

2011 ANNUAL REPORT OF THE UNITED STATES TO ICCAT*U.S. Department of Commerce, NOAA Fisheries¹**October 2011*Summary

Total (preliminary) reported U.S. catch of tuna and swordfish, including dead discards, in 2010 was 9,190 MT, a decrease of about 5% from 9,632 MT in 2009. Estimated swordfish catch (including estimated dead discards) slightly decreased from 2,878 MT in 2009 to 2,845 MT in 2010, and provisional landings from the U.S. fishery for yellowfin slightly decreased in 2010 to 2,648 MT from 2,788 MT in 2009. U.S. vessels fishing in the northwest Atlantic caught in 2010 an estimated 925 MT of bluefin, a decrease of 303 MT compared to 2009. Provisional skipjack landings decreased by 65 MT to 54 MT from 2009 to 2010, estimated bigeye landings slightly increased by about 157 MT compared to 2009 to an estimated 673 MT in 2010, and estimated albacore landings increased by 140 MT from 2009 to 328 MT in 2010.

In 2010, the United States continued research on several tuna and tuna-like species in several areas such as genetics, age and growth, tagging, habitat utilization, and assessment modeling, among others. The U.S. Atlantic tagging program continued in 2010 and it tagged and released 1,865 billfishes (including swordfish) and 431 tunas during the year. The U.S. Pelagic Observer Program was deployed in 2010 with a target coverage of 8% of the sets of the fleet; however, the expanded observer coverage in the Gulf of Mexico during the bluefin tuna spawning season continued this year observing approximately 58% of the longline sets during this period. The bottom longline observer program was also active from January to December 2010, and a total of 161 hauls on 105 trips were observed. During calendar year 2010, the United States achieved 14.2 percent observer coverage expressed as a proportion of reported sets and 13.9 percent as a proportion of reported hooks in the Atlantic pelagic longline fishery for highly migratory species.

In 2010, the United States met its obligations with regard to the implementation of ICCAT's conservation and management measures. Furthermore, the United States takes an ecosystem approach to management of highly migratory species and implements a number of measures go beyond the measures required in ICCAT recommendations. The United States implemented its western bluefin tuna 2010 and 2011 quotas as well as the two-year balancing period for limiting the harvest of bluefin tuna measuring less than 115 cm (45 inches) to 10 percent (by weight) of the U.S. quota. The United States also implemented the reduction in the amount of underharvest that may be carried forward to 2011 (i.e., not to exceed 10 percent of the initial quota allocation). The United States has prohibited all commercial retention of billfish since 1988 and maintains regulations that prohibit all landings of blue and white marlins by any method other than rod and reel. In 2011, the United States implemented the measures for northern swordfish adopted by ICCAT in 2010, including the U.S. catch limit of 3,907 mt ww, the provision allowing the United States to catch up to 200 mt of its North Atlantic swordfish quota between 5 degrees North latitude and 5 degrees South latitude, and the provision to transfer 25 mt to Canada.

At present, the Atlantic pelagic longline fishery of the United States typically targeting ICCAT-managed species, such as swordfish and bigeye, albacore, skipjack and yellowfin tunas, is subject to several discrete time/area closures to reduce all bycatch (*e.g.*, undersized swordfish, billfish, *etc.*). Furthermore, pelagic longline vessels may only fish for ICCAT species if they observe strict circle hook and bait restrictions and use approved sea turtle release gear in accordance with release and handling protocols. Effective in May 2011, the United States now requires the use of "weak hooks" by pelagic longline vessels fishing in the Gulf of Mexico to reduce bycatch of bluefin tuna by pelagic longline vessels targeting other species, such as swordfish and yellowfin tuna. The United States submitted its report on the history of U.S. swordfish fishing and development plan on September 15, 2011, pursuant to ICCAT Recommendation 10-02.

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The United States continues to fulfill the requirements of ICCAT's shark recommendations through data collection programs and domestic management measures including a requirement to keep shark fins naturally attached. The United States has catch limits in place for Atlantic porbeagle, shortfin mako, and blue sharks and will continue to submit catch and effort data for sharks to ICCAT. The United States also has measures to prohibit harvest of bigeye thresher sharks in all ICCAT fisheries. The United States also fully implements the requirements of Rec. 10-07 and 10-08, which prohibit retaining, transshipping, landing, storing, or selling hammerhead sharks in the family Sphyrnidae (except for *Sphyrna tiburo*) and oceanic whitetip sharks (*Carcharhinus longimanus*) caught in association with ICCAT fisheries, respectively.

1. NATIONAL FISHERIES INFORMATION

Total (preliminary) reported U.S. catch of tuna and swordfish, including dead discards, in 2010 was 9,190 MT, a decrease of about 5% from 9,632 MT in 2009. Estimated swordfish catch (including estimated dead discards) slightly decreased from 2,878 MT in 2009 to 2,845 MT in 2010, and provisional landings from the U.S. fishery for yellowfin slightly decreased in 2010 to 2,648 MT from 2,788 MT in 2009. U.S. vessels fishing in the northwest Atlantic caught in 2010 an estimated 925 MT of bluefin, a decrease of 303 MT compared to 2009. Provisional skipjack landings decreased by 65 MT to 54 MT from 2009 to 2010, estimated bigeye landings slightly increased by about 157 MT compared to 2009 to an estimated 673 MT in 2010, and estimated albacore landings increased by 140 MT from 2009 to 328 MT in 2010.

2. STATISTICS AND RESEARCH

2.1 Fisheries Statistics

2.1.1 Tropical Tuna Fishery Statistics

Yellowfin Tuna. Yellowfin is the principal species of tropical tuna landed by U.S. fisheries in the western North Atlantic. Total estimated landings slightly decreased to 2,648 MT in 2010, from the 2009 landings estimate of 2,788 MT (Table 2.1-YFT). The 2010 estimate is considered provisional and may change owing to incorporation of late reports of commercial catches as they become available and to possible revisions in estimates of rod and reel catches. A high proportion of the estimated landings were due to rod and reel catches of recreational anglers in the NW Atlantic (1,109 MT). Estimates of U.S. recreational harvests for tuna and tuna-like species are periodically reviewed and this may result in the need to report additional revisions to the available estimates in the future. In the case of commercial landings, the highest proportion of estimated landings in 2010 corresponded to the U.S. longline fleet operating in statistical area LLYF12 (745 MT). Nominal catch rate information from logbook reports (longline catch per 1,000 hooks) for yellowfin by general fishing areas is shown in Figure 2.1.

Table 2.1-YFT. Annual Landings (MT) of Yellowfin Tuna from 2006 to 2010

Area	Gear	2006	2007	2008	2009	2010
NW Atlantic	Longline	701.7	757.8	460.5	416.4	744.6
	Gillnet	4.7	4.2	0.6	0.0	0.5
	Handline	105.1	113.2	30.1	58.7	44.2
	Trawl	0.7	2.4	0.0	0.0	1.6
	Troll	0.0	6.9	2.4	5.4	1.2
	Trap	0.0	0.0	0.05	0.1	1.4
	Rod and Reel*	4,649.2	2,726	657.1	742.6	1,087
	Unclassified	3.9	7.0	1.4	2.2	10.2
Gulf of Mexico	Longline	1,128.5	1,379.3	756.5	1,147	506.4
	Handline	49.9	26.2	11.2	21.6	13.7
	Rod and Reel*	258.4	227.6	366.3	264.7	18
Caribbean	Longline	179.7	255.6	107.1	136.7	183.4
	Trap	0.4	0.0	0.0	0.0	0.0
	Gillnet	0.0	0.0	0.04	0.04	0.0
	Handline	7.8	9.1	3.7	3.3	1.9
	Rod and Reel*	0.0	12.4	9.7	3.5	4.5
NC Area 94A	Longline	0.0	1.8	0.4	0.0	0.0
SW Atlantic	Longline	0.0	0.0	0.0	0.0	28.7
TOTAL		7,090.0	5,529.5	2,407.2	2,802.3	2,648.1

* Rod and Reel catches and landings represent estimates of landings based on statistical surveys of the U.S. recreational harvesting sector.

Skipjack Tuna. Skipjack tuna also are caught by U.S. vessels in the western North Atlantic, but it is a minor component of the U.S. total tuna landings. Total reported skipjack landings (preliminary) decreased from 119.4 MT in 2009 to 54.7 MT in 2010 (Table 2.2-SKJ). Estimates of recreational harvests of skipjack continue to be reviewed and could be revised again in the future. Figure 2.2 presents nominal catch rate information (longline catch per 1,000 hooks) based on logbook reports.

Area	Gear	2006	2007	2008	2009	2010
NW Atlantic	Longline	0.04	0.0	0.1	0.4	1.4
	Gillnet	0.2	0.07	0.04	3.3	0.2
	Handline	0.2	0.3	0.4	2.8	1.7
	Trawl	0.7	0.005	0.003	0.0	0.0
	Trap	0.3	0.0	0.0	0.0	0.0
	Pound net	0.5	0.0	0.0	0.0	0.0
	Rod and Reel*	34.6	27.4	21.0	75.7	28.9
	Unclassified	0.06	0.6	0.5	1.2	0.1
Gulf of Mexico	Longline	0.0	0.0	0.05	0.05	0.05
	Handline	0.0	0.2	0.06	0.2	0.1
	Rod and Reel*	6.4	23.9	16.3	22.0	15.5
Caribbean	Longline	0.2	0.02	1.3	0.05	0.0
	Trap	0.05	0.0	0.0	0.0	0.0
	Gillnet	0.02	0.0	0.01	0.6	0.0
	Handline	10.0	13.7	16.0	8.8	6.2
	Rod and Reel*	7.7	0.2	11.3	4.3	0.4
TOTAL		61.0	66.5	67.1	119.4	54.7

* Rod and Reel catches and landings represent estimates of landings and dead discards based on statistical surveys of the U.S. recreational harvesting sector.

Bigeye Tuna. The other large tropical tuna reported in catches by U.S. vessels in the western North Atlantic is bigeye tuna. Total reported catches and landings (preliminary) for 2010 increased by approximately 158 MT from 515.2 MT in 2009 to 673.4 MT (Table 2.3-BET). Note that, like yellowfin tuna, the estimates of rod and reel catch are considered provisional and may be revised based on results of a future review of recreational harvest estimates. Figure 2.3 presents nominal catch rates (longline catch per 1,000 hooks) estimated from logbook reports.

Area	Gear	2006	2007	2008	2009	2010
NW Atlantic	Longline	469.4	331.9	380.2	384.7	528.8
	Gillnet	0.2	1.0	0.04	0.0	0.0
	Handline	21.5	16.8	6.9	4.6	2.5
	Harpoon	0.2	0.0	0.0	0.0	0.0
	Trawl	0.0	0.4	0.0	0.0	1.2
	Trap	0.0	0.0	0.0	0.3	0.7
	Troll	0.0	0.9	0.8	0.6	0.0
	Rod and Reel*	422.3	126.8	70.9	77.6	115.5
	Unclassified	0.8	0.9	2.1	1.9	6.7
Gulf of Mexico	Longline	37.7	37.0	14.0	19.5	8.1
	Handline	1.5	0.01	0.0	0.07	0.06
	Rod and Reel	24.3	0.0	0.0	0.0	0.8
Caribbean	Longline	10.5	3.4	8.9	22.2	5.1
NC Area 94A	Longline	3.0	8.4	4.6	3.7	3.7
SW Atlantic	Longline	0	0	0	0	0.2
TOTAL		991.4	527.3	488.5	515.2	673.4

* Rod and Reel catches and landings represent estimates of landings and dead discards based on statistical surveys of the U.S. recreational harvesting sector.

2.1.2 Temperate Tuna Fishery Statistics

Albacore Tuna. Albacore are landed by U.S. vessels; however, historically, albacore has not been a main target of the U.S. commercial tuna fisheries operating in the North Atlantic. Reported commercial catches were relatively low prior to 1986; however, these catches increased substantially and remained at higher levels throughout the 1990s, with nearly all of the production coming from the northeastern U.S. coast. The U.S. landings from the Caribbean increased in 1995 to make up over 14% of the total U.S. harvest of albacore, but have since remained below 4% of the total. Nominal catch rates from U.S. pelagic longline logbook reports are shown in Figure 2.4. Estimated total catches of albacore were 329 MT in 2010, an increase of 140 MT from 2009 (Table 2.4-ALB).

Table 2.4-ALB. Annual Landings (MT) of Albacore Tuna from 2006 to 2010						
Area	Gear	2006	2007	2008	2009	2010
NW Atlantic	Longline	84.8	109.9	107.2	141	165.3
	Gillnet	2.1	1.0	2.1	5.6	0.5
	Handline	2.6	5.4	0.2	0.5	2.0
	Trawl	1.1	0.3	0.01	0.08	0.03
	Trap	0.5	0.4	0.005	0.01	0.2
	Troll	0.0	0.2	0.2	0.07	0.04
	Rod and Reel*	284.2	393.6	125.2	22.8	46.3
	Unclassified	5.6	4.2	2.0	1.3	2.2
Gulf of Mexico	Longline	7.6	15.4	10.2	16.7	7.1
	Handline	0.07	0.0	0.0	0.01	0.01
Caribbean	Longline	10.5	1.2	0.4	0.3	0.7
	Rod and Reel*	0.0	0.0	0.0	0.0	103.6
	Handline	0.4	0.2	0.4	0.003	0.05
NC Area 94A	Longline	0.03	0.3	0.08	0.3	0.6
TOTAL		399.5	532.1	248.1	187.9	328.7

* Rod and Reel catches and landings represent estimates of landings and dead discards based on statistical surveys of the U.S. recreational harvesting sector.

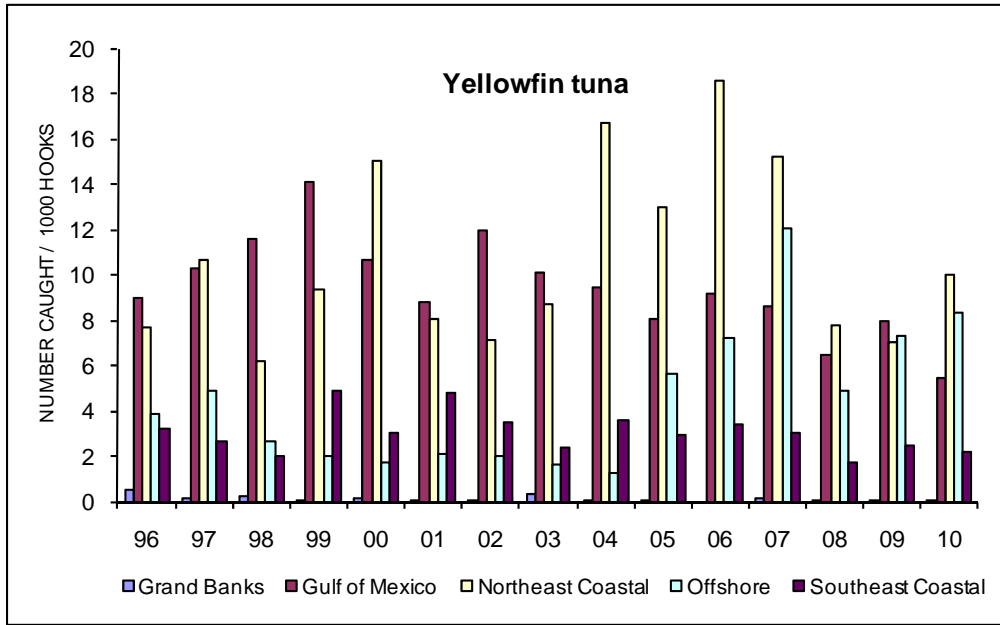


Figure 2.1 – YFT. Nominal catch rates for YFT in U.S. pelagic longline logbook reports

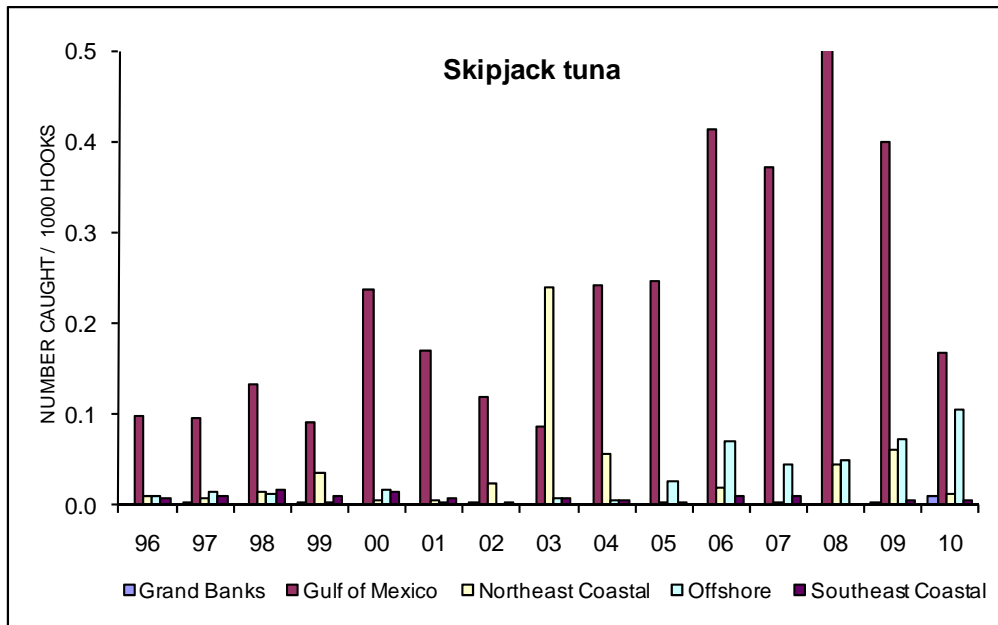


Figure 2.2 – SKJ. Nominal catch rates for SKJ in U.S. pelagic longline logbook reports.

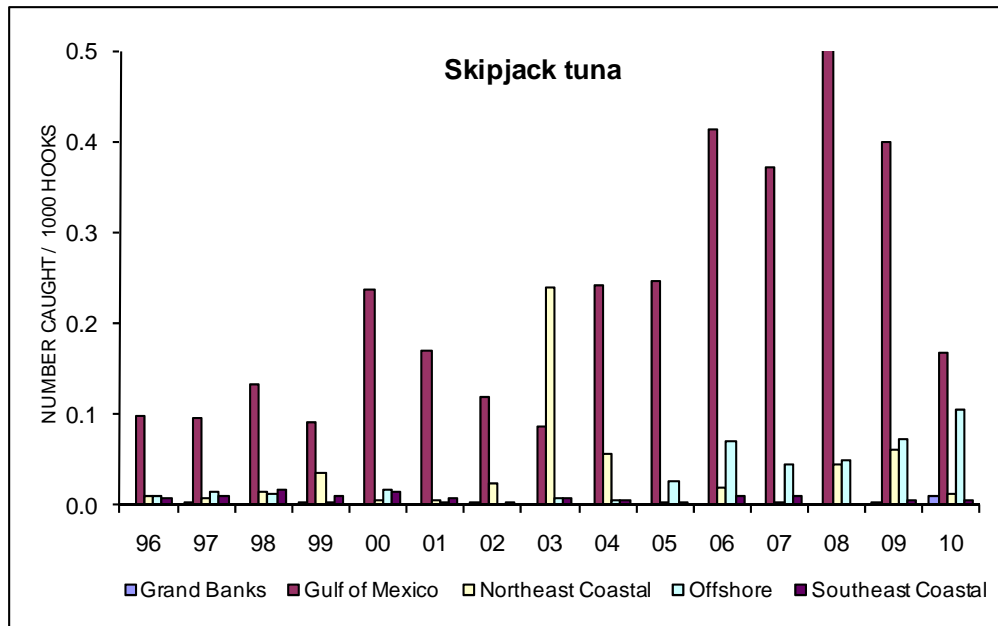


Figure 2.3 – BET. Nominal catch rates for BET in U.S. pelagic longline logbook reports.

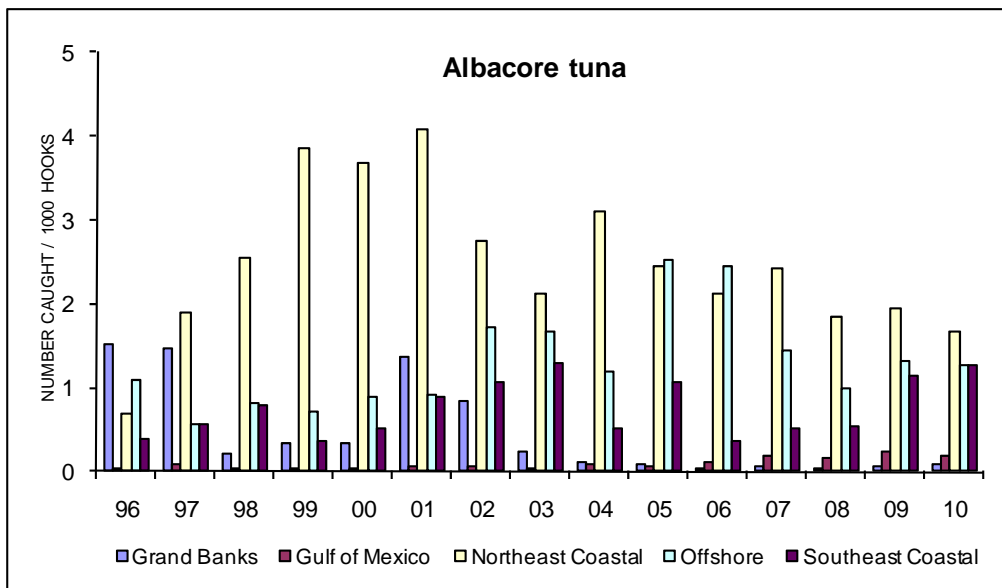


Figure 2.4 – ALB. Nominal catch rates for ALB in U.S. pelagic longline logbook reports.

Bluefin Tuna. The U.S. bluefin fishery continues to be regulated by quotas, seasons, gear restrictions, limits on catches per trip, size limits, and no-sale provisions for the U.S. angling category. To varying degrees, these regulations are designed to manage total U.S. landings in conformance with ICCAT recommendations. U.S. 2009 provisional estimated landings and dead discards from the northwest Atlantic (including the Gulf of Mexico) were approximately 803 MT and 122 MT, respectively. Those estimated landings and dead discards represent a decrease of approximately 303 MT from the 2009 estimates. The 2010 landings by gear were: 29 MT by harpoon, 682 MT by rod and reel, and 211 MT caught as bycatch by longline directed fisheries for other species (including discards) of which 55 MT were from the Gulf of Mexico.

In response to 1992 regulations limiting the allowable catch of small fish by U.S. fishermen, in conformity with ICCAT agreements, enhanced monitoring of the rod and reel fishery was implemented in 1993 for the purpose of providing near real-time information on catch levels by this fishery. This monitoring activity has continued and has included estimation of catches by finer scale size categories than reported above. The preliminary estimates for the 2010 rod and reel fishery off the northeastern United States (including the North Carolina winter fishery) for landings in several size categories were 43 fish < 66 cm, 1876 fish 66-114 cm, 2065 fish 115-144 cm and 706 fish 145-177 cm (an estimated 0.21, 31, 80, and 59 MT, respectively). Note that additional rod and reel landings of bluefin >177 cm SFL, monitored through a sales reporting system, are included in Table 2.5-BFT.

Table 2.5-BFT. Annual Catches (MT) of Bluefin Tuna from 2006 to 2010						
Area	Gear	2006	2007	2008	2009	2010
NW Atlantic	Longline**	104.4	70.7	107.1	123.7	139.4
	Handline	0.3	0.0	0.6	0.1	2.7
	Harpoon	30.3	22.5	30.2	65.6	29.0
	Purse seine	3.6	27.9	0.0	11.4	0.0
	* Rod and reel (>145 cm LJFL)	217.2	235.4	305.7	717.1	570.8
	* Rod and reel (<145 cm LJFL)	158.2	398.6	352.2	143.3	111.4
	Unclassified	0.0	0.0	0.3	0.0	0.0
Gulf of Mexico	Longline**	88.1	81.2	111.6	111.3	54.6
NC Area 94A	Longline**	12.1	12.4	12.3	56.0	17.5
TOTAL		614.8	848.7	919.9	1,228.6	925.3

* Rod and Reel catches and landings represent estimates of landings and dead discards when available based on statistical surveys of the U.S. recreational harvesting sector.

** includes *landings* and *estimated discards* from scientific observer and logbook sampling programs

2.1.3 Swordfish Fishery Statistics

For 2010, the provisional estimate of U.S. vessel landings and dead discards of swordfish was 2,845 MT (Table 2.6-SWO). This estimate represents a slight decrease from the 2,878 MT estimated for 2009. The provisional landings, including discard estimates, by ICCAT area for 2010 (compared to 2009) were: 288 MT (494 MT) from the Gulf of Mexico (Area BIL91); 2,210 MT (1,865 MT) from the northwest Atlantic (Area BIL92); 41 MT (23 MT) from the Caribbean Sea (Area BIL93); and 305 MT (496 MT) from the North Central Atlantic (Area BIL94A).

U.S. swordfish landings are monitored in-season from reports submitted by dealers, vessel owners and captains, NMFS port agents, and mandatory daily logbook reports submitted by U.S. commercial vessels permitted to fish for swordfish. The U.S. swordfish longline fishery is also being monitored via a scientific observer sampling program, instituted in 1992. Approximately 8% of the longline fleet-wide fishing effort is randomly selected for observation during the fishing year. The observer sampling data, in combination with logbook reported effort levels, support estimates of approximately 8,510 fish discarded dead in 2010. For the North Atlantic (including Gulf of Mexico and Caribbean Sea), the estimated tonnage discarded dead in 2010 was 131 MT, of which 126 was estimated due to longline gear. Overall, the estimates of dead discarded catch decreased by about 17 MT compared to the 2009 levels, which corresponded to approximately 5% of the commercially landed catch.

Total weight of swordfish sampled for sizing U.S. commercial landings by longline, trawl, and handline was 1,967 MT, 18 MT, and 122 MT in 2010. The weight of sampled swordfish landings in 2010 were 95%, 85%, and 93% of the U.S. total reported annual landings of swordfish for longline, trawl, and handline, respectively. Again, incorporation of late reports into the estimated 2010 landings figure will likely result in changes in the sampled fraction of the catch. Recent estimates of rod and reel landings of swordfish based on surveys of recreational anglers, range from about 5-76 MT per year within the period 1996-2010.

Table 2.6-SWO. Annual Catches (MT) of Swordfish from 2006 to 2010

Area	Gear	2006	2007	2008	2009	2010
NW Atlantic	Longline**	1,165.2	1,649.6	1,622.5	1,696	1,897
	Gillnet	0.0	0.2	0.0	0.05	0.0
	Handline	32.5	125.2	83.2	123	220.6
	Harpoon	0.3	0.0	0.0	0.05	0.6
	Trawl	3.5	6.5	7.6	23.7	21.1
	Trap	0.0	0.0	0.0	0.0	1.8
	Rod and Reel*	50.6	65.9	56.7	19.0	63.7
	Unclassified	0.2	0.2	0.2	0.0	2.1
	Unclassified discards	5.1	5.5	4.1	3.0	3.6
Gulf of Mexico	Longline**	328.1	457.7	361.6	476.1	281.5
	Handline	0.1	0.2	1.2	1.9	2.6
	Rod and Reel*	2.1	2.3	19.0	12.6	2.8
	Unclassified discards	2.7	5.5	4.6	3.5	1.3
Caribbean	Longline**	88.9	27.8	57.9	22.6	41.4
	Handline	0.0	0.0	0.0	0.003	0.0
	Unclassified discards	0.0	0.0	0.0	0.2	0.04
NC Area 94A	Longline**	378.6	338.9	311.6	496.4	304.8
	Unclassified discards	0.0	0.5	0.0	0.0	0.01
SW Atlantic	Longline**	0.0	0.0	0.0	0.0	0.3
TOTAL		2,057.9	2,682.8	2,530.3	2,878	2,845.4

* Rod and Reel catches and landings represent estimates of landings and dead discards when available based on statistical surveys of the U.S. recreational harvesting sector.

** includes *landings* and *estimated discards* from scientific observer and logbook sampling programs

2.1.4 Marlins and Sailfish Fishery Statistics

Blue marlin, white marlin, and sailfish are landed by U.S. recreational rod and reel fishermen and are a bycatch of the U.S. commercial tuna and swordfish longline fisheries. The U.S. Fisheries Management Plan for Atlantic Billfishes was implemented in October 1988. The Plan allows billfish that are caught by recreational gear (rod and reel) to be landed only if the fish is larger than the minimum size specified for each species covered by the Plan. Recreational landings of each billfish species can be estimated using: (a) the Southeast Fisheries Science Center (SEFSC) Recreational Billfish Survey (RBS) which provides the number of billfish caught during tournaments held along the southeastern U.S. coast (south of 35° N latitude), in the Gulf of Mexico, and U.S. Caribbean Sea regions (i.e., U.S. Virgin Islands and Puerto Rico); (b) the Large Pelagics Recreational Survey (LPS) conducted by the National Marine Fisheries Service (NMFS) which provides estimates of recreational harvest of highly migratory species (including billfish), from waters along the northeastern U.S. (north of 35° N latitude); (c) Marine Recreational Fishery Statistics Survey (MRFSS); (d) a Headboat survey (large multi-party charter boats); and/or (e) a coastal sport fishing survey of the Texas recreational fishery (TPW). In addition, recreational catch statistics by self-reported catch cards also document billfish landings in some states.

The estimates of 2010 U.S. recreational rod and reel landings for these billfish species, combining the geographical areas of the Gulf of Mexico (Area BIL91), the northwestern Atlantic Ocean west of the 60° W longitude (Area BIL92), and the Caribbean Sea (Area BIL93) are: 4.4 MT for blue marlin, 2.1 MT for white marlin, and 3.8 MT for sailfish. The estimates for 2009 were: 6.2 MT for blue marlin, 1.6 MT for white marlin, and 2.8 MT for sailfish.

In addition to restrictions on U.S. recreational harvest, the Management Plan also imposed regulations on commercial fisheries by prohibiting retention and sale of the three species at U.S. ports. For this reason, there are no U.S. commercial landings for any of the three Atlantic species. However, estimates of dead discards in the U.S. longline fleet are made using the data from mandatory pelagic logbooks and scientific observer data collected on this fleet. The procedure for estimating the historical bycatch of blue marlin, white marlin, and sailfish was detailed in SCRS/96/97-Revised. This procedure was implemented for estimating bycatch mortalities from the U.S. longline fleet. Revisions to historical landings of billfish previously reported to ICCAT were based on review of the estimates conducted at the 1996 ICCAT Billfish Workshop held in Miami, FL (USA). Estimates of the billfish bycatch discarded dead in the U.S. commercial longline and other commercial fisheries in 2010 were 17.2 MT for blue marlin, 7.6 MT for white marlin, and 4.2 MT for sailfish. The estimated 2009 U.S. discarded dead bycatch was 36.7 MT, 9.3 MT, and 9.2 MT, respectively for the three species.

2.1.5 Shark Fishery Statistics

The U.S. Federal Fisheries Management Plan (FMP) implemented in 1993 (NMFS 1993) identified three management groups: large coastal sharks, small coastal sharks, and pelagic sharks. The pelagic complex included ten species: shortfin mako (*Isurus oxyrinchus*), longfin mako (*Isurus paucus*), porbeagle (*Lamna nasus*), thresher (*Alopias vulpinus*), bigeye thresher (*Alopias superciliosus*), blue (*Prionace glauca*), oceanic whitetip (*Carcharhinus longimanus*), sevengill (*Heptranchias perlo*), sixgill (*Hexanchus griseus*), and bigeye sixgill (*Hexanchus vitulus*). The 1993 FMP classified the status of pelagic sharks as unknown because no stock assessment had been conducted for this complex. The Maximum Sustainable Yield (MSY) for pelagic sharks was set at 1,560 mt dressed weight (dw), which was the 1986-1991 commercial landings average for this group. In 1997, as a result of indications that the abundance of Atlantic sharks had declined, commercial quotas for large coastal, small coastal, and pelagic sharks were reduced. The quota for pelagic sharks was set at 580 mt. In 1999, the U.S. FMP for Atlantic Tunas, Swordfish, and Sharks (NMFS 1999) implemented the following measures affecting pelagic sharks: 1) a reduction in the recreational bag limit to 1 Atlantic shark per vessel per trip, with a minimum size of 137 cm fork length for all sharks, 2) an increase in the annual commercial quota for pelagic sharks to 853 mt dw, apportioned between porbeagle (92 mt), blue sharks (273 mt dw), and other pelagic sharks (488 mt dw), with the pelagic shark quota being reduced by any overharvest in the blue shark quota, and 3) making the bigeye sixgill, sixgill, sevengill, bigeye thresher, and longfin mako sharks prohibited species that cannot be retained. Regulations on prohibited species went into effect in 2000, whereas those on pelagic shark quotas were enacted in 2001. Presently, the commercial quotas for pelagic sharks are 273 mt dw (blue sharks), 1.7 mt dw (porbeagles), and 488 mt dw (pelagic sharks other than porbeagle or blue).

Landings and dead discards of sharks by U.S. pelagic longline fishermen are monitored and reported to ICCAT. In 2010, the species of shark with largest amount of landings (in weight) corresponded to shortfin mako with a total of ca. 217 mt whole weight (ww), followed by blue shark, thresher sharks (*Alopias spp.*), and hammerhead sharks (*Sphyrna spp.*) with ca. 8.4, 7.9, and 4.8 mt ww, respectively.

In 2010, estimates of dead discards for blue shark amounted to almost 164 mt ww, the largest amount of any shark species discarded by this fleet. The second largest amount of dead discards by this fleet corresponded to scalloped hammerhead shark with ca. 50 mt ww followed by night shark with 42 mt ww. Dead discards of bigeye thresher, longfin mako, silky, and dusky sharks were estimated at ca. 27, 26, 21, and 21 mt ww, respectively.

2.2. Research Activities

2.2.1 Bluefin Tuna Research

As part of its commitment to the Bluefin Year Program, research supported by the United States has concentrated on ichthyoplankton sampling, tagging and biological sampling from fisheries.

Ichthyoplankton surveys in the Gulf of Mexico during the bluefin spawning season were continued in 2010 and 2011. In addition to the regular survey, which occurs over a fixed spatial grid in May, adaptive sampling was carried out in spring 2010 and 2011 in collaboration with NASA and scientists from Mexico (INAPESCA). Adaptive sampling focused on the western Caribbean, with stations sampled between the Windward Passage and the Yucatan Peninsula. Station selection was guided by a larval habitat model, run on remotely sensed satellite data. Preliminary visual identifications suggest larval occurrence only along the Yucatan Peninsula, inshore of the Caribbean Current. This confirms results from less extensive sampling in 2009 and 2010. In addition, work was completed examining overlap between observed surface oil from the 2010 Deepwater Horizon oil spill and bluefin tuna spawning grounds. Results suggest a maximum of approximately 5% of larval habitat was covered with observed surface oil on a weekly basis between April 20th and May 31st, 2010, with up to 11% of larval habitat covered by potentially contaminated water. Work has continued on a collaborative project investigating the potential effects of climate change on bluefin tuna spawning grounds in the Gulf of Mexico, through to the end of the 21st century. Results suggest that in the future, spawning may be initiated earlier in the year, due to warming water temperatures, and that spawning activity may be curtailed in the warmer months of May and June. In July 2011, larval bluefin tuna scientists from the United States and Spain attended an informal workshop, to discuss parallel lines of research, and potential future collaboration efforts. Environmental constraints on larval distributions between the Gulf of Mexico and Mediterranean Sea were discussed, as were variables influencing larval feeding, growth and survival.

The Large Pelagic Research Center, University of Massachusetts (LPRC) deployed sixteen PSAT tags (Microwave Telemetry Inc., X-tag model) on juvenile bluefin tuna in 2010. Of these sixteen tags, so far they have received data from seven tags and have four tags apparently still on mission, scheduled to report in late 2011. In partnership with the St. Andrews Biological Lab (DFO), 28 PSATS were deployed on adult ABFT in 2010. So far, data have been received from nineteen tags with the remaining tags scheduled to report by October 2011. The pup tag deployments on ABFT since 1997 now exceed 477 tags. The LPRC has also collected gonad samples from >250 bluefin tuna over four years from the Gulf of Mexico. Histological examination and maturity classification has been completed, and thus far, the majority of fish are actively spawning or immediately post-spawning. Stereological analysis on ovarian tissue has been completed on samples from the Gulf of Mexico and the Mediterranean Sea. Statistical comparisons of these data will provide insights into the spawning condition of bluefin tuna from both known spawning grounds.

The NOAA Fisheries Southeast Fisheries Science Center deployed 5 PSAT tags on giant bluefin tuna caught by longliner operations in the Gulf of Mexico as part of a post-release survival study in 2010 and 2011. Delays in the resumption of normal fishing activities following the disruptions caused by the DWH spill, combined with the effects of the newly required “weak hooks”, have limited opportunities to tag. The program anticipates working in conjunction with the weak hook study in the GOM starting Feb. 1, 2012.

Scientists from Stanford University and the Tag-A-Giant research team continued to deploy electronic tags on bluefin tuna in the western Atlantic in 2010-11 (n=51 deployments). Tagging in the Gulf of St. Lawrence (GSL) in collaboration with Canadian scientists and fishermen confirmed a strong linkage between this foraging area and the Gulf of Mexico (GOM) spawning grounds. Data are being examined to compare surface and vertical habitat utilization before, during and after the Deepwater Horizon oil spill. In collaboration with scientists from the University of British Columbia, a Bayesian, spatially explicit, quarterly time step, statistical catch-at-age model that is fitted to conventional and electronic tag-track data, historic catch-at-age reconstructions and otolith microchemistry data on origin is being finalized to better account for stock mixing in assessments. The model, called Multistock Age-Structured Tag-integrated stock assessment model (MAST), reconstructs abundances and depletions from 1950 to 2009 (83% and 67% declines for the western and eastern stocks, respectively) and projects the outcomes of various rebuilding plans. The team continues to use its 26 new microsatellite loci for population assignment of individual fish to one of the known stocks (GOM, eastern Mediterranean, western Mediterranean), allowing among other applications, stock assignment of historical tag tracks that did not include a visit to a documented spawning ground and analysis of regional stock composition over time (e.g., in coastal North Carolina).

The NOAA Fisheries Southeast Fisheries Science Center initiated the first ever comprehensive sampling program for bluefin tuna in 2010, collecting otoliths, dorsal spines, caudal vertebrae and other tissues in a manner representative of the catch. The 2010 pilot program produced only a few dozen otoliths, however an additional 300 were collected opportunistically by the LPRC from a few participating commercial fish houses. Subsequently, SEFSC scientists and contractors met with several university scientists to expand and better coordinate a collaborative approach to sampling both the recreational and commercial fisheries. As a result, the number of fish sampled has increased markedly, with several hundred samples having already been taken (covering all of the major fisheries). The various parties will collaborate on analyses of the collected specimens, for purposes such as determining stock and age structure, as well as age and growth (including looking for potential changes in growth over time).

Scientists from Texas A & M University and the University of Maryland assigned natal origin (Mediterranean Sea or Gulf of Mexico) to Atlantic bluefin tuna collected off North Carolina (U.S.A.) in 2011, targeting an abundant 2003 year-class. Maximum likelihood estimates of the sample's mixture were based on stable isotope composition, $\delta^{18}\text{O}$ and $\delta^{13}\text{C}$, of base-line natal age-1 juveniles. Estimated contribution rate of Gulf of Mexico members to the 2003 year-class was $64.2\% \pm 15.3\%$ SD. This estimate was robust to error in year-class assignment (i.e., ageing error) but showed moderate imprecision due to low sample size (n=27). When all ages were included from the sampled North Carolina aggregation (3-17 years; N=109), the contribution of Gulf of Mexico was estimated at $50.3\% \pm 7.3\%$. Analysis of archived otoliths from US landed fish of similar size range to the 2003 year-class (154-197 cm) indicated a slightly higher Gulf of Mexico contribution: $77.5\% \pm 10.3\%$ (sample years 1996-1998; N=54). Results support the inference that the 2003 year-class, evident in US fisheries during the past 5 years, received contributions from both natal populations.

Scientists from the University of Massachusetts and University of Maryland are developing a biologically realistic model of Atlantic bluefin tuna stocks, incorporating the best available empirically-derived data, to examine how structure and connectivity influence population and fishery dynamics. The simulation framework allows for representation of population structure (i.e., multiple spawning components) and varying rates and patterns of movement among areas.

From late March through mid June 2010, the NOAA Fisheries Southeast Fisheries Science Center conducted extensive observations of the pelagic longline fishery in the Gulf of Mexico. Roughly 50% of known fishing trips and a higher percentage of total effort was observed. Various biological samples were taken from the bluefin including otoliths, gonads and muscle. Contracts were awarded to conduct research on bluefin stock structure, growth, gender determination and reproduction.

At the same time as the extended coverage observer program, the NOAA Fisheries Southeast Fisheries Science Center has been assessing the efficacy of a new 16/0 "weak" circle hook designed to reducing the bycatch mortality of bluefin tuna in the directed yellowfin tuna fishery in the Gulf of Mexico. The 2008-10 study was a continuation of research conducted in April, 2007 to examine "weak link" concepts which would allow bluefin tuna to escape capture on pelagic longlines, while retaining yellowfin tuna. Results of the study indicate that the new circle hook

design reduces the bluefin tuna catch rate by an estimated 56.5% with no significant reduction in the target catch of yellowfin tuna. Consequently, the National Marine Fisheries Service published a final rule requiring the new hook design in the Gulf of Mexico pelagic longline fishery effective May 5th, 2011. Research on this new bycatch reduction technology will continue through 2012 in order to improve the statistical precision and confidence of the results and assess how quickly the escapement occurs.

2.2.2 Swordfish Research

U.S. and Canadian scientists reported in 2010 on collaborative tagging programs of the United States and Canada. Recognizing there are benefits in pooling available PSAT data, Canada (DFO, St. Andrews Biological Station) approached the SEFSC (Miami) and the Marine Resources Research Institute of the South Carolina Department of Natural Resources to collaborate. Both laboratories maintain or have maintained active swordfish tagging programs. Taken together, these labs constitute all the available information from swordfish electronic tagging programs on the east coast of North America, and cover deployments ranging from Newfoundland to Florida. An FTP site for sharing this information has been established, courtesy of the SEFSC. A Canadian-funded contract with CLS Argos (Toulouse, France) has been developed, which will allow a common and mutually-agreed analyses method to be applied to the most informative individual tracks. It is envisaged that this approach should provide a comprehensive insight into swordfish migrations off eastern North America.

U.S. scientists reported information from 31 pop-up satellite archival tags attached to swordfish from the eastern Pacific, central Pacific, and western North Atlantic-Caribbean. Diel vertical movement patterns were described, including correlations with temperature and light levels. It was suggested that swordfish vertical distribution patterns, especially during daytime, are influenced largely by resource availability. At night, when swordfish are typically targeted by fisheries, both ambient light and temperature influence movements. Understanding vertical movement patterns of swordfish can help evaluate gear vulnerability, improve population assessments, and potentially reduce fisheries bycatch.

U.S. scientists also evaluated the post-release behavior modification (possibly a result of capture and handling stress) of several HMS species, including swordfish, using empirical eigen function analysis to detect changes in vertical movement patterns recorded by 183 pop-up satellite archival tags (PSATs) deployed on large pelagic fish, including 16 swordfish. Decreased vertical movement characterized the irregular behavior of blue sharks and porbeagles, whereas all other species, including swordfish, showed increased vertical activity. This approach provides a useful method of revealing behavioral modification during the post-release recovery period of PSAT-tagged large pelagic fish, although the extent of influence on normal behavior is not fully understood.

Scientists from Nova Southeastern University in Florida report that socio-economic analyses of swordfish and sailfish recreational tournaments in the Florida Straits is underway, as well as a Cooperative Research Program (CRP) funded study of 20 PSATs deployed on swordfish in the Florida Straits. This program is being conducted by Nova Southeastern University in association with the SEFSC and UM/RSMAS. Results of these programs should be available in the near future.

A U.S. scientist participated in the ICCAT SCRS Mediterranean swordfish stock assessment meeting, held in Madrid, Spain, June 28 to July 2, 2010.

2.2.3 Tropical Tunas Research

U.S. scientists participated in the ICCAT SCRS bigeye tuna data preparatory meeting, held in Madrid, Spain, April 26 to 30, 2010. U.S. scientists also participated in the ICCAT SCRS bigeye tuna stock assessment meeting, held in Pasaia, Gipuzkoa, Spain, July 5 to 9, 2010.

In 2010, SEFSC scientists have presented several papers to the SCRS concerning tropical tunas. A stock synthesis assessment model was developed and evaluated for bigeye tuna. This tool was also used to compare the outcomes of a range of various assessment models (from simple stock production models through a more complex fully

integrated model) when applied to available data for bigeye. Abundance indices were developed for bigeye from U.S. pelagic longline fleet data, and a SEFSC scientist collaborated with Portuguese scientists on the development of bigeye abundance indices from Azores baitboat fleet data. Bigeye tuna was also used as a case study to evaluate the incorporation of scientific uncertainty in defining precautionary management targets. A U.S. scientist also participated in describing how sampling coverage affects by-catch estimates in the purse seine fishery.

U.S. scientists have continued to conduct cooperative research with scientists from Mexico, pursuing the development of indices of abundance for species of concern to ICCAT in the Gulf of Mexico as well as descriptive analyses of that fishery.

Scientists at NOAA's Southeast Fisheries Science Center (SEFSC) have been collaborating since 2008 with the Texas A & M University, using popup satellite archival tag (PSAT) technology to evaluate habitat use of yellowfin tuna in the Gulf of Mexico. Fish were captured using rod and reel gear near the edge of the continental shelf in the central Gulf (Mississippi delta region). Progress was made during 2010 and continued through the summer of 2011. A total of 32 tags were deployed on yellowfin tuna ranging from 87-158 cm FL, and were monitored for up to 94 days. Analyses of these data are ongoing, and will help define essential fish habit and improve CPUE standardization approaches.

In response to the Deepwater Horizon oil spill event, SEFSC scientists initiated a pilot study to evaluate the movements, migration patterns and site fidelity of yellowfin tuna in the Gulf of Mexico in order to assess the potential exposure of the stock to contaminants, as well as optimal fishery closure strategies for potential future events. This differed from the work conducted in collaboration with Texas A&M in that generally larger fish were targeted, and longline vessels were used as deployment platforms to also achieve a broader geographic representation of deployment locations, corresponding more closely to the range of the fishery. This study was able to track the movements of five yellowfin for durations of 41 to as much as 172 days. This study has since been funded to deploy an additional 56 tags beginning in 2011 across the Gulf of Mexico fishery (longline and rod and reel) for periods up to one year. In addition to the main study objectives, the resulting data should be of great benefit to improving understanding of stock structure, movement rates, mortality, etc., all important to improving the stock assessments.

2.2.4 Albacore Research

U.S. National Marine Fisheries Service scientists continue to be involved in the development of alternative, more detailed statistical-based models, in efforts to evaluate more fully the relationship between this species' population dynamics and associated fishery operations (i.e., areas of uncertainty in an overall stock assessment). In addition, research is being conducted to improve the implementation of the stochastic approach being used currently to estimate catch-at-age for northern albacore.

A U.S. scientist participated in the 2010 ICCAT Mediterranean albacore data preparatory meeting held in Madrid, Spain June 28 to July 2, 2010.

2.2.5 Mackerels and Small Tunas Research

King mackerel. The last domestic stock assessment of U.S. Gulf of Mexico and South Atlantic king mackerel populations was carried out in 2008. During 2011, SEFSC scientists continued to make routine collections of otolith samples from the directed commercial and recreational fisheries for use in developing age length keys. These updated age length keys will be incorporated into future updated population models. The estimates of age composition from the updated age length keys will enable analysts to evaluate changes in year class strength since the 2008 stock assessment; additional samples can be acquired through cooperative efforts with state entities. In 2010, the North Carolina Division of Marine Resources worked with a Sea Grant researcher to collect king mackerel tournament (KMT) angler CPUE data using a text messaging survey. This was an effort to look at this text messaging technology and to collect and compare the King mackerel CPUE data that we collected in the 1990's.

Spanish mackerel. The last domestic stock assessment of U.S. Gulf of Mexico and South Atlantic Spanish mackerel

populations was carried out in 2008. During 2011, SEFSC scientists continued efforts to acquire otolith samples from the directed commercial and recreational fisheries for use in developing age length keys. These updated age length keys will be incorporated into the next updated population models expected to be made in 2012. The age composition samples will be used to evaluate changes in year class size since the last stock evaluation. Independent researchers from the University of North Carolina are planning in 2012 to conduct stock demographic research and carry out otolith microchemistry examinations of the Gulf of Mexico stock.

2.2.6 Shark Research

The ICCAT Shark Working Group (WG) met in conjunction with the SCRS Sub-Committee on Ecosystems in Madrid, May 31-June 4, 2010, because both working groups have shared interest in conducting Ecological Risk Assessments (ERA). The Shark WG plans to update and expand the 2008 ERA for pelagic sharks starting in 2011.

A cooperative shark research project between Brazil (Universidade Federal Rural de Pernambuco) and the U.S. (NMFS SEFSC Panama City Laboratory and the University of Florida's Florida Museum of Natural History) was initiated in 2007. The main goal of this cooperative project is to conduct simultaneous research on pelagic sharks in the North and South Atlantic Ocean. Central to conducting the research is development of fisheries research capacity in Brazil through graduate student training and of stronger scientific cooperation between Brazil and the U.S. Electronic equipment (hook-timer recorders [HTR] and temperature and depth recorders [TDRs]) was sent from the U.S. to Brazil for deployment aboard commercial longline fishing vessels to investigate preferential feeding times of pelagic sharks and associated fishing depths and temperatures for potential use in habitat-based models and estimation of catchability. To date, seven fishing surveys have been conducted, with 137 sets on commercial pelagic longline fishing vessels carried out between April 2009 and July 2010; each set contained 300 HTRs and 10 TDRs. Preliminary results indicate the importance of the depth of the longline sections and the influence of environmental and operational factors on gear behavior. Mathematical models are also being developed to understand the theoretical longline shoaling and sag ratios. During the fishing operations 11% of the HTRs presented technical problems and did not collect data. A total of 3,537 individuals from 20 species (among them 532 blue sharks, 67 oceanic whitetips, 61 silky sharks, 50 shortfin makos, 21 threshers and 4 manta rays) were caught. Most individuals were caught in the early hours of the night, between 6:00 and 10:00 pm. Of the total number of individuals caught, 87% were hooked during the setting period (18:00 to 22:00), 9% during the haulback (4:00 am to 1:00 pm) and 3% during drifting. Analyses to understand the survivorship of pelagic sharks are still ongoing and will be presented in the future. Additionally, the use of pop-up satellite archival tags (PSATs) on blue, shortfin mako, and other pelagic sharks is intended to provide critical knowledge on daily horizontal and vertical movement patterns, depth distribution, and effects of oceanographic conditions on the vulnerability of these pelagic sharks to pelagic longline fishing gear. Six pop-off satellite archival tags have been deployed to date (2 oceanic whitetip sharks, 3 bigeye threshers and 1 longfin mako) in U.S. Atlantic waters. Data collected for some species are still being analyzed but some preliminary findings have been presented at regional and national conferences. For example, data analyzed for oceanic whitetip shark indicate that the most common depth occupied is less than 75 m (98.2% time) with limited dives to 256 m. Conversely, bigeye thresher dove up to 1464 m and commonly occupied depths from 0-528 m. Archival satellite pop-up tags have also been attached to seven blue sharks and three shortfin mako sharks by pelagic longline fishing vessels in the western South Atlantic Ocean. Of those, data recovered for four female blue sharks and two male shortfin makos have revealed that the female blue sharks moved 1500-4100 km from their release position spending most of the daytime and nighttime hours below and above the thermocline, respectively. The tag of the female that travelled 4100 km popped up in the Gulf of Guinea off the west coast of Africa, indicating a trans-Atlantic migration.

A life history study of several pelagic species (i.e. silky, bigeye thresher and common thresher) was initiated with data collection and sampling on over 100 individuals for age, growth, and reproduction. Reproductive tissues were processed and sectioned using histological techniques. Morphological data on organ measurements have been plotted and will be compared to the histological results. Vertebrae were also processed using histology and image analysis and are currently being read.

Another collaborative project between the SEFSC and Uruguay's fisheries agency (DINARA) entitled "Sustainable fisheries and bycatch reduction of pelagic sharks in the Atlantic Ocean" was initiated in 2009 and continued through 2010. The ultimate goal of this project is to advance knowledge on the productivity and susceptibility of pelagic

sharks to longline fisheries in the western South Atlantic Ocean, aspects which are largely unknown for pelagic sharks in the southern hemisphere. To that end, in 2010 six satellite transmitters (4 PSATs, 2 SPOTs) obtained through grants awarded to conduct this project, were deployed on blue sharks to characterize in detail the spatio-temporal habitat use of this species. The two individuals fitted with SPOT tags (a 127 cm FL female and a 245 cm FL male) were captured in the western South Atlantic Ocean in EEZ waters and headed N-NE for the first five weeks after capture and release at a mean speed of 2 km/h. These individuals were tracked for 60 and 257 days, respectively. Of the four individuals tagged with PSAT tags, two never sent a signal and the other two (a 127 cm FL female and a 122 cm FL male) were deployed for 46 and 146 days, respectively. The immature female (which had been double-tagged with an MK10-PAT tag and a SPOT tag) spent 97% of the time at depths <100m. Preliminary results of this project were recently presented at the 2nd Colombian Meeting of Chondrichthyan Fishes in Cali, Colombia in August 2010.

Staff from DINARA and the SEFSC worked cooperatively on the development of identification guides for pelagic and carcharhinid sharks of the Atlantic Ocean for ICCAT. The guide for pelagic sharks was completed in late 2010 (Guide for the identification of Atlantic Ocean sharks. Domingo et al. ICCAT) and the guide for carcharhinid sharks is expected to be completed in 2011.

As part of a larger program to determine the habitat use and movement patterns of pelagic and semi-pelagic sharks, satellite pop-up archival transmitting (PAT) tags have been deployed on sharks in the U.S. South Atlantic Ocean and Gulf of Mexico. Since 2007, three species of sharks have been tagged with data obtained on three species. An oceanic whitetip shark tagged in the western Gulf of Mexico moved a straight-line distance of 238 km during one track. During the track, the shark rarely dove below 150 m and instead, stayed above the thermocline. The deepest depth attained was recorded from one dive to 256 m. The most frequently occupied depth during the entire track was 25.5-50 m (49.8% total time) and temperature was 24.05-26 °C (44.7% total time). One bigeye thresher shark moved 51 km from the initial tagging location and exhibited a diurnal vertical diving behavior. The most common depths and temperatures occupied were between 25.5-50 m (27.3% total time) and 20.05-22 °C (52.5% total time). The bigeye thresher dove up to 528 m and deeper dives occurred more often during the day with time spent above the thermocline during night. Tags have been deployed on dusky shark; one tag is pending pop-off, four tags transmitted unusable data, and three provided data that could be analyzed. Based on geolocation data, sharks generally traveled an average of 691 km in total. Overall, mean proportions of time at depth revealed dusky sharks spent the majority of their time in waters 0-40 m deep but did dive to depths of 400 m. Dusky sharks occupied temperatures of 20.5-24 °C over 50% of the time. Tagged sharks had varied movement patterns. One shark that was tagged off Key Largo, FL (USA) in January moved north along the east coast of the US, then meandered around the Charleston Bump before continuing north to the North Carolina/Virginia border in June. A second shark also tagged off Key Largo, FL in March traveled south towards Cuba before the tag sent data two weeks later. The third shark, tagged off North Carolina in March, moved little from where it was initially tagged. Data from these species is currently being used as inputs to Ecological Risk Assessments.

2.2.7. Billfish Research

The NMFS SEFSC again played a substantial role in the ICCAT Enhanced Research Program for Billfish in 2010, with a U.S. scientist acting as western Atlantic coordinator (Dr. Eric Prince). The Atlantic-wide coordinator and chairman of the billfish working group is Freddy Arocha (Venezuela). Major accomplishments in the western Atlantic in 2010 were documented in SCRS/10/150. Highlights include 14 at-sea sampling with observers on Venezuelan industrial longline vessels through September 2010. Most of the trips accomplished were on Korean type vessels fishing under the Venezuelan flag. The majority of these vessels are based out of Cumana targeting tuna, swordfish, or both at the same time. Biological sampling during the 2010 season of swordfish, Istiophorids, and yellowfin tuna for reproductive and age determination studies, as well as genetics research were continued at about the same rate as the previous year. Program participants in Venezuela, Grenada, and Barbados continued to assist in obtaining information on tag-recaptured billfish, as well as numerous sharks, in the western Atlantic Ocean during 2010; A total of 45 tagged billfish were recaptured, most of these were blue marlin.

An international collaboration was formalized in 2008 by the NOVA Southeastern University (Dr. Mahmood Shivji) on billfish genetics in 2008 and continued in 2010. Collaborators include Southeast Fisheries Science Center, Venezuela (Instituto Oceanografico, Universidad de Oriente), Uruguay (Recursos Pelagicos, Direccion Nacional de

Recursos Acuáticos), and Brazil (Universidade Federal Rural de Pernambuco). One of the primary goals is to develop accurate estimates of white marlin/round scale spearfish ratios in the Atlantic Ocean, including retrospective analyses. A paper describing some of the preliminary work was published in the *Endangered Species Research*.(9:81-90) in 2009. In addition, a new paper entitled “Occurrence and broad geographic distribution of roundscale spearfish *Tetrapturus georgii* (Teleostei, Istiophoridae) in the central north and western south Atlantic revealed by DNA analysis: implications for white marlin management” was recently submitted by the contractor. This manuscript will hopefully be published in FY2012. The SEFSC finished PSAT research on billfish and oxygen minimum zones in the Atlantic and was published in Fisheries Oceanography in November 2010 issue. The paper was entitled “Ocean scale hypoxia-based habitat compression of Atlantic istiophorid billfishes”. Several of these papers were also published in peer review journals during 2010. Results of the work on Atlantic hypoxia-based habitat compression was presented at the ICES annual conference on climate change in the fall of 2009 (FY2010)..

The Fishery Management Group of the University of Miami is carrying out research on Atlantic billfish on three areas, population parameter estimation, population modeling and development of socio-economic indicators. Others at the University of Miami’s Rosenstiel School and elsewhere are conducting research on early life history, reproductive biology and ecology of billfishes, as well as age and growth estimation.

2.2.8 Seabird research

Only one seabird, a herring gull, boarded dead in the Mid Atlantic Bight (MAB), was observed in the U.S. pelagic longline fishery in 2010. This is in contrast to seven reported seabird catches, including three northern gannets (2 live, 1 dead), three greater shearwater (3 dead), and 1 unidentified bird (1 dead)—all from the Mid-Atlantic Bight (MAB)—in 2009. The US continues to explore modeling approaches for the estimation of total seabird bycatch in its Atlantic pelagic longline fleet. Depending of the model used, total estimated U.S. seabird bycatch ranged from 26 to 122 seabirds in 2010.

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 1,865 billfishes (including swordfish) and 431 tunas in 2010. This represents a decrease of 20.2% for billfish and an increase of 17.8% for tunas from 2009 levels. Several electronic tagging studies involving bluefin tuna and billfish in the Atlantic Ocean and adjacent waters continued during 2010. These are discussed in the bluefin and billfish research sections above. There were 79 billfish recaptures from the CTC and TBF projects in 2010. This represents a decrease of 14.1% from 2009. These recaptures were 42 sailfish, 20 swordfish, 7 white marlin, and 10 blue marlin. A total of 25 tunas were recorded as recaptures in 2010, of which 12 were bluefin, and 13 were yellowfin tuna. This recapture level was an increase of 127.3% from the 2009 values. The ICCAT Enhanced Research Program for Billfish (IERPBF) in the western Atlantic Ocean has continued to assist in reporting tag recaptures to improve the quantity and quality of tag recapture reports, particularly from Venezuela, Barbados, and Grenada.

2.2.10 Fishery Observer Deployments

Domestic Pelagic Longline Observer Coverage

In accordance with ICCAT recommendations, randomized observer sampling of the U.S. large pelagic longline fleet was continued into 2010 (see Figure 2.5). 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 through 2010 ranged from 2.5% in 1992 to 12% in 2010. The targeted sampling fraction of the U.S. pelagic longline fleet was increased to 8% in 2002.

A total of 14,202 sets (10,406,246 hooks) were recorded by observer personnel from the Southeast Fisheries Science Center (SEFSC) and Northeast Fisheries Science Center (NEFSC) programs from May of 1992 to December of 2010. During that period, observers recorded over 472,938 fish (primarily swordfish, tunas, and sharks), in addition to marine mammals, turtles, and seabirds. Document SCRS/04/168 provided a more detailed summary of the data resulting from observer sampling between 1992 and 2002. Similar to 2007, 2008, and 2009, from March 11th through June 11th, 2010, the pelagic longline 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 376 longline sets were observed (264,009 hooks) from 30 vessels, which accounted for approximately 57.8 % of the observed trips during that period.

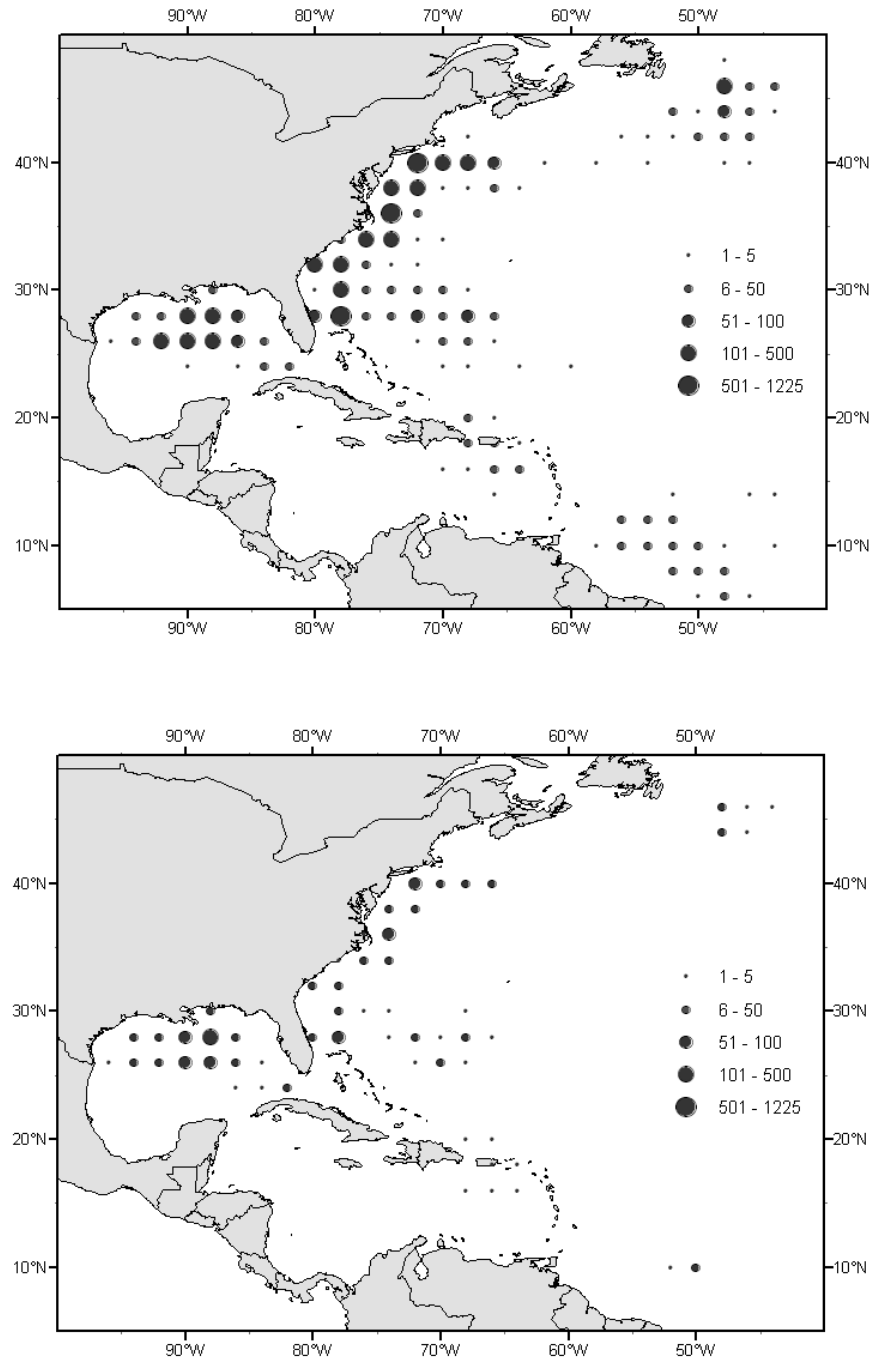


Figure 2.5 – Position of longline sets as reported in pelagic logbooks (upper panel) and observed by the U.S. pelagic observer program (lower panel) in 2010 summarized by 2°x2° squares.

Shark Bottom Longline Observer Coverage

The shark bottom longline fishery is active 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 214 U.S. fishermen are permitted to target sharks (excluding dogfish) in the Atlantic Ocean and Gulf of Mexico, and an additional 285 fishermen are permitted to land shark incidentally. Recent amendments to the Consolidated Atlantic Highly Migratory Species Fishery Management Plan based on updated stock assessments have eliminated the major directed shark fishery in the U.S. Atlantic. The amendments implement a shark research fishery, which allows the U.S. National Marine Fisheries Service (NMFS) to select a limited number of commercial shark vessels on an annual basis to carry observers 100% of trips to collect life history data, and data for future stock assessments. Furthermore, the revised measures set new quotas, reduced retention limits, and modified the list of authorized species in commercial shark fisheries. Specifically, commercial shark fishermen not participating in the limited research fishery are no longer allowed to land sandbar sharks, which have been the main target species for most fishermen. Additionally, commercial fishermen in the Atlantic Ocean, Gulf of Mexico, and Caribbean Sea are required to maintain shark fins naturally attached to the shark carcass through landing. The revised measures also affect authorized species in recreational shark fisheries; modify time/area closures for commercial shark vessels deploying bottom longline gear; and modify regions, seasons, and shark dealer reporting frequency in the commercial shark fishery. Observations of the shark-directed bottom longline fishery in the Atlantic Ocean and Gulf of Mexico have been conducted since 1994. From January to December 2010, a total of 161 hauls on 105 trips were observed. Sharks comprised 96.4% of the catch, followed by teleosts (2.1%), invertebrates (0.7%), and batoids (0.6%). Large coastal shark species comprised 82.8% of the shark catch, small coastal shark species comprised 13.9%, and deep water sharks comprised 0.1%. Prohibited shark species were also caught and released including the dusky shark, the Caribbean reef shark, *Carcharhinus perezi*, the sand tiger shark, *Carcharias taurus*, and the great white shark, *Carcharodon carcharias* (3.2% of shark catch).

Part II (Management Implementation)

SECTION 3. U.S. IMPLEMENTATION OF ICCAT CONSERVATION AND MANAGEMENT MEASURES

3.1 Catch Limits and Minimum Sizes

3.1.1 Rebuilding Program for West Atlantic Bluefin Tuna (08-04, 10-03)

Recommendation 08-04 revised the annual WBFT quota for the United States to 1,034.92 mt for 2009 and 977.44 mt for 2010, including 25 mt to account for bycatch related to directed longline fisheries in the vicinity of the management area boundary. Consistent with *Rec. 08-04*, the United States implemented the recommended 2010 quota as well as a 2009-2010 two-year balancing period for limiting the harvest of BFT measuring less than 115 cm (45 inches) to 10 percent (by weight) of the U.S. quota. *Rec. 08-04* maintained the limit from *Rec. 06-06* on the amount of underharvest that could be carried forward to the next year, (i.e., not to exceed 50 percent of a Contracting Party's current initial Total Allowable Catch) for 2010. Since 2008, the U.S. BFT fishery has been managed on a calendar year basis. The United States reports dead discard estimates to ICCAT annually and, for 2010, accounted for this mortality as part of the 2010 quota specification calculation process. However, when the United States set the annual quota specifications delineating quotas and subquotas for the fishery at the beginning of 2010, it used a proxy for dead discards as complete prior year dead discard information was not yet available. For example, the 2008 dead discard estimate of 172.8 mt was used as a proxy in setting the 2010 quota specifications. After accounting for dead discards by using this proxy, and applying the underharvest from the 2009 fishing year (1 January 2009 through 31 December 2009) to the 2010 fishing year (1 January 2010 through 31 December 2010), the resulting adjusted 2010 fishing year quota was 1,193.2 mt. The adjusted quotas presented in the U.S. compliance tables reflect updated landings for 2009 and 2010, as well as updated dead discard amounts for those years rather than the proxies discussed above.

Recommendation 10-03 revised the annual WBFT quota for the United States to 948.70 annually for 2011 and 2012, including 25 mt to account for bycatch related to directed longline fisheries in the vicinity of the management area boundary. Consistent with *Rec. 10-03*, the United States implemented the recommended 2011 quota as well as a 2011-2012 two-year balancing period for limiting the harvest of BFT measuring less than 115 cm (45 inches) to 10 percent (by weight) of the U.S. quota via a final rule that published 5 July 2011 (76 FR 39019). The United States also implemented the reduction in the amount of underharvest that may be carried forward to 2011 (i.e., not to exceed 10 percent of a Contracting Party's initial quota allocation). Taking a different approach in setting the 2011 adjusted quota than used the prior four years, the United States accounted for *half* of the estimated dead discards *up front* using the 2010 estimate (122 mt) as a proxy, and applied the underharvest from the 2010 fishing year (1 January 2010 through 31 December 2010) to the 2011 fishing year (1 January 2011 through 31 December 2011), resulting in an adjusted 2011 quota of 982.4 mt. Total 2011 landings and dead discards will be accounted for and reported to ICCAT in 2012. Consistent with *Rec. 10-03*, the United States began submitting provisional reports of monthly catches of BFT to the Secretariat in June 2011.

Consistent with *Rec. 08-04*, the United States prohibits directed fishing for BFT in the Gulf of Mexico. Additionally, effective in May 2011, the United States now requires the use of "weak hooks" by pelagic longline vessels fishing in the Gulf of Mexico to reduce bycatch of spawning BFT. A weak hook is a circle hook that meets current U.S. hook size and offset restrictions for the Gulf of Mexico pelagic longline fishery, but is constructed of round wire stock that is thinner-gauge than the circle hooks currently used and is no larger than 3.65 mm in diameter. Weak hooks can allow incidentally hooked BFT to escape capture because the hooks are more likely to straighten when a large fish is hooked. The purpose of the action is to reduce pelagic longline catch of BFT in the Gulf of Mexico, consistent with the 2010 SCRS advice that ICCAT may wish to protect the strong 2003 year class until it reaches maturity and can contribute to spawning.

3.1.2 Multi-annual Recovery Plan for Bluefin Tuna in the Eastern Atlantic and Mediterranean(07-05; 08-05; 09-06; 10-04)

As discussed in Section 3.3, the United States has implemented the Bluefin Tuna Catch Documentation Program (*Rec. 07-10*), as amended in 2008 (*Rec. 08-12*) and 2009 (*Rec. 09-11*) to monitor all bluefin tuna imports, including

those from the Eastern Atlantic and Mediterranean.

3.1.3 Resolution by ICCAT on Fishing Bluefin Tuna in the Atlantic Ocean (06-08)

Resolution 06-08 requests CPCs to refrain from increasing effort by large-scale tuna longline vessels from the 1999/2000 level in the area north of 10 degrees North latitude and between 35 degrees and 45 degrees West longitude. Consistent with *Res. 06-08*, the United States has reduced effort by large scale tuna longline vessels in the vicinity of the 45-degree West boundary line for Eastern and Western BFT since 1999/2000 through implementation of a limited access program and fishing gear restrictions.

3.1.4 Recommendation to Further Strengthen the Plan to Rebuild Blue Marlin and White Marlin Populations (06-09, 10-05)

Phase I of the ICCAT rebuilding plan for Atlantic blue and white marlins requires countries to reduce, by 2010, commercial landings of Atlantic white marlin captured in pelagic longline and purse seine fisheries by 67 percent and reduce blue marlin landings by 50 percent from 1996 or 1999 landings (whichever is greater). The United States has prohibited all commercial retention of billfish since 1988. For its part of the rebuilding program, the United States maintains regulations that prohibit all landings of blue and white marlins by any method other than rod and reel, and provides 10% scientific observer coverage of billfish tournament landings through 2010. The United States currently meets or exceeds these observer requirements. The United States also agreed to limit annual landings by U.S. recreational fishermen to 250 Atlantic blue and white marlins, combined, as first recommended by ICCAT Rec. 00-13. Catch and release rates in the U.S. recreational fishery for Atlantic blue and white marlin are estimated to be very high (90 – 99%) based on tournament data, and minimum sizes have been established at 168 cm (66 inches) for white marlin and 251 cm (99 inches) for blue marlin.

The regulation that codified the U.S. 250 marlin limit established procedures to remain within the limit; prohibited the retention of billfish on all commercial vessels; and established a permit condition requiring that recreational vessels possessing an HMS permit abide by Federal regulations regardless of where fishing, unless a state has more restrictive regulations. In addition, since 1 January 2008, all anglers participating in Atlantic billfish tournaments have been required to use only non-offset circle hooks when deploying natural baits or natural bait/artificial lure combinations. These management measures are expected to further limit marlin mortality.

All registered Atlantic billfish tournaments are selected to report landings and effort information to the National Marine Fisheries Service. The United States implemented a mandatory reporting program for billfish landed by recreational anglers who are not participating in registered tournaments in March 2003. The United States continues to refine estimation and data collection methodologies for rod and reel catches and landings of marlins. Preliminary 2010 calendar year data from all data sources indicate landings of 28 blue marlin and 72 white marlin from recreational fishing activities. In addition, 19 roundscale spearfish were landed. Please refer to Appendix 3: U.S. Compliance Tables for final aggregate U.S. landings.

3.1.5 Recommendation to Establish a Rebuilding Program for North Atlantic Swordfish (10-02)

Recommendation 10-02 established a catch limit of 3,907 mt ww for the United States for 2011, and included a provision allowing the United States to catch up to 200 mt of its North Atlantic swordfish quota between 5 degrees North latitude and 5 degrees South latitude, and a provision to transfer 25 mt to Canada. The recommendation also limited carryover of unused quota to 50 percent of the baseline quota and provided for a one-time transfer within a fishing year of up to 15% of the TAC allocation to other CPCs with TAC allocations. NMFS published a final rule on 12 September 2011 (76 FR 56120) that fully implements this recommendation. Recommendation 10-02 further specified that each CPC shall submit to the ICCAT Secretariat in 2011, a report on the CPC's history of swordfish fishing and a development/management plan of its swordfish fishery. The United States submitted its report on September 15, 2011, as required under Recommendation 10-02. Consideration of the multi-year conservation and management plans in 2011 shall be based upon those reports and development/management plans as well as the ICCAT Criteria for the Allocation of Fishing Possibilities [Rec. 01-25]. The United States has a required minimum size of 47" (119 cm) lower jaw fork length (LJFL) or 29" (73 cm) cleithrum to caudal keel length, which was designed to correspond to the 119-cm LJFL minimum size limit, with zero tolerance.

3.1.6 Recommendation on South Atlantic Swordfish (06-03, 09-03)

Recommendation 06-03 established catch allocations for the United States of 100 mt each year for the period 2007 – 2009, inclusive, and allowed up to 100 mt ww of underharvest to be carried forward by the United States each of these years. Recommendation 09-03 extended the provisions of Recommendation 06-03 through 2012. Per Recommendation 09-03, in 2010, the United States transferred 100 mt of U.S. quota to other CPCs. Under this recommendation, 50 mt was transferred to Namibia, 25 mt to Cote d' Ivoire, and 25 mt to Belize from the available South Atlantic swordfish quota.

3.1.7 Recommendation on the Southern Albacore Catch Limits (07-03)

The United States was subject to a catch limit of 100 mt in 2010. The United States did not prosecute a directed fishery for southern albacore in 2010.

3.1.8 Recommendation on North Atlantic Albacore Catch Limits (98-08; 06-04; 07-02; 09-05)

Under Recommendation 09-05, the annual U.S. landings quota was 527 mt for 2010 and for 2011. The recommendation provided that overages/underages of annual catch limits should be deducted from, or added to, specific future catch limits, and *Rec. 09-05* limited carryover of underage to 25 percent of a CPC's initial catch quota. Please refer to Appendix 3: U.S. Compliance Tables for final aggregate U.S. landings.

In addition, pursuant to ICCAT's recommendation concerning the limitation of fishing capacity on North Atlantic albacore (*Rec. 98-08*), the United States submits the required reports providing a list of U.S. vessels operating in the fishery on an annual basis and implemented limited entry in its pelagic longline fishery in 1999. The 2011 submission indicated that there were 216 vessels authorized to harvest North Atlantic albacore in the Convention area.

3.1.9 Recommendation by ICCAT on Bigeye Tuna Conservation Measures for Fishing Vessels Larger than 24m Length Overall (98-3)

The operative paragraphs of Recommendation 98-3, paragraphs 1 and 2, do not apply to the United States per paragraph 3, as the annual average catch of BET by the United States was below 2,000 mt for the prescribed 5 year period.

3.1.10 Recommendation on Bigeye Tuna Conservation Measures (04-01; 08-01; 09-01; 10-01)

No catch limits apply to the United States since 1999 catch was less than 2,100 mt. To provide additional protection to the bigeye tuna stock, particularly the juvenile component, the United States has implemented a minimum size for this stock (which exceeds that formerly required by ICCAT of 3.2 kg). This minimum size of 27 inches (approximately 6.8 kg) applies to all U.S. fisheries landing bigeye tuna, both commercial and recreational.

3.1.11 Recommendation on Yellowfin Size Limit (72-01; 05-01)

In 2005, ICCAT repealed the minimum size limit of 3.2 kg that had been in place since 1972. The United States maintains a minimum size limit of 27 inches fork length (approximately 6.8 kg) in both recreational and commercial fisheries for yellowfin tuna.

3.1.12 Recommendation by ICCAT on Supplemental Regulatory Measures for the Management of Atlantic Yellowfin Tuna (93-04)

The United States has implemented a number of regulatory measures that ensure consistency with *Recommendation 93-04*, which prohibits increases in effective fishing effort for Atlantic yellowfin tuna over 1992 observed levels. The United States implemented a limited access program for pelagic longline vessels in 1999, which has resulted in a decrease in the number of vessels commercially permitted to fish for Atlantic tunas by approximately 70 percent from the early 1990s. The United States also implemented a retention limit of three fish per angler per trip in the recreational and charter/headboat fisheries in 1999. In 2000 and 2001, the United States closed three large areas to

pelagic longline fishing in the U.S. Atlantic EEZ (including the Gulf of Mexico), which had demonstrable effects on yellowfin tuna effort and catches. In 2004, the United States also implemented circle hook requirements in the pelagic longline fishery in which yellowfin tuna are caught, which contributes to reducing post-release mortality of incidentally caught yellowfin tunas, and, as noted above, the United States has maintained a minimum size for retaining yellowfin tuna despite the repeal of a minimum size by ICCAT.

3.1.13 Resolution on Atlantic Sharks (03-10)

Resolution 03-10 requested ICCAT parties and cooperating parties to provide the SCRS bycatch committee with information on shark catches, effort by gear type, and landings and trade of shark products, and called for the full implementation of National Plans of Action (NPOAs) by ICCAT parties and cooperating parties, in accordance with the Food and Agriculture Organization's (FAO) International Plan of Action (IPOA) for the Conservation and Management of Sharks. The U.S. National Plan of Action for the Conservation and Management of Sharks was adopted in February 2001, consistent with the International Plan of Action for Sharks. The United States has provided Task I and Task II data to support stock assessments for shortfin mako, porbeagle and blue sharks.

3.1.14 Recommendations on Atlantic Sharks (04-10; 05-05; 06-10; 07-06; 09-07; 10-6; 10-7; 10-8)

The original 2004 Recommendation established a timeline for review of the shortfin mako population assessment and development of recommendations for management alternatives (2005), as well as reassessment of blue sharks and shortfin mako (2007) by SCRS. Following the 2005 assessment, Recommendation 04-10 was amended via Recommendation 05-05 to include additional requirements for CPCs to implement and report on measures taken to reduce fishing mortality of North Atlantic shortfin mako sharks caught in association with fisheries managed by ICCAT. The United States establishes and tracks annual quotas for pelagic sharks, which include landings of shortfin mako sharks, to ensure that catches of these species are within the United States' domestically-designated quota. Tracking of the pelagic shark quota in recent years indicates that pelagic sharks, including shortfin mako sharks, do not constitute a significant portion of U.S. shark landings. In accordance with domestic requirements, the United States has catch limits in place for Atlantic porbeagle, shortfin mako, and blue sharks and will continue to submit catch and effort data for sharks to ICCAT.

Recommendation 04-10 also included reporting requirements for shark catches, including available historical data on catches; full utilization of shark catches; a requirement that CPCs prevent their vessels from having shark fins onboard that total more than 5% of the weight of sharks; a requirement that the ratio of fin-to-body weight of sharks be reviewed by the SCRS by 2005; and prohibitions on fishing vessels retaining, transshipping or landing any fins harvested in contravention to the Recommendation. In addition, the Recommendation encourages the release of live sharks, especially juveniles in fisheries not directed at sharks, as well as additional research to improve the selectivity of fishing gears and identify shark nursery areas. The United States continues to fulfill the requirements of these recommendations through research and data collection programs and a variety of fishing restrictions. The United States was already in conformance with the finning prohibition in Rec. 04-10 through provisions of the Shark Finning Prohibition Act of 2000, which prohibited the practice of finning and the possession or landing of shark fins without the corresponding carcass (67 FR 6194, 11 February 2002).

In 2008, NMFS published Amendment 2 to the Consolidated Atlantic Highly Migratory Species (HMS) Fishery Management Plan (FMP) that, among other things, required sharks landed in the Atlantic Ocean, including the Gulf of Mexico and Caribbean Sea, to be landed with their fins naturally attached. (The U.S. Shark Conservation Act of 2010 includes a *nationwide* requirement for most sharks (including all pelagic sharks) to be landed with fins and tails naturally attached). Amendment 2 also established a shark research fishery, which requires 100% observer coverage and collects specific fishery-dependent information on sharks and shark fisheries such as gear selectivity and size class information. The United States enforces a minimum size limit and bag limits for recreationally caught sharks, commercial trip limits, and commercial quotas, and has established a time/area closure for shark bottom longline fishing in the mid-Atlantic to protect sharks in the nursery grounds.

Recommendation 07-06 requires CPCs to take action toward the conservation of porbeagle sharks and North Atlantic shortfin mako sharks and to contribute data and research to future stock assessments of the species. U.S. scientists participated in the 2008 assessments for shortfin mako and blue sharks and the 2009 porbeagle shark assessment. Consistent with Recommendation 07-06, the United States significantly reduced the porbeagle shark

quota in 2008 in Amendment 2 to the 2006 Consolidated Atlantic HMS FMP from 91 metric tons to 1.7 metric tons and implemented a rebuilding plan for this species. The United States is actively involved in pelagic shark research and continues to submit Task I and Task II data for sharks to ICCAT on an annual basis.

Recommendation 08-07 requires that all nations release bigeye thresher sharks unharmed and report all data on incidental catches. The United States has prohibited the harvest of bigeye thresher sharks in commercial and recreational fisheries since 1999. Since 2006, bottom longline and gillnet fishermen fishing for sharks have been required to attend workshops to learn how to release sea turtles, other protected species, and prohibited shark species in a manner that maximizes survival. NMFS published a final rule on 7 February 2007 (72 FR 5633), that requires participants in the Atlantic shark bottom longline fishery to possess, maintain, and utilize handling and release equipment for the release of sea turtles, other protected species, and prohibited shark species. Recommendation 09-07 prohibits retention of bigeye thresher sharks, as well as requires CPCs to submit Task I and II data for all thresher sharks and where possible, requires implementation of research projects to determine nursery areas for these species. As mentioned above, the United States has prohibited the retention of bigeye thresher sharks since 1999 and continues to submit Task I and Task II data for sharks as well as actively engaging in pelagic shark research.

In 2010, three recommendations were adopted requiring CPCs to take action toward the conservation of Atlantic sharks. Recommendation 10-06 required CPCs to include information in their 2012 Annual Reports on actions taken to implement Recommendations 04-10, 05-05, and 07-06, and the steps taken to improve their Task I and Task II data collection for direct and incidental catches. As noted above, the United States has implemented regulations to fully comply with Recommendations 04-10, 05-05, and 07-06 and will include additional information, as necessary, in the 2012 Annual Report. In addition to Recommendation 10-06, Recommendations 10-07 and 10-8 prohibit retaining, transshipping, landing, storing, or selling hammerhead sharks in the family Sphyrnidae (except for *Sphyrna tiburo*) and oceanic whitetip sharks (*Carcharhinus longimanus*) caught in association with ICCAT fisheries. Additionally, discard and release data for these species must be reported to ICCAT. NMFS published a final rule on 29 August 2011 (76 FR 53652) that fully implements the requirements of Rec. 10-07 and 10-08.

3.2 Closed Seasons

3.2.1 Domestic Time/Area Closures for ICCAT Species

The United States takes an ecosystem approach to management of HMS fisheries. As such, the United States implements a number of measures that go beyond the measures required in ICCAT recommendations.

Closures Affecting ICCAT-Managed Fisheries. At present, the Atlantic pelagic longline fishery of the United States typically targeting ICCAT-managed species, such as swordfish and bigeye, albacore, skipjack and yellowfin tunas, is subject to several discrete time/area closures. These closures are designed to reduce all bycatch (*e.g.*, undersized swordfish, billfish, *etc.*) in the pelagic longline fishery by prohibiting pelagic longline fishing for ICCAT-managed species in those areas during specified times. These closures affect offshore fishing areas up to 200 nautical miles (nm) from shore (see Figure 3.2.1). Those closures are as follows: (1) Florida East Coast: 50,720 nm²/year-round; (2) Charleston Bump: 49,090 nm² from February through April each year; (3) DeSoto Canyon: 32,860 nm²/year-round; and (4) the Northeastern United States: 21,600 nm² during the month of June each year. The Northeast Distant Statistical Sampling Area (NED) (2,631,000 nm²), which had been closed year-round (per regulations at 50 CFR part 223 and 635) from 2001 through mid-2004, has been reclassified as a gear restricted area.

NMFS issued Exempted Fishing Permits to three pelagic longline vessels to conduct research in portions of the Charleston Bump and Florida East Coast Closed Areas from 2008 to September 2010. This research, which was carried out with academic partners, should allow NMFS to determine the relative effectiveness of the pelagic longline closed areas under current fishery conditions and provide data which could help NMFS make determinations about whether modifications to the existing closed areas are warranted.

To reduce sea turtle mortality, pelagic longline vessels may only fish for HMS in the NED if they observe strict circle hook and bait restrictions and use approved sea turtle release gear in accordance with release and handling protocols. Outside of the NED, in order to reduce sea turtle mortality, the U.S. HMS pelagic longline fishery is required to use circle hooks with certain bait combinations, depending on the region, as well as the required,

approved sea turtle release gear and release and handling protocols. If selected, pelagic longline vessels must carry observers when fishing in or outside of the NED.

Effective 18 June 2009, in order to conduct research to minimize marine mammal interactions, there is also a Cape Hatteras Special Research Area (CHSRA) that is located in the mid-Atlantic Bight, which requires vessels fishing with pelagic longline gear to carry observers, when needed. Additionally, since June 2009 U.S. pelagic longline vessels must limit the length of the longline mainline to 20 nautical miles in length to reduce serious injuries and mortalities of both pilot whales and Risso's dolphins in the Mid-Atlantic Bight. Observers may conduct additional scientific investigations while on board pelagic longline vessels fishing in the CHSRA designed to support the goals of the pelagic longline take reduction plan (PLTRP).

Closures Affecting Non-ICCAT-Managed Fisheries: In addition, all HMS gear types are prohibited year-round, except for surface trolling from May through October, in the Madison Swanson and Steamboat Lumps Marine Reserves (Figure 3.2.1). Both of these reserves are located shoreward of the Desoto Canyon Closed Area; the Madison-Swanson Marine Reserve is 115 nm² in size, and the Steamboat Lumps marine reserve is 104 nm² in size. The Edges 40 Fathom Contour is a 390 nm² gag spawning region located between the Madison-Swanson and Steamboat Lumps closure area, within the Gulf of Mexico. This area is closed to fishing for any Gulf of Mexico Fishery Management Council-managed species and all HMS fishing from 1 January through 30 April of each year to provide additional protection for spawning gag grouper.

Effective 1 January 2005, the United States implemented a mid-Atlantic shark closed area for bottom longline gear from January through July of each year to protect dusky shark and juvenile sandbar sharks in pupping and nursery areas. Additionally, on 7 February 2007, NMFS published a final rule (72 FR 5633) that complements regulations that the Caribbean Fishery Management Council (CFMC) implemented on 28 October 2005 (70 FR 62073), that closed six small distinct areas off of Puerto Rico and the U.S. Virgin Islands to bottom longline gear, year-round. The purpose of these closed areas is to protect essential fish habitat of reef-dwelling species. These areas are defined in Title 50, section 622.33(a) of the U.S. Code of Federal Regulations.

NMFS published a final rule on 7 February 2007 (72 FR 5633), that requires participants in the Atlantic shark bottom longline fishery to possess, maintain, and utilize the same equipment and follow the same protocols for the safe handling and release of sea turtles and other protected species as required in the pelagic longline fishery. Additionally, on 23 September 2008 (73 FR 54721), NMFS published a final rule that requires U.S. HMS pelagic longline and bottom longline vessels to possess an additional sea turtle control device as of 1 January 2009.

Finally, NMFS published a final rule on 24 June 2008 (73 FR 35778; correction published on 15 July 2008, 73 FR 40658), to complement regulations implemented by the South Atlantic Fishery Management Council (SAFMC). The SAFMC published a final rule on 13 January 2009 (74 FR 1621), that implemented eight Type II Marine Protected Areas (MPAs) from North Carolina to the Florida Keys. Type II MPAs are closures throughout the year to most gear types except some fishing, such as trolling for HMS and other coastal pelagic species. NMFS backstopped these closures because of enforcement issues; many shark and snapper grouper fishermen possess the same permits, and the gear is indistinguishable between the two fisheries. Therefore, NMFS has closed the eight MPAs to shark bottom longline gear.

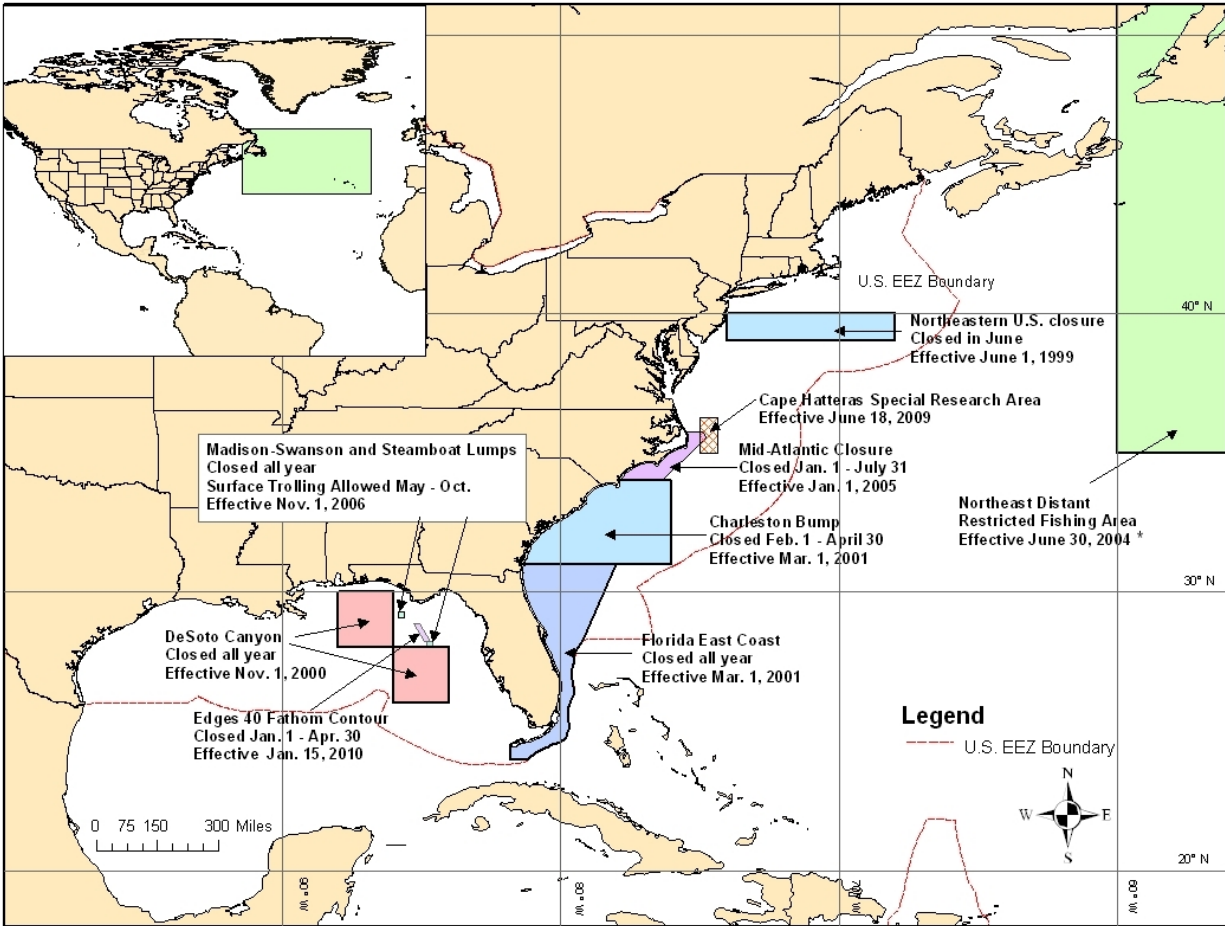


Figure 3.2.1 Selected existing U.S. time/area closures in HMS fisheries. Inset shows extent of the Northeast Distant restricted fishing area. The Mid-Atlantic Closure is applicable to bottom longline gear only. Note: the Northeast Distant (NED) was a closed area to all vessels as of 2001. It became the 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 (CHSRA) requires vessels fishing with pelagic longline gear to carry observers, when needed, and limit longline mainline to 20 nautical miles in length. The Caribbean bottom longline closures and South Atlantic MPAs closed to bottom longline gear are not included.

3.3 Trade and Compliance Related Measures

3.3.1 Trade Restrictive Recommendations (02-17; 03-18)

No new trade restrictive measures were adopted by the Commission at the 2010 annual meeting. The trade restrictive measures that are currently in effect prohibit the importation of bigeye tuna from Bolivia (02-17) and Georgia (03-18). These measures have been implemented by the United States.

3.3.2 Recommendation Concerning Trade Measures (06-13)

Recommendation 06-13 directs CPCs that import products of tuna and tuna-like species to collect relevant import, landings, or associated data on such products in order to allow for submission of that information to the ICCAT Secretariat. The United States collects information through a combination of programs, including the bluefin tuna catch documentation program, bigeye and swordfish statistical document programs, and through domestic Customs programs, and relevant information is provided to the Commission.

3.3.3 Bluefin Tuna Catch Documentation Program (09-11)

On 2 June 2008 (73 CFR 31380), the United States published final regulations effective 2 July 2008, implementing the ICCAT bluefin tuna catch documentation program per Recommendation 07-10. This program repealed the pre-existing statistical document program and now tracks bluefin tuna landings and international trade using a bluefin tuna catch document. In June 2009, the U.S. program was updated to comply with the program changes implemented by Recommendation 08-12 and the U.S. program is consistent with Recommendation 09-11, which replaced Recommendation 08-12 in 2009.

The U.S. program continues to require that bluefin tuna be fitted with a tail tag upon sale to a domestic dealer, and the tag (or tag number in the case of a cut carcass) must remain with the fish, thus tracking bluefin tuna from domestic harvest to international markets. The 2010 annual bluefin tuna catch documentation report was submitted to ICCAT before the 1 October 2010, deadline and covered the time period from 1 July 2009, through 30 June 2010. The United States continues to work towards implementation of an electronic reporting system for imports covered by RFMO consignment document programs.

3.3.4 Swordfish and Bigeye Tuna Statistical Document Programs (00-22, 01-21, 01-22, 03-19)

ICCAT's Statistical document programs for swordfish and frozen bigeye tuna have been implemented by the United States. As required under the statistical document programs, the United States submits reports to ICCAT twice yearly, providing information on import, export and re-export activity involving these species products. Statistical document reports for swordfish and bigeye tuna were submitted to the ICCAT Secretariat in April 2011 for the period covering July 2010 through December 2010, and before the 1 October 1 2010, deadline for the first half of the 2011 calendar year.

3.4 Observer Programs and Related Activities

3.4.1 Minimum standards for fishing vessel scientific observer programs.

Recommendation 10-10 establishes minimum standards for fishing vessel scientific observer programs. The U.S. observer program currently meets two main objectives: monitoring of interactions between fishing gear and protected species (marine mammals, sea turtles, and sea birds), and monitoring of fishing effort and catch (estimation of total landings of target species and/or bycatch of non-target or prohibited species). An overview of observer programs in the United States can be found online at <http://www.st.nmfs.noaa.gov/st4/nop/index.html>. During calendar year 2010, the United States achieved 14.2 percent observer coverage expressed as a proportion of reported sets and 13.9 percent as a proportion of reported hooks in the Atlantic pelagic longline fishery for highly migratory species. Click on the pelagic longline link on the map on the National Observer Program web page at <http://www.st.nmfs.noaa.gov/st4/nop/index.html> for information regarding the different observer programs.

The United States is coordinating with the Chilean government and the Instituto de Fomento Pesquero (Institute for Fisheries Development) to host the 7th International Fisheries Observer and Monitoring Conference to be held in April 2013 in Vina del Mar, Chile. The previous conference was held in Portland, Maine in July 2009 and sponsored the participation of a number of attendees from developing nations. A continuation of the conference series that started in 1998, this event is an important opportunity to improve fishery monitoring programs worldwide through sharing of practices and is a valuable forum for dialog between those responsible for monitoring fisheries and those who rely upon the data they collect. For additional information on U.S. capacity building activities, see Appendix 6: Capacity Building Assistance to ICCAT Countries.

3.5 Vessel Monitoring

3.5.1 Recommendation by ICCAT Concerning Minimum Standards for the Establishment of a Vessel Monitoring System in the ICCAT Convention Area (03-14, 04-11, 07-08)

The United States has implemented a fleet-wide VMS requirement in the Atlantic pelagic longline fishery (25 June 2003, 68 FR 37772). This rule requires all vessels away from port with pelagic longline gear onboard to operate their VMS units. In addition to what is required by these recommendations, the United States also requires VMS operation for vessels with bottom longline gear onboard between 33°00' N. latitude and 36°30' N. latitude or near the mid-Atlantic shark closed area and for shark gillnet vessels operating during the right whale calving season (24 December 2003, 68 FR 74746). Recommendation 07-08 applies to vessels fishing for bluefin tuna in the eastern Atlantic Ocean and Mediterranean Sea and is not applicable to the United States.

3.6 Measures to Ensure Effectiveness of ICCAT Conservation and Management Measures and to Prohibit Illegal, Unreported and Unregulated Fishing

3.6.1 Management Standard for the Large-Scale Tuna Longline Fishery (01-20)

In 2001, ICCAT resolved that minimum management standards should be established for issuance of fishing licenses to tuna longline vessels greater than 24 meters in overall length and that an annual report should be submitted to ICCAT using a specific format. The U.S. submission is provided via ICCAT form: COMP-017-LSTLV, and is attached as Appendix 2.

3.6.2 Recommendation by ICCAT Concerning the Duties of Contracting Parties and Cooperating Non-Contracting Parties, Entities, Fishing Entities in relation to their vessels in the ICCAT Convention Area (03-12)

The United States is implementing this measure through various means (e.g., licensing requirements, monitoring control, and surveillance measures, maintaining up-to-date records of U.S. vessels authorized to fish species managed by ICCAT in the Convention area, etc.) as described throughout this annual report.

3.6.3 Recommendation Further Amending the Recommendation by ICCAT to Establish a List of Vessels Presumed to Have Carried Out Illegal, Unreported, and Unregulated Fishing Activities in the ICCAT Convention Area (09-10), Recommendation by ICCAT to Adopt Additional Measures Against Illegal, Unreported and Unregulated (IUU) Fishing (03-16) and Resolution by ICCAT Further Defining the Scope of IUU Fishing (01-18)

The United States has laws and regulations that serve to prohibit the import of tuna and tuna-like species from vessels included in the IUU vessel list or which are not on the ICCAT positive vessel list (*50 CFR Part 635.41*). The United States has developed regulations to clarify domestic implementation of other aspects of this recommendation including restriction of entry into port and access to port services for vessels on the ICCAT IUU vessel list. Such vessels may also be prohibited from engaging in commercial transactions, if allowed entry into port. The actions taken against listed IUU vessels will be in accordance with the relevant conservation and management measure and in consultation with other U.S. agencies.

IUU fishing is the focus of growing attention in the United States, due to its adverse impacts on target fish stocks, habitat, fish markets, bycatch, and competition with legal fishing. The United States has taken action to implement Resolution 01-18, which calls upon CPCs to take every possible action, consistent with relevant laws, to instruct importers, transporters, and others in the fishing industry to refrain from engaging in transaction and transshipment of tunas and tuna-like species caught by fishing vessels that have been engaged in IUU fishing activity. The U.S. fishing industry has been further advised that, in addition to potentially violating U.S. law, doing business with a vessel identified on a RFMO's IUU list may include restricted port access or unloading prohibitions imposed at the intended destination.

Recommendation 03-16 requires CPCs to take the necessary measures to prohibit landings, placement in cages for farming, and/or transshipment of tunas or tuna-like species that were caught by fishing vessels engaged in IUU fishing activity consistent with their rights and obligations under international law. U.S. vessels do not participate in Atlantic bluefin tuna farming operations, and the United States prohibits at sea transshipment.

3.6.4 Recommendation by ICCAT to Promote Compliance By Nationals of Contracting Parties, Cooperating Non-Contacting Parties, Entities, or Fishing Entities with ICCAT Conservation and Management Measures (06-14)

This recommendation requires CPCs to take appropriate measures in accordance with their applicable laws and regulations to investigate and respond to allegations and verifiable incidents of IUU fishing activities by their nationals, cooperate with the relevant agencies of other CPCs, and to report to ICCAT on actions and measures taken in accordance with the recommendation, effective July 2008. The United States complies with the requirements of this recommendation by pursuing reports of illegal fishing activities by its citizens. A report of enforcement related activities pertaining to ICCAT species, which includes any IUU related enforcement actions, can be found in Appendix 4, NOAA Enforcement Actions Taken on ICCAT Species.

3.7 Other Recommendations

3.7.1 Recommendation by ICCAT on Vessel Chartering (02-21)

A final rule was published on 6 December 2004 (69 FR 70396), to implement recommendation 02-21 concerning vessel chartering. The United States collects all relevant information for monitoring before issuing the permits necessary to allow chartering to be undertaken and will continue to report any chartering activities to ICCAT. Since the adoption of recommendation 02-21, the United States has issued only one chartering permit (in late 2004), which authorized chartering activities to take place in the ICCAT Convention area during 2005.

3.7.2 Recommendation by ICCAT Concerning the Recording of Catch by Fishing Vessels in the ICCAT Convention Area (03-13)

The United States requires vessels issued commercial Atlantic tunas, shark, or swordfish permits, as well as charter and headboat vessels fishing for Atlantic highly migratory species, to maintain and submit logbooks upon selection for reporting by the U.S. Government regardless of vessel length. This includes, for example, 100 percent of Atlantic pelagic longline vessels fishing for Atlantic tunas, shark, or swordfish, regardless of vessel length. For information on the implementation of this recommendation relative to recreational fishing vessels, see section 3.7.3 below.

3.7.3 Resolution on Improving Recreational Fishery Statistics (99-07)

Recreational landings are estimated through a combination of tournament surveys (the Recreational Billfish Survey), the Large Pelagics Survey (LPS), the Marine Recreational Fishing Statistics Survey (MRFSS), mandatory non-tournament landings reporting requirements for Atlantic blue and white marlins, sailfish, swordfish, and bluefin tuna, as well as state landings data. Final regulations adopted in 1999 require selected HMS charter/headboat vessels that do not already complete a logbook to do so. Registration of all recreational fishing tournaments for Atlantic highly migratory species has been required since 1999. All tournaments for Atlantic highly migratory species are required to submit landing reports, if selected for reporting. Longstanding U.S. policy is to select 100 percent of billfish tournaments for reporting. All non-tournament landings of Atlantic billfish and swordfish are required to be reported to the National Marine Fisheries Service within 24 hours of landing. In the fall of 2007, the United States enhanced recreational reporting by implementing a new internet based non-tournament reporting system for Atlantic billfish, including swordfish. The United States is in the process of improving on the current MRFSS system through the Marine Recreational Information Program (MRIP). MRIP is an improved national system of regional surveys that will replace existing marine recreational fishing data collection programs and provide better regional monitoring of recreational fishing participation, effort, catches, landings and releases of finfish species.

The United States has established a national registry of saltwater anglers, including those fishing for ICCAT-managed species, which will include names and contact information among other information. The registry is intended to improve foundational information concerning recreational fishery participation, which will support improvements in the overall monitoring recreational fisheries. Information about the registry can be found at: www.countryfish.noaa.gov.

3.7.4 Recommendation by ICCAT Concerning the Establishment of an ICCAT Record of Vessels 20 meters in Length Overall or Greater Authorized to Operate in the Convention Area (09-08)

The United States submitted the list of vessels required, pursuant to this recommendation, to ICCAT in June 2010. At that time, there were 427 U.S. vessels that met the appropriate criteria. Additional information is available in Appendix 5 - Report on Internal Actions Taken to Ensure That Tuna Vessels on the ICCAT Record of Vessels over 20 Meters Are Fishing in Accordance with ICCAT Management and Conservation Measures

3.7.5 Recommendation by ICCAT on the Bycatch of Sea Turtles in ICCAT Fisheries (10-09)

In 2004 (6 July 2004; 63 FR 40734), the United States codified regulations to reduce sea turtle bycatch in Atlantic pelagic longline fisheries for highly migratory species. These measures pertain to the entire U.S. Atlantic pelagic longline fishery, and include: mandatory bait specifications, use of circle hooks (size of hook depending on fishing locale), and the mandatory possession and use of sea turtle handling and release gear on board all vessels with pelagic longline gear. The United States continues to modify the suite of disentanglement and release gears required to be onboard longline vessels as new gears and information on best practices are developed. Beginning in 2010, the United States reported sea turtle interactions in the U.S. pelagic longline fleet to ICCAT.

3.7.6 Recommendation by ICCAT Establishing a Program for Transshipment by Large-Scale Longline Fishing Vessels (06-11)

This recommendation establishes a program of transshipment affecting tuna longline and carrier vessels, including the establishment of an ICCAT record of authorized carrier vessels, documentation requirements, and extensive obligations and procedures pertaining to transshipment to assist in combating IUU fishing, ensure adequate monitoring of transshipment activities, and collecting catch data from large-scale vessels. U.S. regulations prohibit transshipment of highly migratory species products in the Convention area.

3.7.7 Recommendation by ICCAT for a Revised Port Inspection Scheme (97-10)

The United States generally prohibits foreign fishing vessels from landing in U.S. ports, fish or fish products harvested or taken onboard on the high seas, with a few exceptions, including for landings in some Pacific U.S. territories. Under U.S. domestic law, all fishing vessels, including those carrying fish species subject to regulations pursuant to a recommendation of ICCAT, and their catch, gear, fishing logbooks and manifests are subject to inspection. See Section 4 below for additional information.

3.7.8 Recommendation by ICCAT on Compliance with Statistical Reporting Obligations (05-09)

Recommendation 05-09 requires Contracting parties and CPCs to provide explanations regarding reporting deficiencies and data gaps along with plans for corrective action. Following the 2010 ICCAT Annual meeting, the United States received a letter of concern from ICCAT which indicated a deficiency in the U.S. submission of catch and effort data for sharks. This year, the United States corrected this deficiency and submitted its catch and effort data for sharks with its other Task I and Task II data submissions consistent with SCRS requirements.

3.7.9 Recommendation by ICCAT on Bluefin Tuna Farming (06-07)

Atlantic bluefin tuna are not farmed in U.S. waters. The U.S. bluefin tuna catch documentation program applies to farmed as well as wild-caught product and catch documents are required for imports of all farmed product.

3.7.10 Electronic Statistical Document Program (06-16)

The United States continues to implement an electronic system for the collection and dissemination of international trade information. The International Trade Data System (ITDS) is a project required under U.S. domestic legislation and is aimed at improving the efficiency of import and export processes. ITDS will help U.S. government agencies monitor the origin and safety of imported products. Given the domestic requirement to collect information from the trade community (shippers, carriers, brokers, etc.) in an electronic format, the United States is taking steps to integrate ICCAT's statistical and catch document programs into the internet-based electronic data collection system.

NMFS has cataloged all of the information collection requirements and the respective data elements for the several seafood trade monitoring programs established either by U.S. domestic law or by the RFMOs to which the United States is a party. These data collection requirements have been reviewed by U.S. Customs and Border Protection and a set of data formats and coding instructions has been developed. Additionally, NMFS has worked with U.S. Customs on a document imaging system which will allow brokers to attach electronic images of the paper certificates to the entry filings. NMFS issued an Advance Notice of Proposed Rulemaking in May 2009 (www.regulations.gov <<http://www.regulations.gov>>) and continues to consult with U.S. importers and exporters from ICCAT parties to determine the most efficient means of collecting the required data in electronic format. More detailed information on the U.S. International Trade Data System can be found on the www.itds.gov <<http://www.itds.gov>> internet site.

3.7.11 Recommendation by ICCAT on Reducing Incidental Bycatch of Seabirds in Longline Fisheries (07-07)

The United States does not have any vessels actively participating in ICCAT-managed fisheries south of 20 degrees S. longitude. However, consistent with this recommendation, in 2010, the United States reported seabird interactions in the U.S. pelagic longline fleet to ICCAT.

3.7.12 Other resolutions and recommendations

The following were not addressed in this report as the United States does not participate in the relevant fishery or does not participate in specific activities covered by the measures or the measures required action by groups other ICCAT's measures:

- [09-13] Other: ICCAT Inspection Reports
- [09-12] Resolution by ICCAT for the Pilot Application of the Kobe 2 Decision Matrix
- [09-04] Recommendation by ICCAT for a Management Framework for the Sustainable Exploitation of Mediterranean Swordfish and Replacing ICCAT Recommendation 08-03
- [07-08] Recommendation by ICCAT Concerning Data Exchange Format and Protocol in Relation to the Vessel Monitoring System for the Bluefin Tuna Fishery in the ICCAT Convention Area
- [07-01] Recommendation by ICCAT on Mediterranean Swordfish
- [03-04] Recommendation by ICCAT Relating to Mediterranean Swordfish
- [99-03] Recommendation on the Establishment of a Closed Area/Season for the Use of Fish-Aggregation Devices

Section 4. Inspection Scheme and Activities

U.S. Atlantic enforcement for ICCAT species is undertaken by the NOAA Office of Law Enforcement (OLE), the U.S. Coast Guard, and, pursuant to cooperative enforcement agreements, by States and territories with maritime boundaries in the Atlantic Ocean, Gulf of Mexico, and/or Caribbean Sea. Enforcement activities include monitoring and inspecting offloads at landing facilities and marinas in conjunction with dealer record checks and at-sea boarding and inspection.

A summary of NOAA enforcement actions taken in ICCAT fisheries is provided in Appendix 4. The U.S. Coast Guard also enforces HMS fishery regulations. From 1 October 2010 to 15 September 2011, the Coast Guard boarded 262 vessels resulting in two significant violations. As enforcement of regulations for tuna and tuna-like species is just one of many vital component missions that the Coast Guard undertakes in the course of fisheries enforcement and of other duties, for every actionable incident documented, Coast Guard personnel have logged hundreds of hours monitoring for a range of violations. From 1 October 2010 to 15 September 2011, the total Coast Guard Atlantic Ocean and Gulf of Mexico fisheries enforcement focused effort involved 2,276 aircraft patrol hours, 7,190 boat patrol hours, and 54,195 cutter (large vessel) patrol hours.

In addition to ICCAT's requirements, the United States supported the development of the FAO Agreement on Port State Measures to Prevent, Deter and Eliminate IUU fishing (the Agreement) and, upon its adoption in November 2009, was one of the first to sign it. Since that time, we have been engaged in the development of implementing

legislation and expect the Agreement and draft implementing legislation to be transmitted to Congress this fall. U.S. ratification of the Port State Measures Agreement will complement existing regulations that restrict port entry and access to port services to vessels included on the IUU lists of ICCAT and other RFMOs of which the United States is a party.

Section 5. Other Activities

Recent U.S. management action for Atlantic highly migratory species can be found online at:
<http://www.nmfs.noaa.gov/sfa/hms>.

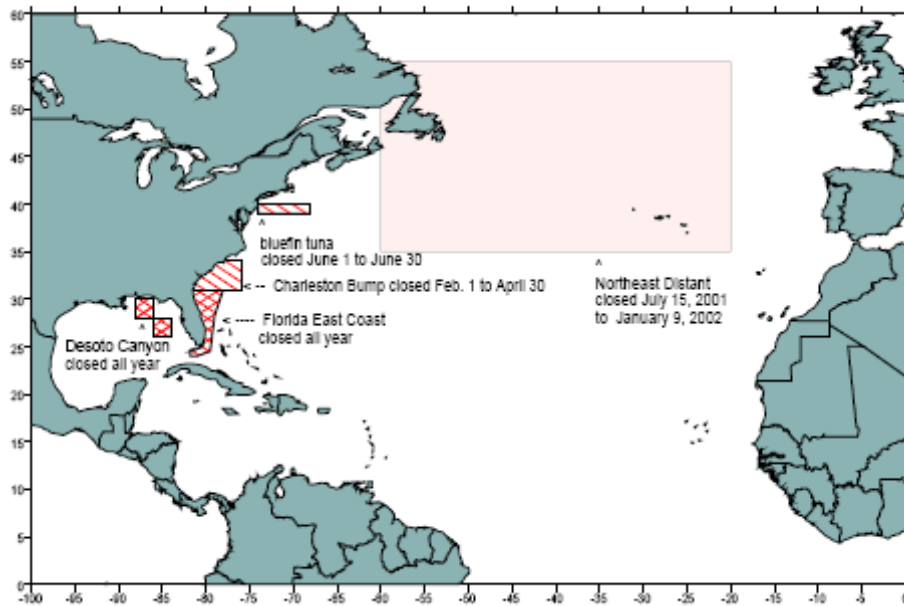
Federal register notices containing the full text of proposed and final regulations can be found at:
<http://www.gpoaccess.gov/fr/index.html>.

Appendix 6: Capacity Building Assistance to ICCAT Countries (2008-2011)

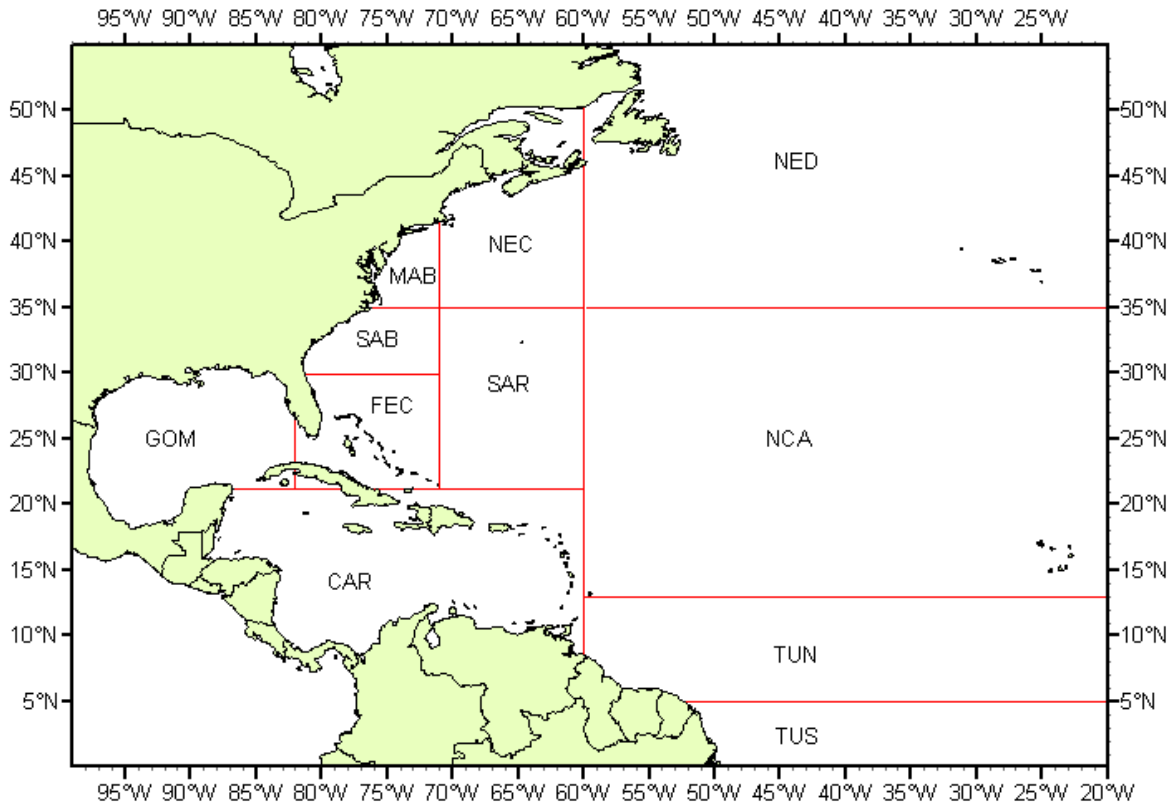
Appendix 1
Effects of time/area closures on the U.S. swordfish fishery

Beginning in the year 2001, U.S. pelagic longline fishing was prohibited or restricted in the five areas shown in *Appendix Figure 1.1*. The three southern areas, (Charleston Bump, Florida East Coast, and Desoto Canyon), were selected, at least in part, to reduce the catch of swordfish < 125 cm and other bycatch. The bluefin tuna area was closed primarily to reduce the catch of bluefin smaller than legal size for sale by U.S. fishers. Longline vessels were allowed to fish in the closed Northeast Distant area only if they participated in a circle hook fishing experiment aimed to investigate the performance of circle hooks with respect to sea turtle bycatch and if they carried a scientific observer. In 2002 and 2003, the Northeast Distant area remained closed year round to all longline vessels (except those participating in the turtle study) and it was reopened to the entire fleet in 2004.

The number of longline vessels in the U.S. fishery targeting swordfish declined steadily from the mid 1990's, reached the lowest numbers in 2006, and showed an increase in 2007 and 2008, and a slight decrease in 2009; while in 2010 the number of active vessels was the same as in 2009. Reported effort (hooks) declined initially, remained fairly stable through 2001 and furthered declined to the lowest reported number in 2006 (*Appendix Table 1.1*). But, the number of hooks fished increased steadily from 2007 through 2009. Year 2010 showed a decreased in the number of hooks fished most probably associated to the oil spill event in the Gulf of Mexico. The percentage effort in hooks and swordfish discarded dead in numbers (reported) and in metric tons (estimated) in 2008, 2009, and 2010 are compared to the average effort and numbers/estimates from 1997 through 1999 (*Appendix Table 1.2*). There was some overall reduction in effort, reported in hooks fished. Some of the effort previously reported from the Florida East Coast fishing area appears to have redistributed into the Gulf of Mexico and up to the south Atlantic and Mid Atlantic Bights (See *Appendix Figure 1.2* for domestic areas). The years 2008, 2009, and 2010 and the average (1997-1999) swordfish discarded dead in numbers (reported) and in metric tons (estimated) and effort in hooks are reported by area and time/area status in *Appendix Table 1.3*.



Appendix Figure 1.1- Time/area closures for the U.S. longline fishery in 2010. Note that the Northeast Distant area is currently open for longline fishing only.



Appendix Figure 1.2- US domestic fishing areas: Caribbean (CAR), Florida East coast (FEC), Gulf of Mexico (GOM), Mid Atlantic Bight (MAB), Northeast Central (NEC), Northeast Distant (NED), South Atlantic Bight (SAB), Sargasso Sea (SAR), North Central Atlantic (NCA), Tuna North (TUN), and Tuna South (TUS).

Appendix Table 1.1. Number of Active US Pelagic Longline Vessels. "Vessels" indicates the number of vessels that submitted at least one positive fishing report during that year, "Vessels that caught SWO" corresponds to the number of vessel that reported catching at least one swordfish during that year and "Vessels that caught SWO in 5 month period" indicates the number of vessels that reported catching at least one swordfish per month in at least five months of that year. "Hooks Reported" includes all submitted logbooks single pelagic longline sets and summary records.

Year	Vessels	Vessels that caught SWO	Vessels that caught SWO in 5 month period	Hooks reported
1989	456	415	251	7,927,401
1990	419	363	209	7,500,095
1991	342	308	176	7,754,127
1992	340	304	184	9,076,717
1993	435	306	177	9,735,806
1994	501	306	176	10,351,805
1995	489	314	198	11,270,539
1996	367	275	194	10,944,660
1997	352	265	167	10,213,780
1998	288	233	139	8,120,273
1999	226	200	143	7,996,685
2000	206	185	135	8,158,390
2001	185	168	114	7,897,037
2002	149	140	107	7,107,958
2003	123	119	94	6,862,091
2004	117	114	96	7,345,048
2005	112	108	79	5,973,150
2006	103	102	77	5,522,236
2007	119	117	90	6,312,406
2008	122	122	89	6,273,257
2009	116	114	88	6,772,732
2010	116	115	63	5,501,126

Appendix Table 1.2. Numbers (reported) and metric tons (estimated) of swordfish discarded dead, and reported number of hooks in years 2008-2010 by pelagic longline vessels expressed as percentage of the mean values from years 1997-1999 by area Caribbean (CAR), Florida East coast (FEC), Gulf of Mexico (GOM), Mid Atlantic Bight (MAB), Northeast Central (NEC), Northeast Distant (NED), and South Atlantic Bight (SAB).

	Number of SWO				Number of Hooks				Metric tons			
	Mean	2008	2009	2010	Mean	2008	2009	2010	Mean	2008	2009	2010
CAR	433	18%	4%	14%	235,268	36%	14%	32%	12	7%	2%	12%
FEC	2,488	10%	12%	14%	607,495	88%	107%	154%	108	15%	8%	26%
GOM	1,806	110%	87%	38%	2,822,528	69%	93%	35%	64	60%	36%	13%
MAB	1,195	74%	54%	37%	990,152	135%	111%	113%	44	52%	49%	104%
NEC	767	89%	40%	29%	754,283	69%	60%	83%	21	165%	71%	30%
NED	972	26%	16%	91%	496,306	49%	53%	57%	35	15%	23%	5%
SAB	2,394	72%	30%	31%	585,496	118%	139%	159%	127	44%	23%	34%

Appendix Table 1.3. Numbers (reported) and metric tons (estimated) of swordfish discarded dead, and number of hooks reported by pelagic longline vessels in year 2008-2010 and the average for years 1997-1999 by area Caribbean (CAR), Florida East coast (FEC), Gulf of Mexico (GOM), Mid Atlantic Bight (MAB), Northeast Central (NEC), Northeast Distant (NED), and South Atlantic Bight (SAB) and status of time/area closure.

		Number of SWO				Number of Hooks				Metric tons				Change in mt.		
		Mean	2008	2009	2010	Mean	2008	2009	2010	Mean	2008	2009	2010	2008	2009	
CAR	Open	433	78	16	60	235,268	84,970	32,513	75,380	7	1.0	0.2	0.8	-6	-7	-6
FEC	Closed	2,362	154	213	199	465,346	319,775	386,354	448,887	38	2.4	3.1	2.9	-35	-35	-35
FEC	Open	126	100	96	151	142,149	214,918	275,377	501,483	2	1.6	1.4	2.2	0	-1	0
GOM	Closed	1,019	7	0	0	234,433	5,510	4,850	0	12	0.1	0.0	0.0	-12	-12	-12
GOM	Open	787	1,981	1,578	523	2,588,096	1,954,414	2,653,569	911,400	9	25.3	19.3	6.7	16	10	-3
MAB	Open	1,194	891	650	453	985,985	1,340,225	1,113,277	1,138,507	18	13.4	11.2	5.7	-5	-7	-13
NEC	Closed	0				41,600	0	0	800	0	0.0	0.0	0.0	0	0	0
NEC	Open	760	685	304	223	726,550	520,802	441,567	610,829	12	10.4	5.2	2.8	-1	-6	-9
NED	Open	972	254	154	890	496,306	242,885	261,703	282,298	15	3.3	2.9	12.5	-12	-12	-2
SAB	Closed	935	50	50	12	214,186	16,422	26,885	8,859	16	0.8	0.9	0.2	-15	-15	-16
SAB	Open	1,459	1,679	669	739	371,310	677,191	808,525	948,514	25	25.0	11.5	11.1	0	-13	-14

APPENDIX 2

ANNUAL REPORTING OF IMPLEMENTATION OF THE ICCAT MANAGEMENT STANDARD FOR LARGE-SCALE TUNA LONGLINE VESSELS

REPORTING FLAG: United States	YEAR: 2011
REPORTING AGENCY: National Marine Fisheries Service	PERSON IN CHARGE: Brad McHale
ADDRESS: 55 Great Republic Dr., Gloucester, MA, USA	TEL: 001.978.281.9139 FAX: 001.978.281.9340 EMAIL:brad.mchale@noaa.gov

a Management in the fishing grounds

	<i>Surveillance & at-sea inspection by patrol boats</i>	<i>Scientific Observer boarding</i>	<i>Satellite-based vessel monitoring system by management areas</i>	<i>Tags to differentiate catches by management areas</i>	<i>Real time catch report</i>	<i>Entry/Exit report</i>
Yes, No	YES	YES	YES	YES	No	YES
Note	8,020 hours by boats (<65 feet) 48,150 hours by cutters (>65 feet) 58,672 total vessel patrol hours **Note: These hours are specifically directed toward the U.S. Coast Guard's Living Marine Resource mission sets which includes domestic and foreign (IUU and EEZ) enforcement efforts	14% (of sets)	100% of pelagic longline vessels fishing for Atlantic highly migratory species	Bluefin Tuna		Vessel Logbook Program
Total number of patrol days at fishing grounds	2,445 patrol days in support of domestic & foreign fisheries enforcement within U.S. Atlantic and Gulf of Mexico EEZ					

b Management of transshipment (from the fishing grounds to the landing ports)

	<i>Transshipment report</i>	<i>Port inspection</i>	<i>Statistical document program</i>
Yes, No	NO	YES	YES
Note	Transshipment Prohibited	Port inspection program not directly relevant to transshipment activities as transshipment is prohibited.	Bluefin Tuna Catch Document Bigeye Tuna--frozen Swordfish

c. Management at landing ports

	<i>Landing inspection</i>	<i>Landing reporting</i>	<i>Cooperation with other Parties</i>
Yes, No	YES	YES	Yes
Note	Inspection programs for both enforcement and biological sampling/statistics purposes.	Vessel Logbook Dealer Reporting Program	

APPENDIX 3: U.S. Compliance Tables

FORM: CP13-COC_Sec

FORM: CP13-COC_Sec		USA																			
NORTHERN ALBACORE		Initial quota /catch limit					Current catches				Balance				Adjusted quota/ catch limit						
YEAR	2007	2008	2009	2010	2011	2007	2008	2009	2010	2007	2008	2009	2010	2007	2008	2009	2010	2011	2012		
	607.00	538.00	538.00	527.00	527.00	532.10	248.10	188.79	328.7	378.80	593.40	483.70	330.10	910.50	672.50	672.50	658.80	658.80			
SOUTHERN ALBACORE		Initial quota /catch limit					Ref. years	Current catches				Balance				Adjusted quota (only in case of overharvest, except Belize)					
YEAR	2007	2008	2009	2010	2011	Avg 1992-96; 1998-2002	2007	2008	2009	2010	2007	2008	2009	2010	2007	2008	2009	2010	2011	2012	
	100.00	100.00	100.00	100.00	100.00	0.20	0.00	0.00	0.00	0.002	100.00	100.00	100.00	100.0	n.a	n.a	n.a	n.a	n.a.		
NORTHERN SWORDFISH		Initial quota					Current catches				Balance				Adjusted quota/ catch limit						
YEAR	2007	2008	2009	2010	2011	2007	2008	2009	2010	2007	2008	2009	2010	2007	2008	2009	2010	2011	2012		
	3907.00	3907.00	3907.00	3907.00	3907.00	2682.80	2530.30	2878.03	2845.2	3194.50	3330.20	2982.47	3015.3	5860.50	5860.50	5860.50	5860.50	5860.5			
Discards																					
SOUTHERN SWORDFISH		Initial quota					Current catches				Balance				Adjusted quota						
YEAR	2007	2008	2009	2010	2011	2007	2008	2009	2010	2007	2008	2009	2010	2007	2008	2009	2010	2011	2012		
	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.25	200.00	200.00	200.00	99.75	200.00	200.00	200.00	100.00	99.75			
BLUEFIN EAST		Initial quota /catch limit					Current catches				Balance				Adjusted quota						
YEAR	2007	2008	2009	2010	2011	2007	2008	2009	2010	2007	2008	2009	2010	2007	2008	2009	2010	2011			
BLUEFIN WEST		Initial quota /catch limit					Current catches				Balance				Adjusted quota/ catch limit						
YEAR	2007	2008	2009	2010	2011	2007	2008	2009	2010	2007	2008	2009	2010	2007	2008	2009	2010	2011	2012		
	1190.00	1190.10	1034.90	977.40	948.70	848.70	919.90	1228.60	925.3	936.20	865.30	323.80	375.9	1785.20	1785.20	1552.40	1301.20	1043.6			
Discards																					
BIGEYE		Initial quota					Reference years		Current catches				Balance				Adjusted quota/ catch limit				
YEAR	2007	2008	2009	2010	2011	Average (91-92)	1999 (SCRS 2000)	2007	2008	2009	2010	2007	2008	2009	2010	2007	2008	2009	2010	2011	2012
						893.50	1261.00	527.30	488.50	515.20	673.4										
WHITE MARLIN		Initial landing limits					Reference years		Current landings				Balance								
YEAR	2007	2008	2009	2010	2011	1996 (PS+LL)	1999 (PS+LL)	2007 LL+PS	2008 LL+PS	2009 LL+PS	2010 LL+PS	2007 LL+PS	2008 LL+PS	2009 LL+PS	2010 LL+PS	2007 LL+PS	2008 LL+PS	2009 LL+PS	2010 LL+PS		
	250.00	250.00	250.00	250.00	250.00			98.00	117.00	97.00	100	152.00	133.00	153.00	150						
BLUE MARLIN		Initial landing limits					Reference years		Current landings				Balance								
YEAR	2007	2008	2009	2010	2011	1996 (PS+LL)	1999 (PS+LL)	2007 LL+PS	2008 LL+PS	2009 LL+PS	2010 LL+PS	2007 LL+PS	2008 LL+PS	2009 LL+PS	2010 LL+PS	2007 LL+PS	2008 LL+PS	2009 LL+PS	2010 LL+PS		
	250.00	250.00	250.00	250.00	250.00			98.00	117.00	97.00	100	152.00	133.00	153.00	150						

USA-N-SWO: Catches from 2007 to 2010 include discards.

USA-S-SWO: Catches include landings and dead discards.

USA-W-BFT: catches include landings and dead discards.

USA-WHM-BUM: in numbers of fish landed, white marlin and blue marlin combined; in 2010, in addition, 19 roundscale spearfish were landed.

REPORTING FORM FOR COMPLIANCE - SIZE LIMITS									
PARTY/ENTITY/FISHING ENTITY:		USA							
Year: 2010									
Please indicate in the shaded cells below the percentage of undersized fish in the total catch of each species									
Species	SWO		BFT						
	AT.N	AT.S	AT.E	AT.E	AT.E	Medi	Adriatic	Medi	AT.W
Recommendation Number	06-02		08-05 For BB, TROL; <17 m	08-05 For BB, TROL; >17 m	08-05 All other gears	08-05 Coastal artisanal fisheries	08-05 Catches taken for farming purposes	08-05. All other gears	08-04 all gears
Min. weight (kg)	25 or 15		6.4	8	30	8	8	30	30
Min. size (cm)	125 or 119		--	--	--		--	--	115
Tolerance (% of total)	15% 125 cm - 0% 119		Up to 7% of quota with max. of 100t	0%	Max. 5% between 10-30 kg	No more than 2% of quota for fresh fish	No more than 90% of quota	5% tolerance between 10-30kg of landing	Average over 2009 and 2010 not more than 10%
PERCENTAGE (%) OF TOTAL CATCH UNDER MINIMUM SIZE	0.8	0							3.2
In the event that harvest of any ICCAT stock exceeds specified minimum size tolerance adopted by the Commission, explain to the Compliance Committee:									
a) The magnitude of the over-harvest,									
b) Domestic measures implemented to avoid further over-harvest,									
c) Monitoring of compliance with domestic measures and,									
d) Any other actions to be taken to prevent further over-harvest.									

FORM FOR THE APPLICATION OF OVERAGES/UNDERAGES

Flag:	USA
Stock:	NALB

Units: t

Year		2010	2011		
Limit		527	527		
Adjusted limit (A)		658.8	658.8		
Formula *					
Catch (B)		328.7			
Balance (A-B)		330.1			
Adjustment year**		2011			
Describe the rationale used in the application of overage / underage:					
* Adjusted limit = initial limit + available balance (not to exceed 25% of initial quota)					
Adjusted limit for 2010 = 527 + (.25) (527)					
Adjusted limit for 2011 = 527 + (.25) (527)					

* Enter the formula used to calculate the adjusted limit (A).

**Enter the year used to adjust the balance (A)-(B).

FORM FOR THE APPLICATION OF OVERAGES/UNDERAGES

Flag: USA
Stock: WBFT

Units: t

Year		2010	2011		
Limit		977.4	948.7		
Adjusted limit (A)		1301.2	1043.6		
Formula *					
Catch (B)		925.3			
Balance (A-B)		375.9			
Adjustment year**		2011			

Describe the rationale used in the application of overage / underage:

- * Adjusted limit for 2010 = initial limit + available balance (not to exceed 50% of initial quota)
- * Adjusted limit for 2011 = initial limit + available balance (not to exceed 10% of initial quota)

Adjusted limit for 2010 = $977.4 + 323.8$
 Adjusted limit for 2011 = $948.7 + (.1)(948.7)$

(2009 underage was < 50% of initial quota)

- * Enter the formula used to calculate the adjusted limit (A).
- **Enter the year used to adjust the balance (A)-(B).

FORM FOR THE APPLICATION OF OVERAGES/UNDERAGES

Flag:	USA
Stock:	BET

Units: t

Year	2010	2011
Limit	N/A	N/A
Adjusted limit (A)		
Formula *		
Catch (B)	673.4	
Balance (A-B)		
Adjustment year**		

Describe the rationale used in the application of overage / underage:

Reference year catches are < 2000 mt, so catch limits do not apply.

* Enter the formula used to calculate the adjusted limit (A).

**Enter the year used to adjust the balance (A)-(B).

FORM FOR THE APPLICATION OF OVERAGES/UNDERAGES

Flag:	USA
Stock:	NSWO

Units: t

Year	2009	2010	2011
Limit	3907	3907	3907
Adjusted limit (A)	5860.5	5860.5	5860.5
Formula *			
Catch (B)	2878.03	2845.2	
Balance (A-B)	2982.47	3015.3	
Adjustment year**	2010	2011	

Describe the rationale used in the application of overage / underage:

* Adjusted limit = initial limit + available balance (not to exceed 50% of initial quota)

Adjusted limit for 2010 = 3907 + (.5) (3907)

Adjusted limit for 2011 = 3907 + (.5) (3907)

* Enter the formula used to calculate the adjusted limit (A).

**Enter the year used to adjust the balance (A)-(B).

FORM FOR THE APPLICATION OF OVERAGES/UNDERAGES				
Flag:	USA			
Stock:	SSWO			
				Units: t
Year		2009	2010	2011
Limit		100	100	100
Adjusted limit (A)		200	100	99.75
Formula *				
Catch (B)		0	0.25	
Balance (A-B)		200	99.75	
Adjustment year**		2010	2011	
Describe the rationale used in the application of overage / underage:				
* Adjusted limit for 2010 = initial limit for 2010 + underage from 2009				
2010 balance was 200mt; only 100 mt of this underage may be carried forward under Rec. 06-03. This 100mt was transferred to Namibia (50mt), Belize (25mt) and Cote D'Ivoire (25mt) in the adjustment year (2010), under Rec 09-03.				
* Enter the formula used to calculate the adjusted limit (A).				
**Enter the year used to adjust the balance (A)-(B).				

FORM FOR THE APPLICATION OF OVERAGES/UNDERAGES

Flag:	USA
Stock:	WHM/BUM

			Units: t
Year	2009	2010	
Limit	250 fish	250 fish	
Adjusted limit (A)	N/A	N/A	
Formula *			
Catch (B)	97 fish	100 fish***	
Balance (A-B)	153 fish	150 fish	
Adjustment year**			
Describe the rationale used in the application of overage / underage:			
Annual landings limit for the United States is 250 fish (BUM and WHM combined).			

* Enter the formula used to calculate the adjusted limit (A).

**Enter the year used to adjust the balance (A)-(B).

***In numbers of fish landed, white marlin and blue marlin combined; in 2010, in addition, 19 roundscale spearfish were landed.

**APPENDIX 4
NOAA ENFORCEMENT ACTIONS TAKEN ON ICCAT SPECIES**

September 1, 2010 – August 31, 2011

During this reporting period, enforcement efforts consisted of dockside monitoring of offloads at major landing facilities in conjunction with dealer record checks, as well as at-sea boardings and visits to a limited number of concerned recreational marinas. Enforcement officials detected the following violations:

ENFORCEMENT ACTIONS	#
CASES OPENED THIS REPORTING PERIOD	48
REMAINING OPEN	34
CASES COMPLETED WITH WARNINGS ISSUED	14

VIOLATION

CASE NUMBER

General Requirements of the Atlantic Tunas Convention Act (ATCA) and Magnuson-Stevens Act (MSFCMA)

3

General Prohibitions under the ATCA and MSFCMA to include:

Fishing, catching, possessing, retaining Atlantic Highly Migratory Species without a valid permit

11

Purchase, receive, or transfer for commercial purposes Atlantic HMS landed by unpermitted vessel owners

1

Fail to possess a vessel permit on board or upon transfer of HMS to a dealer, or a dealer permit

1

Falsify or fail to report or maintain required information pursuant to a display, research, or chartering permit

7

Fail to comply with the requirements for at-sea observer coverage

5

Assaulting, interfering, or obstructing any authorized officer in the conduct of any search, inspection, seizure or investigation

1

Fail to install, activate, or replace a vessel monitoring system prior to leaving port with longline or gillnet gear onboard.

2

Utilizing secondary rears to capture or attempt to capture any undersized or free swimming Atlantic HMS, or failing to release a captured Atlantic HMS

1

Failure to maintain an Atlantic HMS in the form specified

1

Fish for, catch, retain, or possess and Atlantic HMS that is less than its minimum size limit	2
Fail to comply with the restrictions on use of pelagic longline, bottom longline, gillnet, buoy gear, spear gun gear, or green-stick gear	1
Land, transship, transport, purchase, sell, import or export any fish regulated pursuant to ICCAT, harvested contrary to the regulations of another country	1
Assault, interfere with, obstruct, delay or prevent NMFS personnel or anyone officially collecting information on behalf of NMFS	2

Specific Prohibitions for Atlantic Tunas:

Fish for, catch, retain, or possess a BFT less than the large medium size class without a valid HMS Angling or Charter/Headboat permit	1
--	---

Specific Prohibitions for Sharks:

Exceed a recreational retention limit for shark	1
Exceed a commercial retention limit for shark	1
Failure to maintain a shark in its proper form	6

This completes the NOAA Fisheries, Office for Law Enforcement, Report of ICCAT-Related Actions.

APPENDIX 5

FORM: COMP-010-INT-24

Report on Internal Actions Taken to Ensure That Tuna Vessels on the ICCAT Record of Vessels over 20 Metres Are Fishing in Accordance with ICCAT Management and Conservation Measures

Please mark with an X the box(es) which apply to your party, entity or fishing entity. Additional information may be included in the "Comments" column

	Required	Optional	Not required	Comments
1. Conditions under which authorization to fish is issued include:				
compliance with, or ability to comply with, applicable ICCAT Conservation and Management Measures	X			
<i>Such measures include:</i>				
vessel monitoring systems	X			Inclusive of all pelagic longline vessels fishing for Atlantic highly migratory species regardless of size
conditions for reporting time series of catch and effort by vessel	X			NMFS selects 100% of commercial vessels utilizing commercial pelagic longline and bottom longline for Atlantic HMS. Logbooks capture catches in numbers of retained and discarded target species, weights, bycatch statistics by species, effort statistics appropriate to gear type by set, as well as temporal and spatial data. Additionally, mandatory observer coverage in certain portions of the fishery collect the above as well as additional information.
conditions for reporting total catch in number, nominal weight, or both, by species (both target and non-target) as is appropriate to each fishery period	X			See above
conditions for reporting discard statistics, including estimates where necessary	X			See above
conditions for reporting effort statistics appropriate to each fishing method	X			See above
conditions for reporting fishing location, date and time fished and other statistics on fishing operations	X			See above

reporting and other conditions for transshipping, where transshipping is permitted				Transshipment is prohibited by U.S. regulation.
observer coverage	X			Mandatory observer coverage requirements are triggered by gear type rather than vessel size. Pelagic and bottom longline and gillnet vessels fishing for Atlantic highly migratory species are selected to achieve a goal of at least 8% of sets. Elevated levels of observer coverage are imposed in certain times and locations.
maintenance of fishing and related log books	X			See above
Other measures (please specify)				
Compliance with other requirements:				
where appropriate, compliance with other aspects of fisheries arrangements applicable to the flag State, entity or fishing entity	X			
possession of navigational equipment to ensure compliance with boundaries and in relation to restricted areas		X		
marking of fishing vessels and fishing gear in accordance with internationally recognized standards	X			
the vessel has a unique, internationally recognized identification number, that enables it to be identified regardless of changes in registration or name over time		X		Applicants for HMS permits are requested to provide an IMO or hull number, however, this is not a prerequisite for obtaining an HMS permit. Often vessels provide a U.S. Coast Guard documentation number or a State registration number.
Other measures (please specify)				
2. LSFVs on the ICCAT record keep on board :				
valid certificates of vessel registration	X			
valid authorization to fish and/or transship	X			Transshipment is prohibited by U.S. regulation.
3. Authorization to fish includes:				
the vessel name	X			

the name of natural or legal person authorized to fish	X			Permits for Atlantic highly migratory species are issued to the vessel owner for a specific vessel, which authorizes all individuals on board to fish. Individuals other than the vessel owner named on the permit may fish onboard the vessel, so long as it is covered by a valid permit.
the areas, scope and duration of the authorization to fish	X			
the species and fishing gear authorized	X			
other applicable management measures (e.g., closed area/seasons, minimum sizes)	X			Including but not limited to minimum sizes, species prohibitions, closed areas/seasons, hook and bait restrictions, bycatch disentanglement and release equipment, training, and certification requirements, other bycatch minimization regulations, landing form restrictions, and a requirement to sell to only permitted dealers
4. Prevention of association with IUU fishing activities				
ensure that vessels have not previously been engaged in IUU fishing activities, or are no longer associated in any way with such activities is required	X			
owners must be citizens or legal entities of the flag state, entity or fishing entity issuing the authorization	X			Recreational permits may be obtained by non-U.S. citizens regardless of vessel size.
5. Transshipments				
all LSFVs involved in transshipment at sea have a prior authorization to transship issued by the CPC				Not applicable. U.S. regulations prohibit transshipment at sea.
<i>LSFVs must report to the national fisheries administration or other designated institution the following:</i>				
the date and location of all of their transshipments of fish at sea				Not applicable. U.S. regulations prohibit transshipment at sea.
the weight by species and catch area of the catch transshipped				Not applicable.
the name, registration, flag and other information related to the identification of the vessels involved in the transshipment				Not applicable.
the port of landing of the transshipped catch				Not applicable.

6 . Punitive and Sanction actions				
vessels which have not complied with the requirements above are subject to sanction by the flag CPC.	X			Multiple Federal and State agencies are authorized to enforce applicable regulations and levy penalties according to applicable U.S. statutes.

APPENDIX 6

SUMMARY OF RELEVANT U.S. CAPACITY BUILDING ACTIVITIES IN 2011

For the last few years, the United States has been undertaking capacity building efforts in a number of countries who have interests in ICCAT species to ensure fisheries are sustainable and to help combat illegal, unregulated, and unreported fishing--in particular by enhancing data collection and fisheries enforcement capabilities. Toward that end, the United States conducted or supported various observer and enforcement related trainings in both ICCAT member and non-member countries in 2011 (Liberia, Togo, Gabon, Sierra Leone) and conducted joint research with Turkey on use of an alternative gear as they eliminate the use of driftnets in their Mediterranean swordfish fishery. Below is a summary of each activity undertaken in 2011.

In support of our capacity building work in West Africa, the United States is working to enhance collaborations with intergovernmental organizations actively engaged on fisheries issues in the region, including the World Bank's West African Regional Fisheries Program (WARFP), and sub-regional intergovernmental fisheries bodies such as the 7 member Subregional Fisheries Commission (CSRP) for West Africa and the 6 member Fisheries Committee for the West Central Gulf of Guinea (FCWC). WARFP was a strong partner in the Liberia training described below. Moreover, a shark identification guide developed by CSRP was used in the Liberia fisheries observer training, and we expect to continue to use this important resource in future trainings.

Liberia

Liberia is not an ICCAT member, but they are an Atlantic coastal state and have an interest in the species under the purview of ICCAT. In March 2011 (March 21-24), U.S. trainers provided a four day fisheries management course in Monrovia, Liberia, in collaboration with the World Bank's WARFP to 55 newly hired fisheries observers and fish inspectors. The course included survey information, data collection and stock assessment concepts.

The United States returned Liberia from 16 May to 2 June 2011 to conduct a full scale observer training for 16 fisheries observers. This training was conducted in collaboration with Liberia's Bureau of National Fisheries (BNF) and the World Bank's WARFP. Observers were trained on a wide variety of topics, including species identification of fish (including sharks), marine mammals and sea turtles; data collection for target and bycatch species; vessel information; vessel sightings; and documenting compliance. Observers were also trained on matters relating to daily radio procedures and protocols, working on board vessels (including nautical terms and navigation), safety at sea, and working in and with different cultures, among other at sea survival matters. Further, a U.S. trainer returned to Liberia this fall to assist in developing observer debriefing procedures and to provide additional training on tuna longline data collection procedures in anticipation of vessels fishing for tuna in Liberia's waters. The United States is also working to develop a database to house the information collected by observers. The database should be completed the fall of 2011, and a U.S. instructor will travel to Liberia to assist with implementation and training. In addition to providing ongoing support and program management advice to Liberia, the United States has remained similarly engaged with other countries where we have previously provided observer training, namely, Ghana (2009) and Senegal (2010).

To support observer trainings in West Africa, the United States developed an observer manual for the region. The West African fisheries observer manual and forms developed for the trainings are available online at: http://www.st.nmfs.noaa.gov/st4/nop/West_African_Observer.html.

Sierra Leone

In March 2011, U.S. trainers provided a three day training (March 15-17, 2011) on Fisheries Management to ten students at the Murray Town, Sierra Leone Armed Forces Maritime Wing. Six students were from the Sierra Leone Navy and four students were from the Maritime Security office. Many of the students had no previous experience with fishing, many had not been out to sea and none of the students had attended college. Given the background of the participants, the course material focused more on monitoring, control, and surveillance (MCS), including enforcement, aspects and less on biology and data collection issues. The course included presentations on the status of global fisheries; international, national and regional governance; fish ecology; bycatch of protected and non-target species; bycatch reduction and gear technologies; and enforcement.

Togo, Ghana, and Benin

In February 2011, a one-week fisheries enforcement training was conducted by the U.S. hosted International Monitoring, Control, and Surveillance (IMCS) Network at the Togolese Naval Base in Lome, Togo. The course was attended by 20 participants and consisted of officers and non-commissioned officers from the Navies of Ghana, Benin, and Togo, as well as the Director and staff of the Ministry of Agriculture and Promotion of Fisheries of Togo. The training consisted of classroom-based lectures, practical application of MCS methodology, and an at-sea operational module. Students received three days of classroom theoretical lectures and two days of operational training on at sea boarding and inspection.

Gabon

In May 2011, an 11-day fisheries enforcement training was conducted by the IMCS Network staff in Libreville, Gabon. The course was similar to the Togo training, including being divided into two phases: theory and practice. The training focused on basic navigation, use of VHF radio and procedures, safety at sea, patrol planning and inspection procedures. In addition, planning is underway to conduct a fisheries observer training in Gabon in November 2011 that will be similar to the one conducted in Liberia in the summer of 2011.

Turkey

The United States recently funded a pilot project to test swordfish buoy gear in Turkey and evaluate its potential as an effective and economically viable alternative to driftnet gear. Buoy gear was developed in the United States over the last ten years to target large swordfish in the Florida Straits and serve as an alternative to pelagic longline (PLL) gear, which was banned in the area in 2001. Buoy gear is defined as a fishing gear consisting of one or more floatation devices supporting a single mainline to which no more than two hooks or gangions are attached. In the Florida Straits, buoy gear has proven to be very effective in targeting large swordfish with almost no bycatch of juvenile swordfish or other protected species (such as turtles).

The project's principal investigators spent three weeks in June 2011 working with Turkish fisheries scientists and local fishermen to test buoy gear in the eastern Mediterranean Sea. Some challenges associated with the project were that it was carried out outside of the typical Turkish swordfish fishing season (which is September in the eastern part of the Mediterranean), the overall status of the stock, and the oceanographic features of the area, which differ substantially from the east coast of Florida. Although the catches of the experimental buoy gear deployments were minimal, many of the local captains indicated an interest to learn more about the buoy gear technology for potential future use. The collaborative U.S.-Turkey swordfish buoy gear exchange project successfully fostered information and fisheries technology transfer at both the scientific and individual fisherman levels. The United States is working with Morocco's Ministry of Fisheries and Aquaculture to conduct a similar buoy gear experiment with that country in 2012.