

ANNUAL REPORT OF THE UNITED STATES OF AMERICA

U.S. Department of Commerce, NOAA Fisheries¹

SUMMARY

Total (preliminary) reported U.S. catch of tuna and swordfish, including dead discards, in 2009 was 9,605 mt, an increase of about 16 % from 8,304 mt in 2008. Estimated swordfish catch (including estimated dead discards) increased from 2,530 mt in 2008 to 2,838 mt in 2009, and provisional landings from the U.S. fishery for yellowfin slightly increased from 2,407 mt in 2008 to 2,802 mt in 2009. Catches of bluefin by U.S. vessels fishing in the northwest Atlantic totaled 1,226 mt in 2009, an increase of 307 mt compared to 2008. Provisional skipjack landings were 119 mt, an increase of 52 mt compared to 2008. Provisional bigeye landings were 516 mt, an increase of about 28 mt from 2008. Estimated albacore landings decreased from 2008 to 2009 by 60 mt to 188 mt. Tuna, billfish, and shark tagging efforts continued in 2008. The United States has a scientific observer program for its pelagic longline fleet that has been in place since 1992. Similar to 2007 and 2008, from 30 March through 12 June 2009, the pelagic longline observer program increased observer coverage of the longline fleet operating in the Gulf of Mexico in order to better monitor incidental landings of bluefin tuna in the Gulf of Mexico during the bluefin tuna spawning season. A total of 739 longline sets were observed (547,294 hooks) from 34 vessels which accounted for approximately 84% of the observed trips during that period. The United States continued efforts to implement and enforce all applicable conservation and management measures.

Part I (Information on fisheries, research, and statistics)

Section 1: Annual Fisheries Information

Total (preliminary) reported U.S. catch of tuna and swordfish, including dead discards, in 2009 was 9,605 mt, an increase of about 16 % from 8,304 mt in 2008. Estimated swordfish catch (including estimated dead discards) increased from 2,530 mt in 2008 to 2,838 mt in 2009, and provisional landings from the U.S. fishery for yellowfin slightly increased in 2009 to 2,802 mt from 2,407 mt in 2008. U.S. vessels fishing in the northwest Atlantic caught in 2009 an estimated 1,228 mt of bluefin, an increase of 307 mt compared to 2008. Provisional skipjack landings increased by 52 mt to 119 mt from 2008 to 2009, estimated bigeye landings slightly increased by about 28 mt compared to 2008 to an estimated 516 mt in 2009, and estimated albacore landings decreased from 2008 to 2009 by 60 mt to 188 mt.

Section 2: Research and Statistics

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 increased to 2,838 mt in 2009, from the 2008 landings estimate of 2,530 mt (Table 2.1-YFT). The 2009 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 & reel catches made by recreational anglers. A high proportion of the estimated landings were due to rod & reel catches of recreational anglers in the NW Atlantic (742 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 corresponded to the U.S. longline fleet operating in the Gulf of Mexico (1,147 mt). Nominal catch rate

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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 2005 to 2009						
Area	Gear	2005	2006	2007	2008	2009
NW Atlantic	Longline	394.2	701.7	757.8	460.5	416.4
	Gillnet	0.1	4.7	4.2	0.6	0.0
	Handline	105.1	105.1	113.2	30.1	58.7
	Trawl	0.2	0.7	2.4	0.0	0.0
	Troll	0.0	0.0	6.9	2.4	5.4
	Trap	0.01	0.0	0.0	0.05	0.1
	Rod and Reel*	3,504.8	4,649.2	2,726	657.1	742.6
	Unclassified	3.8	3.9	7.0	1.4	2.2
Gulf of Mexico	Longline	1,210.9	1,128.5	1,379.3	756.5	1,147
	Handline	45.5	49.9	26.2	11.2	21.6
	Rod and Reel*	146.9	258.4	227.6	366.3	264.7
	Unclassified	0.3	0.0	0.0	0.0	0.0
Caribbean	Longline	140.6	179.7	255.6	107.1	136.7
	Trap	0.001	0.4	0.0	0.0	0.0
	Gillnet	0.0003	0.0	0.0	0.04	0.04
	Handline	9.7	7.8	9.1	3.7	3.3
	Rod and Reel*	5.5	0.0	12.4	9.7	3.5
NC Area 94A	Longline	0.5	0.0	1.8	0.4	0.0
SW Atlantic	Longline	0.0	0.0	0.0	0.0	0.0
TOTAL		5,568.1	7,090.0	5,529.5	2,407.2	2802.3

* 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) increased from 67.1 mt in 2008 to 119.4 mt in 2009 (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.

Table 2.2-SKJ. Landings (mt) of Skipjack Tuna from 2005 to 2009						
Area	Gear	2005	2006	2007	2008	2009
NW Atlantic	Longline	0.05	0.04	0.0	0.1	0.4
	Gillnet	2.2	0.2	0.07	0.04	3.3
	Handline	0.9	0.2	0.3	0.4	2.8
	Trawl	0.07	0.7	0.005	0.003	0.0
	Trap	0.0	0.3	0.0	0.0	0.0
	Pound net	0.0	0.5	0.0	0.0	0.0
	Rod and Reel*	8.1	34.6	27.4	21.0	75.7
	Unclassified	0.01	0.06	0.6	0.5	1.2
Gulf of Mexico	Longline	0.3	0.0	0.0	0.05	0.05
	Handline	0.02	0.0	0.2	0.06	0.2
	Rod and Reel*	3.1	6.4	23.9	16.3	22.0
Caribbean	Longline	0.2	0.2	0.02	1.3	0.05
	Trap	0.1	0.05	0.0	0.0	0.0
	Gillnet	0.06	0.02	0.0	0.01	0.6
	Handline	10.9	10.0	13.7	16.0	8.8
	Rod and Reel*	3.9	7.7	0.2	11.3	4.3
TOTAL		29.9	61.0	66.5	67.1	119.4

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

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 2009 increased by approximately 28 mt from 488.5 mt in 2008 to 516.5 mt (Table 2.3-BET). Note that, like yellowfin tuna, the estimates of rod & 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.

Table 2.3-BET. Annual Landings (mt) of Bigeye Tuna from 2005 to 2009						
Area	Gear	2005	2006	2007	2008	2009
NW Atlantic	Longline	272.9	469.4	331.9	380.2	386.1
	Gillnet	0.0	0.2	1.0	0.04	0.0
	Handline	6.2	21.5	16.8	6.9	4.6
	Harpoon	0.0	0.2	0.0	0.0	0.0
	Trawl	0.6	0.0	0.4	0.0	0.0
	Trap	0.0	0.0	0.0	0.0	0.3
	Troll	0.0	0.0	0.9	0.8	0.6
	Rod and Reel*	165.0	422.3	126.8	70.9	77.6
	Unclassified	0.6	0.8	0.9	2.1	1.9
Gulf of Mexico	Longline	25.2	37.7	37.0	14.0	19.5
	Handline	0.1	1.5	0.01	0.0	0.07
	Rod and Reel	0.0	24.3	0.0	0.0	0.0
Caribbean	Longline	6.9	10.5	3.4	8.9	3.8
	Handline	0.04	0.0	0.0	0.0	0.0
NC Area 94A	Longline	6.9	3.0	8.4	4.6	0.0
SW Atlantic	Longline	0.0	0.0	0.0	0.0	0.0
TOTAL		484.4	991.4	527.3	488.5	516.5

* 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. Albacore tuna are also 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; these catches increased substantially throughout the 1990s but were relatively low in 2008 and 2009. Nearly all of the U.S. Albacore landings were 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 188 mt in 2009, a decrease of 60 mt from 2007 (Table 2.4-ALB).

Area	Gear	2005	2006	2007	2008	2009
NW Atlantic	Longline	88.9	84.8	109.9	107.2	140.1
	Gillnet	6.0	2.1	1.0	2.1	5.6
	Handline	3.0	2.6	5.4	0.2	0.5
	Trawl	1.7	1.1	0.3	0.01	0.08
	Trap	1.7	0.5	0.4	0.005	0.01
	Troll	0.0	0.0	0.2	0.2	0.07
	Rod and Reel*	356.0	284.2	393.6	125.2	22.8
	Unclassified	9.9	5.6	4.2	2.0	1.3
Gulf of Mexico	Longline	6.9	7.6	15.4	10.2	16.7
	Handline	0.1	0.07	0.0	0.0	0.01
Caribbean	Longline	12.1	10.5	1.2	0.4	0.3
	Gillnet	0.002	0.0	0.0	0.0	0.0
	Handline	1.1	0.4	0.2	0.4	0.003
NC Area 94A	Longline	0.6	0.03	0.3	0.08	0.3
SW Atlantic	Longline	0.0	0.0	0.0	0.0	0.0
TOTAL		488.0	399.5	532.1	248.1	187.9

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

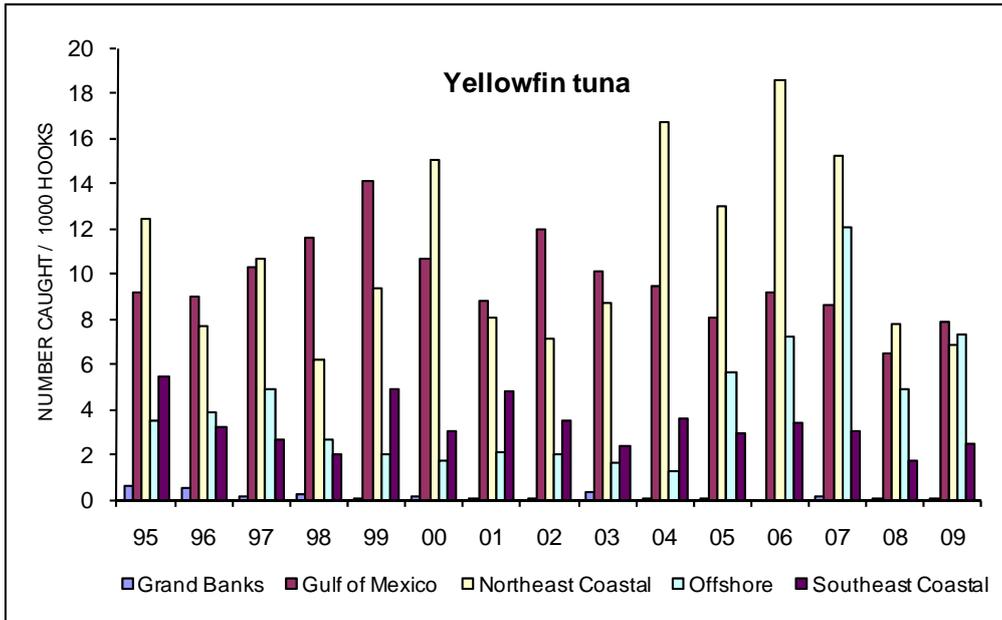


Figure 2.1 – YFT. Nominal catch rates for YFT in U.S. pelagic longline logbook reports

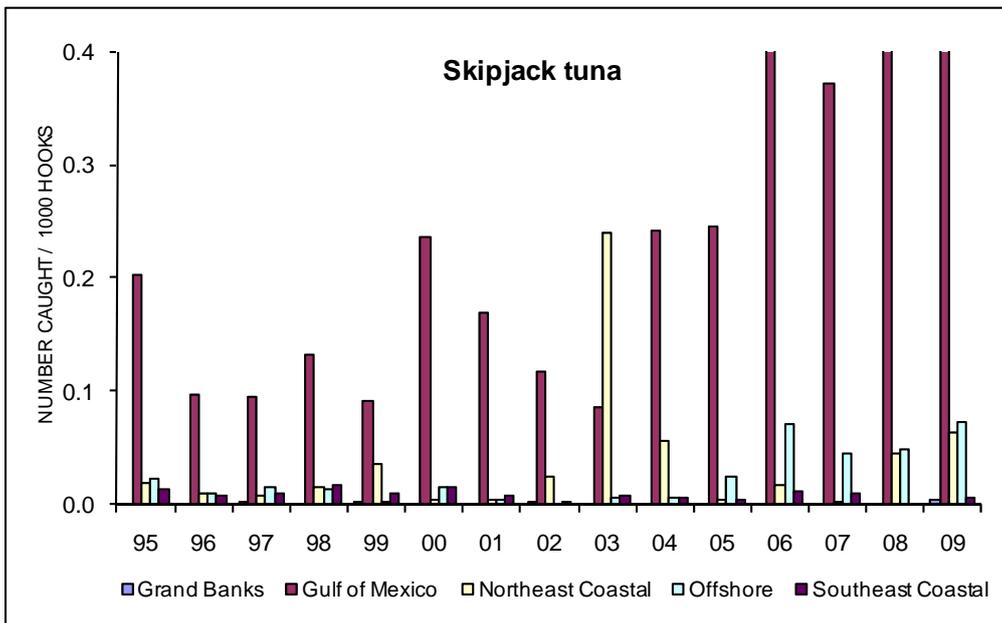


Figure 2.2 – SKJ. Nominal catch rates for SKJ in U.S. pelagic longline logbook reports.

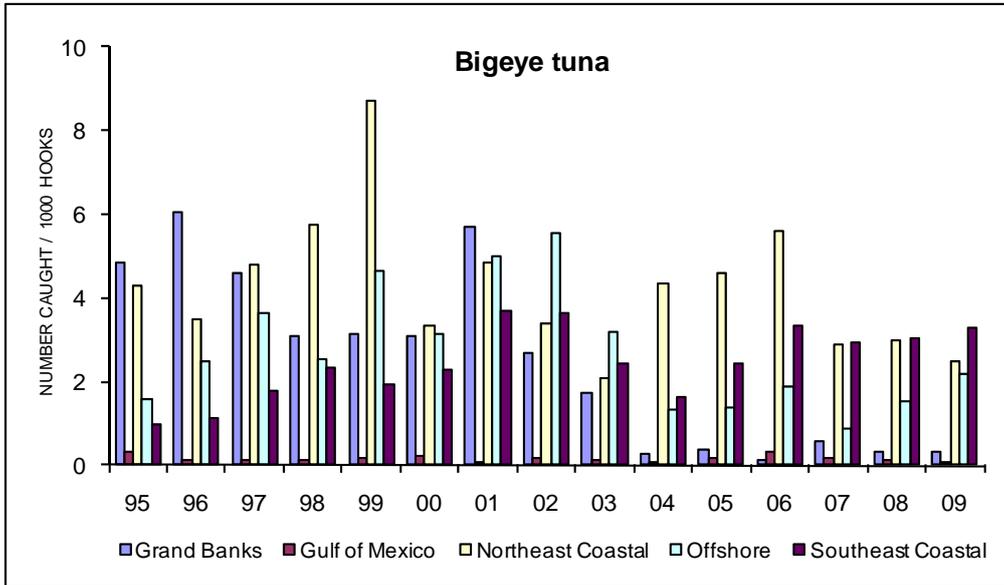


Figure 2.3 – BET. Nominal catch rates for BET in U.S. pelagic longline logbook reports.

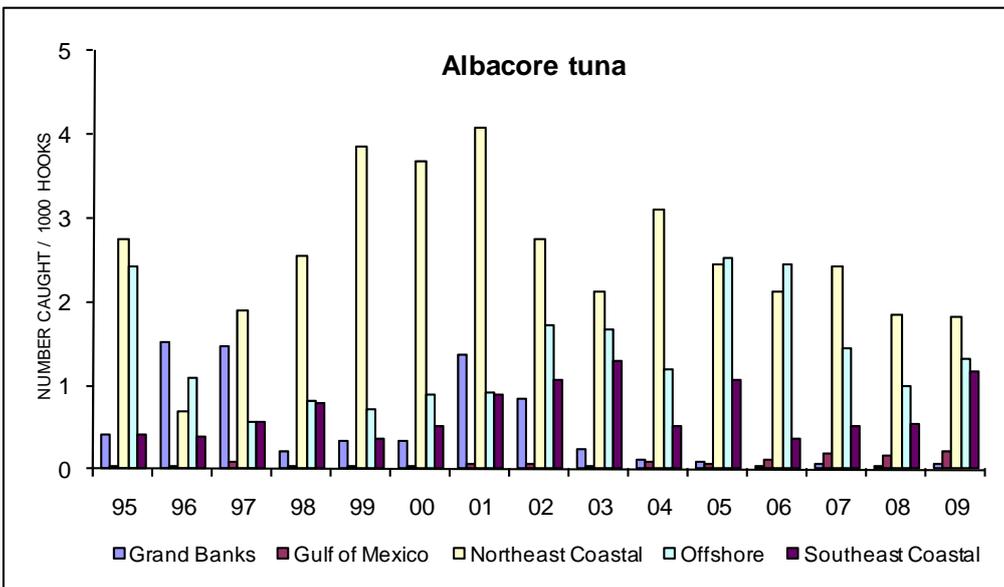


Figure 2.4 – ALB. Nominal catch rates for ALB in U.S. pelagic longline logbook reports.

Bluefin Tuna. The U.S. bluefin fishery continues to be regulated by quotas, seasons, gear restrictions, limits on catches per trip, and size limits. These regulations are designed to manage total U.S. landings to conform to ICCAT recommendations. U.S. 2009 provisional estimated landings and dead discards from the northwest Atlantic (including the Gulf of Mexico) were approximately 1,068 mt and 160 mt, respectively. Those estimated landings and dead discards represent an increase of approximately 307 mt from the 2008 estimates, and are the highest since the 2005 estimates. The 2009 landings by gear were: 65.6 mt by harpoon, 860 mt by rod and reel, and 291 mt by longline (including discards) of which 111 mt were from the Gulf of Mexico.

In response to ICCAT regulations limiting the allowable catch of small fish by U.S. fishermen, enhanced monitoring of the rod and reel fishery was implemented in 1993 for the purpose of providing near real-time advice 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 2009 rod and reel fishery off the northeastern U.S. (including the North Carolina winter fishery) for landings in several size categories were 23 fish < 66 cm, 2575 fish 66-114 cm, 2024 fish 115-144 cm and 5672 fish 145-177 cm (an estimated 0.09, 55, 88, and 419 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.

Area	Gear	2005	2006	2007	2008	2009
NW Atlantic	Longline**	72.7	104.4	70.7	107.1	123.7
	Handline	2.3	0.3	0.0	0.6	0.1
	Harpoon	31.5	30.3	22.5	30.2	65.6
	Purse seine	178.3	3.6	27.9	0.0	11.4
	* Rod and reel (>145 cm LJFL)	170.4	217.2	235.4	305.7	717.1
	* Rod and reel (<145 cm LJFL)	254.4	158.2	398.6	352.2	143.3
	Unclassified	0.0	0.0	0.0	0.3	0.0
Gulf of Mexico	Longline**	118.5	88.1	81.2	111.6	111.3
NC Area 94A	Longline**	20.3	12.1	12.4	12.3	56.0
TOTAL		848.4	614.8	848.7	919.9	1,228.6

* 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 2009, the provisional estimate of U.S. vessel landings and dead discards of swordfish was 2,838 mt (Table 2.6-SWO). This estimate represents an increase from the 2,530 mt estimated for 2008. The provisional landings, including dead discard estimates, by ICCAT area for 2009 (compared to 2008) were: 490 mt (386 mt) from the Gulf of Mexico (Area 91); 1,815 mt (1,774 mt) from the northwest Atlantic (Area 92); 23 mt (58 mt) from the Caribbean Sea (Area 93); and 511 mt (311 mt) from the North Central Atlantic (Area 94A).

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 10,046 fish discarded dead in 2009. For the North Atlantic (including Gulf of Mexico and Caribbean Sea), the estimated tonnage discarded dead in 2009 was 142 mt, of which 135

was estimated due to longline gear. Overall, the estimates of dead discarded catch decreased by about 64 mt compared to the 2008 levels, which corresponded to approximately 5% of the commercially landed catch.

Total weights of swordfish sampled for sizing U.S. commercial landings by longline, trawl, and handline gears were 2,517 mt, 20 mt, and 104 mt, respectively, in 2009. The weight of sampled swordfish landings in 2009 were 95%, 88%, and 82% of the U.S. total reported annual landings of swordfish for longline, trawl, and handline, respectively. Again, incorporation of late reports into the estimated 2009 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 1996-2009.

Area	Gear	2005	2006	2007	2008	2009
NW Atlantic	Longline**	1,096.2	1,165.2	1,649.6	1,622.5	1,642.1
	Gillnet	0.0	0.0	0.2	0.0	0.0
	Handline	34.4	32.5	125.2	83.2	126.2
	Harpoon	0.0	0.3	0.0	0.0	0.05
	Trawl	8.2	3.5	6.5	7.6	22.9
	Rod and Reel*	53.1	50.6	65.9	56.7	19.0
	Unclassified	0.5	0.2	0.2	0.2	4.4
	Unclassified discards	4.2	5.1	5.5	4.1	25.1
Gulf of Mexico	Longline**	480.9	328.1	457.7	361.6	473.1
	Handline	0.3	0.1	0.2	1.2	0.9
	Rod and Reel*	1.5	2.1	2.3	19.0	12.6
	Unclassified	0.2	0.0	0.0	0.0	2.9
	Unclassified discards	3.9	2.7	5.5	4.6	19.4
Caribbean	Longline**	143.5	88.9	27.8	57.9	22.6
	Rod and Reel*	6.6	0.0	0.0	0.0	0.0
	Handline	0.0	0.0	0.0	0.0	0.003
	Unclassified discards	0.7	0.0	0.0	0.0	1
NC Area 94A	Longline**	552.2	378.6	338.9	311.6	511.2
	Unclassified discards	1.2	0.0	0.5	0.0	1.2
SW Atlantic	Longline**	0.0	0.0	0.0	0.0	0.0
TOTAL		2,387.6	2,057.9	2,682.8	2,530.3	2,838

* 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. tuna and swordfish longline fisheries. The U.S. Fisheries Management Plan for Atlantic Billfishes was implemented in October 1988. Only billfish that are caught by rod and reel gear may be landed and 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 Pelagic 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 2009 U.S. rod and reel landings for these billfish species, combining the geographical areas of the Gulf of Mexico (Area 91), the northwestern Atlantic Ocean west of the 60° W longitude (Area 92), and the Caribbean Sea (Area 93) are: 6.2 mt for blue marlin, 1.6 mt for white marlin, and 2.8 mt for sailfish. The estimates for 2008 were: 13.4 mt for blue marlin, 1.6 mt for white marlin, and 3.2 mt for sailfish.

In addition to restrictions on U.S. recreational landings, the Management Plan also imposed restrictions 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, Florida (USA). Estimates of the billfish bycatch discarded dead in the U.S. commercial longline and other commercial 2009 were 36.7 mt for blue marlin, 9.3 mt for white marlin, and 9.2 mt for sailfish. The estimated 2008 U.S. discarded dead bycatch was 37.6 mt, 9.7 mt, and 9.4 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) proposed 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 2009, the species of shark with largest amount of landings (in weight) corresponded to shortfin mako (*Isurus oxyrinchus*) with a total of 194 mt, followed by hammerhead sharks (*Sphyrna sp.*), thresher sharks (*Alopias spp.*), and sandbar shark (*Carcharhinus plumbeus*) with 10, 8, and 5 mt, respectively.

Blue shark (*Prionace glauca*) commercial landings were also very low with only 3 mt in 2009. However, dead discards for this species amounted to 101 mt, the largest amount of any shark species discarded by the U.S. commercial fleet. The second largest amount of dead discards by this fleet corresponded to bigeye thresher shark (*Alopias superciliosus*) with 46 mt followed by scalloped hammerhead shark (*Sphyrna lewini*) with 44 mt.

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, growth and reproductive biology, methods to evaluate hypotheses about mixing and movement patterns, spawning area fidelity, stock structure investigations and population modeling analyses.

Ichthyoplankton surveys in the Gulf of Mexico during the bluefin spawning season were continued in 2009 and 2010. In addition to the regular survey, which occurs over a fixed spatial grid in May, adaptive sampling was carried out in April 2010 in collaboration with NASA and scientists from Mexico (INAPESCA). Adaptive sampling focused on the area along the Yucatan Coast in the western Caribbean where larvae were collected in 2009, and in the SW Gulf of Mexico. Stations were selected based upon a predictive larval habitat model and current ocean conditions in order to provide high resolution physical and biological mapping of larval scombrids in relation to rapidly changing current flows and gyre movement. Development of a predictive larval habitat model using only remote sensing inputs is proceeding with the incorporation of altimetry data in addition to SST and Chl. In order to increase the number of bluefin larvae collected and provide additional samples for genetic testing, an additional net was added to collect samples from 0-20 meters in depth, and a MOCNESS was deployed in the third leg to sample the top 50 meters. Part of the final leg of the cruise was re-directed to support NOAA's efforts in response to the Deep Water Horizon oil spill.

Scientists from Texas A & M University and the University of Maryland conducted further analyses on age and stock structure of bluefin tuna using otolith chemistry particularly focusing on large bluefin from the Gulf of St. Lawrence, Gulf of Mexico and the Mediterranean Sea. This research is greatly facilitated through continued collaboration with Canadian, Italian, and Spanish scientists. Results from stable isotope analysis of otoliths provide strong evidence for natal homing by two populations of Atlantic bluefin tuna each with discrete centers of origin (Mediterranean Sea and Western Atlantic). On the other hand, high rates of mixing occurred for juveniles (age 2-5 years) collected in U.S. waters, where over 50% of individuals originated from the Mediterranean Sea. The research on age structure was used to develop a new growth curve that predicts smaller sizes at age for older fish. The new growth curve was used in the 2010 assessment. With continued support and directed sampling, it should be possible to feed this type of information directly into stock assessments.

Scientists from Stanford University and the Tag-A-Giant research team continued to deploy electronic tags on bluefin tuna in the western Atlantic in 2009 (n=32 deployments). One additional bluefin tuna was archival tagged in a pilot project in Italy. Tagging in the Gulf of St. Lawrence (GSL) in collaboration with Canadian scientists and fishermen revealed a strong linkage between this area and the Gulf of Mexico (GOM) spawning grounds, including the region affected by the April 2010 Deep Water Horizon oil spill. Habitat utilization modeling of electronic tagging and fisheries data found a separation of spatio-temporal distribution of bluefin and yellowfin tuna in the GOM. In collaboration with scientists from the University of British Columbia, a Bayesian, spatially explicit, quarterly time step, statistical catch-at-age model was developed that is fitted to conventional and electronic tag-track data, historic catch-at-age reconstructions and otolith microchemistry data on origin 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 the 2008 and projects the outcomes of various management scenarios. The team has also developed 26 new microsatellite loci, most tetra or tri nucleotide repeats that can be used for population assignment to one of the known stocks (GOM, eastern Mediterranean, western Mediterranean). Genomic markers for assessing maturity based on gene expression utilizing microarray techniques also have been developed.

From early March through mid June 2009, the National Marine Fisheries Service conducted extensive observations of the pelagic longline fishery in the Gulf of Mexico. Roughly 75% 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.

The National Marine Fisheries Service has also been assessing the efficacy of new technologies and changes in fishing practices in reducing the bycatch mortality of bluefin tuna in the directed yellowfin tuna fishery in the Gulf of Mexico. The 2008-09 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 to-date are encouraging indicating that using a circle hook weaker than the traditionally 16/0 circle hooks significantly reduces de bluefin tuna catch rates (up to approximately 70%) without showing significant reductions in the catch rates of yellowfin tuna.

2.2.2 Swordfish Research

Scientists from Nova Southeastern University recently completed a two-year study of the commercial buoy-gear, to determine the rates of bycatch and lethal hook sets. They observed numerous fishing trips in the Florida Straits between 2007 and 2009 and recorded data on catch, discards, depth, water temperature and catch per unit effort. The results indicated low bycatch rates of snake mackerel, sharks and juvenile swordfish, comparable to those of the recreational fishery. Encouragingly, there was zero incidental bycatch of sea turtles or billfishes (e.g. sailfish and marlin) on observed trips. The investigators also report that very few lethal hook sets occurred. Additional swordfish research is ongoing at Nova Southeastern University, including pop-up satellite archive tag (PSAT) data analyses and diet composition studies.

Researchers at the Molecular Ecology and Fisheries Genetics Laboratory of Texas A&M University at Galveston continue to examine the population structure of Atlantic swordfish, with an emphasis on characterizing allele frequencies of nuclear genes to quantify admixture within the Atlantic Ocean and its adjacent basins. They have developed a fast, inexpensive, and highly sensitive genotyping technique (high resolution melting analysis, HRMA) and a battery of 10 nuclear markers that are currently used to characterize NE-ATL, NW-ATL, S-ATL and MED, as well as West Indian Ocean samples. To date, the results corroborate the existing three stock hypothesis used by ICCAT (N-ATL, S-ATL, MED). However, the authors also report that their techniques are suitable to examine the temporal and spatial scales of mixing across management boundaries, given the availability of sufficient samples. These results would be of great importance for mixed stock-analyses.

An ongoing collaboration between U.S. scientists at Federal and State Laboratories (SC) and the University of New Hampshire, Canadian scientists and the swordfish harpoon fleet began in 2005. Results of PSAT deployments through 2009 suggested a more complex stock structure than was previously understood. Swordfish also appear to exhibit fidelity to their feeding sites. A newly initiated collaborative study will examine swordfish population structure in the northwestern Atlantic using pooled data from swordfish satellite tagging programs in Canada and the United States. The investigators report that the results from the PSAT studies to date are consistent with the results from conventional tagging, which show few movements of swordfish tagged in the Northwest Atlantic into the Northeast Atlantic.

2.2.3 Tropical Tunas Research

U.S. scientists participated in the ICCAT SCRS intersessional meeting of the Tropical Species Group, held in Madrid, Spain, April 20 to 25, 2009. U.S. scientists also participated in the meeting of the International Working Group on Tuna Purse Seine and Baitboat Catch Species Composition Derived from Observer and Port Sampler Data, held in Sète, France, 15-19 June 2009.

In 2009, U.S. scientists have presented several papers to the SCRS concerning tropical tunas. A proposed method to examine yellowfin tuna growth using statistical catch-at-age model diagnostics was described. Abundance indices of Atlantic bigeye and yellowfin tuna were evaluated by simulating movement. The sensitivity of Atlantic yellowfin tuna virtual population analysis results to an alternative growth model assumption was evaluated. Also, the impact of time-area closures on the yield per recruit and spawners per recruit of Atlantic tropical tunas was quantified under various assumptions regarding natural mortality

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 with the Texas A & M University, using popup satellite tag technology to evaluate habitat use of yellowfin tuna in the Gulf of Mexico. Progress was made during 2009 and currently they have deployed 20 tags and monitored yellowfin tuna for up to 94 days. The work is in progress and will continue through the end of 2010.

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.

The Stock Synthesis (SS) model from the NMFS Toolbox was used for the northern albacore stock for the first time for the 2009 assessment. The SS model was configured as closely as possible to the standard Multifan-CL (MFCL) model to facilitate comparisons, but other configurations were also presented to take advantage of some of the features found in SS but not in MFCL. The SS model was later modified to a 2-sex model using sex ratio data to improve the observations that nearly all large albacore are female. It is expected that this version of the model will be presented at the next albacore assessment meeting.

Work was presented that is aimed at further refining a precautionary approach to setting TAC, with the northern albacore assessment used as an example. Alternatively, target fishing mortality rates could be adopted such that the expected probability of the stock excursion below B_{MSY} due to natural variability and uncertainty in estimation is negligibly low, thus establishing a target $B_{targ} > B_{MSY}$.

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 2009 SEFSC 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 the next updated population models expected to be made in 2012. 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.

During 2009, SEFSC initiated a pilot study in collaboration with the Virginia Institute of Marine Science to evaluate whether systematic vs. random sampling would yield more accurate estimates of catch length composition. This study is being carried out in commercial fish houses off the Virginia area and the results will aid in refining sampling methodologies for king mackerel fisheries and lead to improvements in catch at size composition for use in future stock assessments.

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 2009 SEFSC 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 the next updated population models expected to be made in 2012. 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.

During 2009, staff in the Beaufort laboratory further evaluated indices of abundance developed for the stock assessment using hierarchical analysis methods and subsequently published the results in a peer reviewed journal (Conn, P. B. 2010. Hierarchical analysis of multiple noisy abundance indices. *CJFAS* 67:108-12)

2.2.6 Shark Research

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. Analysis of the behavior of the pelagic longline is still being conducted, but preliminary results identify 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. Analyses to understand the survivorship of pelagic sharks are still ongoing and will be presented in the future. Additionally, the use of 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. 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.

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.

As part of the training component of this cooperative Brazil-United States research project, an international course entitled: "A practical course in demographic methods and ecological risk assessment using spreadsheets" was taught by Dr. Enric Cortés at the Florida Museum of Natural History, University of Florida, Gainesville, 13-17 July 2009. The course included students mostly from Brazil, but also from Argentina, Colombia, Venezuela, Uruguay, Portugal, Spain, and the United States.

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. 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, six satellite transmitters (4 PSATs and 2 SPOTs) obtained through a grant awarded to conduct this project, have been successfully deployed on blue sharks to date to characterize in detail the spatio-temporal habitat use of this species.

Staff from DINARA and the SEFSC are also working cooperatively on the development of an identification guide for sharks of the Atlantic Ocean for ICCAT. This project is nearing completion.

2.2.7. *Billfish Research*

The NMFS SEFSC again played a substantial role in the ICCAT Enhanced Research Program for Billfish in 2009, with a U.S. scientist acting as western Atlantic coordinator. Major accomplishments in the western Atlantic in 2009 were documented in SCRS/09/149. Highlights include 14 at-sea sampling with observers on Venezuelan industrial longline vessels through September 2009. Most of the trips accomplished were on Korean type vessels fishing under the Venezuelan flag. Biological sampling during the 2009 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. Shore-based sampling of billfish landings for size frequency data, as well as tournament sampling was obtained from Venezuela, Grenada, U.S. Virgin Islands, Bermuda, Barbados, and Turks and Caicos Islands. 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 2009; a total of 30 tag recovered billfish and sharks. Ten tag recovered blue marlin, 10 white marlin, 6 sailfish, and 4 sharks were submitted to the Program Coordinator in 2009. Age, growth, and reproductive samples from a few very large blue marlin (over 1000 lbs) were obtained during 2009.

An international collaboration was formalized in 2008 by the NOVA Southeastern University (Dr. Mahmood Shivji) on billfish genetics in 2008 and continued in 2009. Collaborators include the United States (SEFSC), Venezuela (Instituto Oceanografico, Universidad de Oriente), Uruguay (Recursos Pelagicos, Direccion Nacional de Recursos Acuaticos), 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 new paper describing some of the preliminary work was published in *Endangered Species Research*. (9:81-90) in 2009. The SEFSC finished PSAT research on sailfish and blue marlin in the eastern and western north Atlantic relative to oxygen minimum zones during 2009 and the resulting publication

in Fisheries Oceanography is expected next year. Several of these papers were also published in peer review journals during 2009. 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.

The cooperative billfish research between U.S. (Virginia Institute of Marine Science) and Brazilian scientists that was initiated in 2005 continued in 2009. This research will also focus on PSAT tagging of billfish and the collection of biological materials (including larvae) for ageing and molecular genetic analyses. 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

U.S. longline fisheries in the Western North Atlantic (WNA) include the pelagic longline fishery, which is directed primarily either at swordfish or yellowfin tuna, the bottom longline fishery for sharks, and the bottom longline fishery for groupers, snappers, and tilefish. Observers in the U.S. pelagic longline fishery reported seven seabird catches, including three northern gannets (2 live, 1 dead), three greater shearwater (3 dead), and 1 unidentified bird (1 dead), from the Mid- Atlantic Bight (MAB) in 2009. This was all of the 2009 observed seabird bycatch, except for two brown pelicans caught in the experimental weak-hook pelagic longline fishery for yellowfin tuna in the Gulf of Mexico (GOM). The GOM experimental fishery had 100% observer coverage. There was no bird bycatch in the bottom longline fishery in 2009.

Of the 151 seabirds observed caught in the WNA U.S. pelagic longline fishery from 1992 through 2009, 45.7% were caught in the MAB. Excluding the 15 birds observed in the NED in 2002-2003 under 100% observer coverage and the 2 birds observed in GOM in 2009 under 100% observer coverage, 50.7% of the total observed bycatch from 1992-2009 was in the NED. The two pelicans observed caught in the GOM experimental fishery in 2009 represent 40% of the total observed seabird bycatch reported from U.S. pelagic longline vessels in the GOM from 1992 through 2009. At the usual rate of observer coverage, ~8-10%, the probability of observing these two catches would have been quite low. Unidentified seabirds (37.7%), unidentified gulls (13.2%), and unidentified shearwaters together made up slightly more than 50% of the observed bycatch from 1992-2009. The percentage of observed bird bycatch unidentified to species has been decreasing since 2004, when the pelagic longline observers began to receive seabird identification training as part of their routine training at the Southeast Fisheries Science Center. The seabird bycatch consisted of 71% of birds that were dead when brought aboard. The northern gannet was the only species usually boarded alive (only 18% were boarded dead).

Winter et al. (2010) estimated the annual bycatch, 1992-2008, of U.S. pelagic longline vessels operating in the NWA by means of eight alternative models that used observed seabird bycatch and longline logbook effort. Using the best model by various criteria (a lognormal general linear model), they estimated annual values ranging from 0 to 625, with no seabird catch in 1996 and the highest catch in 1997. The delta-lognormal model used had two components, one predicting the proportion of positive fishing sets (number of sets with at least one seabird caught) and the other predicting numbers caught in positive sets.

Estimated seabird bycatch of the WNA U.S. pelagic longline fleet, as predicted by the GLM L model.

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
GLM L	42	123	173	213	0	625	110	54	68	176	233	55	146	24	41	99	81

Winter et al. (2010) found that the variability in estimates was strongly related to the percentage of effort covered by observers, which ranged from 2 to 14%. These results are consistent with those presented in document SCRS/2010/058. Winter et al. (2010) did not find a significant decrease in seabird bycatch with the use of circle hooks. Circle hooks have been used exclusively in the NWA fishery since regulations were imposed in July 2004 and were used on a voluntary basis by some operations prior to that time.

Winter, A., Y. Jiao, and J. A. Browder. 2010. Modeling low rates of seabird bycatch in the U.S. Atlantic longline fishery. Report to NOAA National Marine Fisheries Service, Southeast Fisheries Science Center, Miami, FL. 23 pp.

2.2.9 Tagging

Participants in the Southeast Fisheries Science Center's Cooperative Tagging Center (CTC) and The Billfish Foundation (TBF) Tagging Program (TBF) tagged and released 2,338 billfishes (including swordfish) and 366 tunas in 2009. This represents a decrease of 66.5% for billfish and a decrease of 13.9% for tunas from 2008 levels. There continues to be several electronic tagging studies involving bluefin tuna and billfish in the Atlantic Ocean and adjacent waters during 2009. These are discussed in the bluefin and billfish research sections above. There were 92 billfish recaptures from the CTC and TBF projects in 2009. This represents an increase of 238% from 2008. These recaptures were 43 sailfish, 14 swordfish, 14 white marlin, 19 blue marlin, and one striped marlin. A total of 11 tunas were recorded as recaptures in 2009, of which nine were bluefin, one was a yellowfin, and one was a blackfin tuna. This recapture level was an increase of 175% from the 2008 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. 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 2009 ranged from 2.5% in 1992 to 18.1% in 2009. The targeted sampling fraction of the U.S. pelagic longline fleet was increased to 8% in 2002.

A total of 13,152 sets (9,624,726 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 2009. During the period, observers recorded over 398,978 fish (primarily swordfish, tunas, and sharks), in addition to marine mammals, turtles, and seabirds during this time period. Document SCRS/04/168 provided a more detailed summary of the data resulting from observer sampling between 1992 and 2002. Similar to 2007 and 2008, from 30 March through 12 June 2009, the longline pelagic observer program increased the coverage of the longline fleet operating in the Gulf of Mexico. The goal of this extended coverage was to collect data to better characterize the interaction between the longline fleet and bluefin tuna during the spawning season. A total of 739 longline sets were observed (547,294 hooks) from 34 vessels which accounted for approximately 84% of the observed trips during that period.

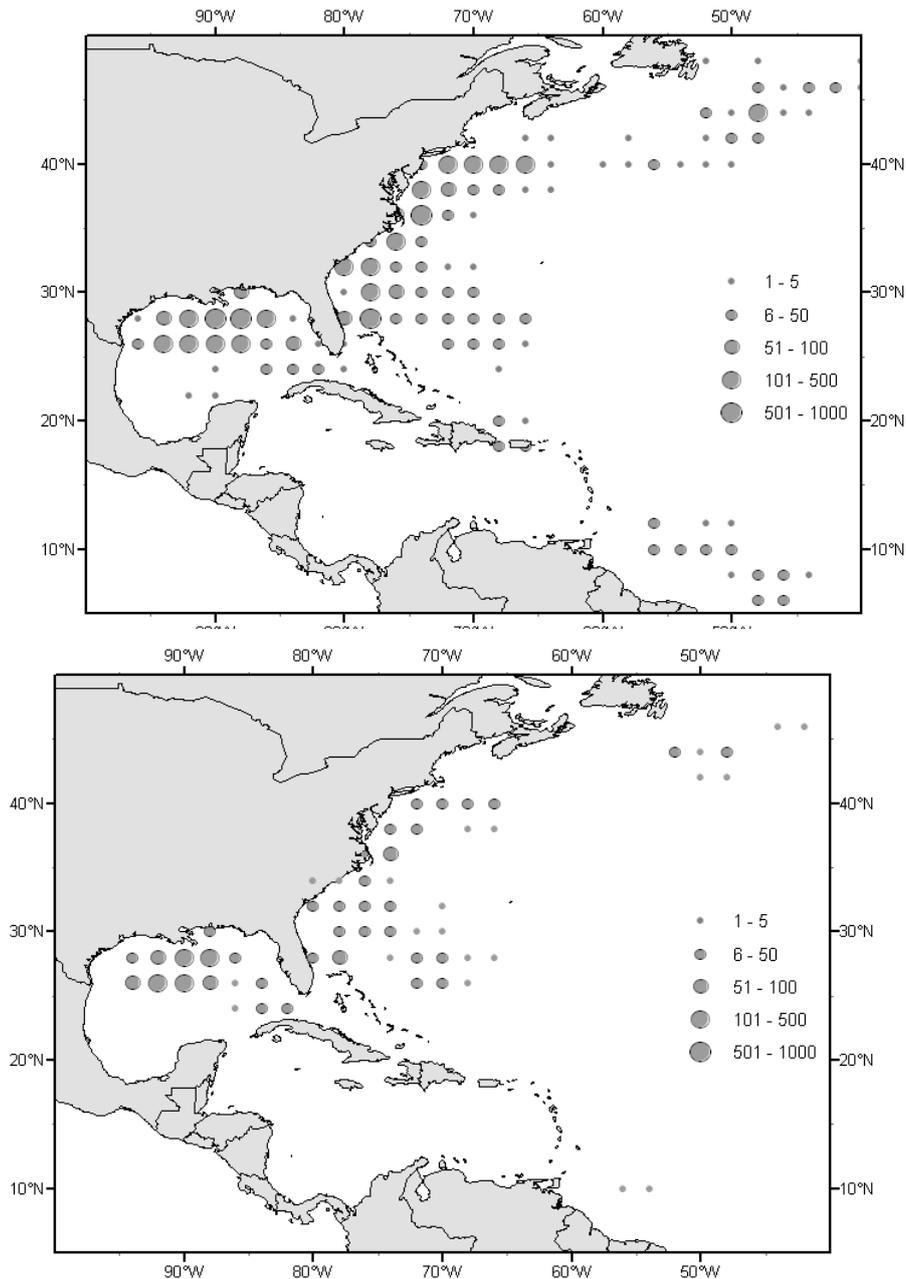


Figure 2.5 – Position of longline sets as reported in pelagic logbooks (upper panel) and observed by the U.S. pelagic observer program (lower panel) in 2009 summarized by 2°x2° square.

Shark Gillnet Fishery Observer Coverage

The directed shark gillnet fishery operates year round in coastal waters off the U.S. southeast coast. Sharks are the primary target species, but at times other species are also targeted within the same trip. Gillnets are set either in a drift, strike, or sink fashion. On-board observers have conducted observations of this fishery from 1993-1995 and 1998-present and reports of the catch and bycatch from these observations are available. All vessels that have an active directed or indirect shark permit and fish with gillnet gear are selected for coverage. A total of 421 sets comprising various gillnet fisheries were observed in 2009. Set locations ranged from North Carolina to the Florida Keys in the Atlantic Ocean, as well as in the northern Gulf of Mexico. Catch composition by number of all sets for all targets was 85.8 % teleosts, 13.4 % shark, 0.75 % invertebrates and 0.3 % non-shark elasmobranchs.

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 affect quotas, drastically reduce retention limits, and modify the authorized species in commercial shark fisheries. Specifically, commercial shark fishermen not participating in the research fishery are no longer allowed to land sandbar sharks, which have been the main target species for most fishermen. Additionally, commercial fishermen 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 2009, a total of 94 trips with a total of 191 hauls were observed. Gear characteristics of trips varied by area (Gulf of Mexico or the U.S. Atlantic Ocean) and target species (grouper/snapper or grouper/tilefish, tilefish, non-sandbar large coastal shark, sandbar shark). Sharks comprised 97.8% of the catch, followed by teleosts (1.8%), invertebrates (0.1%), and batoids (0.2%).

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)

Recommendation 08-04 revised the annual WBFT quota for the United States, inclusive of dead discards, to 1,034.9 mt for 2009 and 977.44 mt for 2010, respectively, 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 2009 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 may 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 2009 and 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 accounts for this mortality as part of the quota specification calculation process. However, when the United States sets the annual quota specifications delineating quotas and subquotas for the fishery at the beginning of the year, it must use a proxy for dead discards as complete prior year dead discard information is not yet available. For example, the 2007 dead discard estimate of 90 mt was used as a proxy in setting the 2009 quota specifications. After accounting for dead discards by using this proxy, and applying the underharvest from the 2008 fishing year (1 January 2008 through 31 December 2008) to the 2009 fishing year (1 January 2009 through 31 December 2009), the resulting adjusted 2009 fishing year quota was 1,462.4 mt. Similarly, for the 2010 quota specifications, the United States accounted for dead discards by using the 2008 dead discard estimate of 91 mt as a proxy and applied the underharvest from the 2009 fishing year to the 2010 fishing year (1 January 2010 through 31 December 2010), resulting in an adjusted 2010 fishing year quota of 1,193.2 mt. The adjusted quotas presented in the U.S. compliance tables reflect updated landings for 2008 and 2009 as well as updated dead discard amounts for those years rather than the proxies discussed above. Also, in conformance with *Rec. 08-04*, the United States prohibits directed fishing for BFT in the Gulf of Mexico.

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

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)

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 (not inclusive of all data sources) indicate landings of four blue marlin and four white marlin from recreational fishing activities. Preliminary 2009 calendar year data from all data sources indicate landings of 44 blue marlin and 53 white marlin from recreational fishing activities. 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 (06-02, 09-02)

Recommendation 06-02 established a catch limit of 3,907 mt ww for the United States for 2007 and 2008, 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 made 2690 mt of the unused portion of the U.S. quota from the 2003-2006 management period available for use by specified ICCAT developing state members and a few others. Recommendations 08-02 and 09-02 extended the provisions of Recommendation 06-02 through 2009 and 2010, respectively. 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 2009. The United States did not prosecute a directed fishery for southern albacore in 2009.

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

Under Recommendation 07-02, the annual U.S. landings quota was 538 mt for 2008 and for 2009. The recommendation provided that overages/underages of annual catch limits should be deducted from, or added to, specific future catch limits, and *Rec. 07-02* limited carryover of underage to 25 percent of the initial U.S. 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 (1998), the United States submits the required reports providing a list of U.S. vessels operating in the fishery on an annual basis. The 2010 submission indicated that there were 237 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 (98-03)

The operative paragraphs of Recommendation 98-03, 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 2000 mt for the prescribed 5 year period.

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

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 a demonstrable effect 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. In conformance with this resolution, the United States provides shark data to the Secretariat, as appropriate. In addition, the United States adopted a National Plan of Action for the Conservation and Management of Sharks in February 2001, consistent with the International Plan of Action for Sharks.

3.1.14 Recommendations on Atlantic Sharks (04-10; 05-05; 06-10; 07-06; 08-07; 09-07)

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 includes landings of shortfin mako sharks, to ensure that catches of these species are within the U.S.-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. Recommendation 05-05 required CPCs to implement the provisions of Recommendation 04-10 for North Atlantic shortfin mako shark populations. The United States continues to fulfill the requirements of these recommendations through data collection programs and fulfills the fin limits through a variety of fishery restrictions including the Shark Finning Prohibition Act of 2000. This law prohibits the practice of finning nationwide 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 2006 Consolidated Atlantic Highly Migratory Species (HMS) Fishery Management Plan (FMP) that, among other things, required all sharks landed in the Atlantic Ocean, including the Gulf of Mexico and Caribbean Sea, to be landed with their fins 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. Additionally, the United States adopted a National Plan of Action for the Conservation and Management of Sharks in February 2001, consistent with the International Plan of Action for Sharks, which calls for management measures to reduce waste to the extent practicable and to protect vulnerable life history stages, such as juveniles. The United States also currently 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. In 2008, the United States found that shortfin mako sharks are experiencing overfishing and appear to be approaching an overfished status. In Amendment 3 to the 2006 Consolidated HMS FMP (1 June 2010; 75 FR 30484), NMFS committed to taking action at the international level to address overfishing of shortfin mako sharks.

In 2007, ICCAT adopted Recommendation 07-06 requiring 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. Specifically, CPCs are to submit Task I and Task II data for sharks, take appropriate measures to reduce fishing mortality in fisheries targeting porbeagle sharks and North Atlantic shortfin mako sharks, and implement research to identify potential nursery habitat of pelagic sharks. Furthermore, CPCs may conduct research on porbeagle sharks and North Atlantic shortfin mako sharks to submit to the SCRS. Recommendation 07-06 also requires the SCRS to conduct a stock assessment and recommend management advice for porbeagle sharks no later than 2009. U.S. scientists participated in 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 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.

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 exceed the standards set in ICCAT recommendations.

Sea Turtles/Marine Mammals. At present, the Atlantic pelagic longline fishery of the United States is subject to several discrete time/area closures that are designed to reduce bycatch in the pelagic longline fishery by

prohibiting pelagic longline fishing for ICCAT 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. Pelagic longline vessels may only fish for HMS in this area 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, 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. Effective 18 June 2009, 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, and limit 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).

General Ecosystem. 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 February 2010. These permits were extended until 30 September 2010. This research, which is being 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. 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.

Sharks. 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 Code of Federal Regulations.

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.

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.

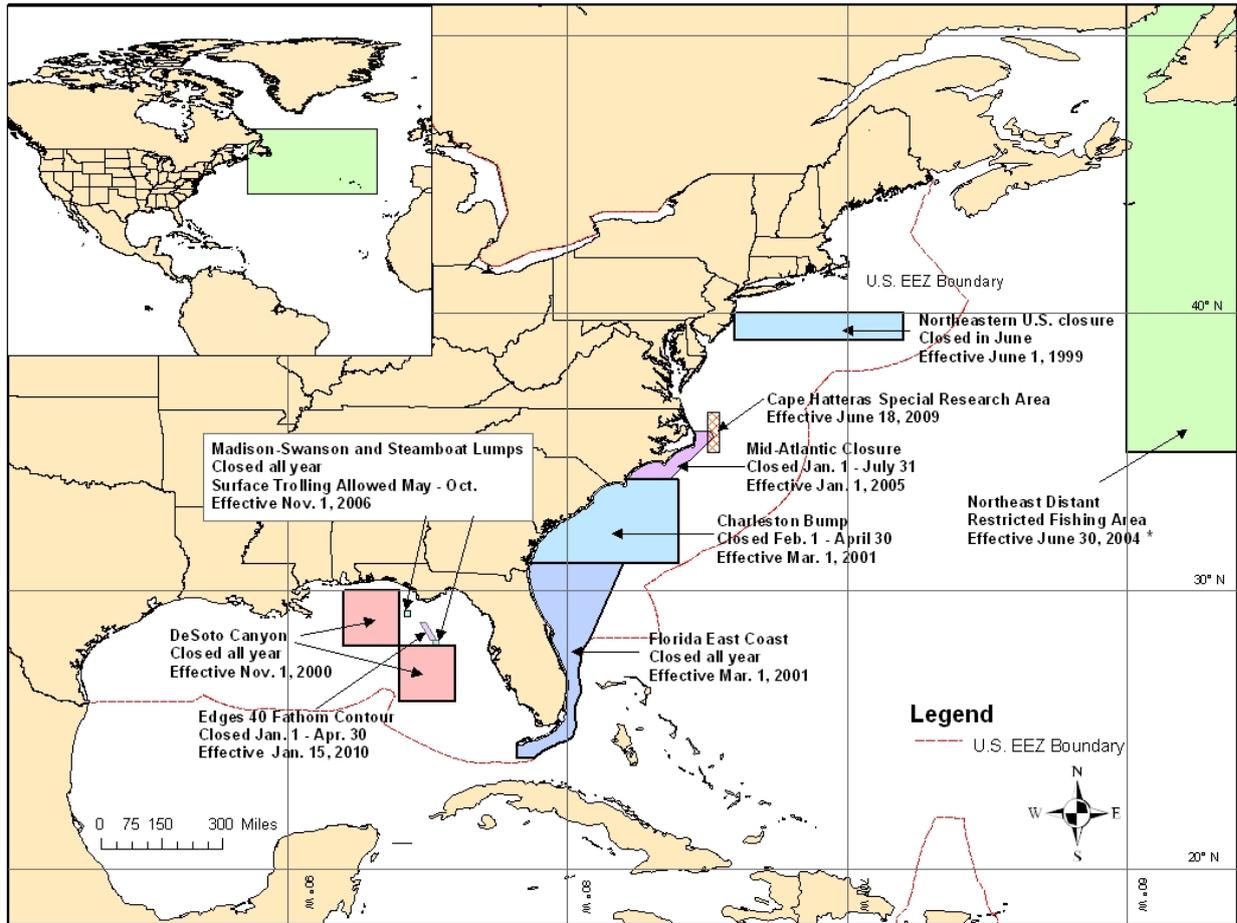


Figure 3.2.1 Selected existing U.S. time/area closures in HMS fisheries. Inset shows extent of the Northeast Distant restricted fishing area. The Mid-Atlantic Closure is applicable to bottom longline gear only. Note: the Northeast Distant (NED) was a closed area to all vessels as of 2001. It became the 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 trade restrictive measures were passed by the Commission at the 2009 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 ICCAT measures were implemented by the United States in 2004 (69 FR 70396).

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 (08-12; 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 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. No adjustments were necessary to comply with Recommendation 09-11.

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 first annual bluefin tuna catch documentation report was submitted to ICCAT before the 1 October 2009, deadline and covered the time period from 1 July 2008, through 30 June 2009. The bluefin catch documentation report for 1 July 2009 through 30 June 2010 has also been submitted. 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)

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 2010 for the period covering July 2009 through December 2009 and were submitted before the 1 October 2010, deadline for the first half of the 2010 calendar year.

3.4 Observer Programs and Related Activities

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 2009, the United States achieved 15 percent observer coverage expressed as a proportion of reported sets and 15.8 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. NMFS coordinates observer program management through its Office of Science and Technology/National Observer Program at the headquarters office outside of Washington, D.C. Observers for U.S. vessels in ICCAT fisheries are deployed from regional programs in Miami, Florida and Panama City, Florida.

The United States hosted the 2009 International Fisheries Observer and Monitoring Conference in Portland, Maine in July 2009 and sponsored the participation of a number of attendees from developing nations. This event was 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. The United States also organized and jointly conducted with the host government two observer training workshops in West Africa (Ghana and Senegal) over the last two years to help develop local capacity for such programs and is planning to organize additional observer trainings in the region. For more information, 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 for 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. Further, a list detailing the enforcement actions taken on ICCAT species is provided in Appendix 4.

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-Contracting 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 Pelagic 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 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.countmyfish.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 440 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 Metres Are Fishing in Accordance with ICCAT Management and Conservation Measures

3.7.5 Resolution on Sea Turtles (03-11)

The 2003 resolution on sea turtles encourages ICCAT members and cooperating non-members to collect and provide the SCRS with information on interactions with sea turtles in ICCAT fisheries, including incidental catches and other impacts on sea turtles. The measure also encourages the release of all sea turtles that are incidentally caught alive and to share information, including technical measures, to reduce the incidental catch of sea turtles, and to ensure the safe handling of all turtles that are released to improve their survivability. The resolution also calls for the development of data collection and reporting methods for the incidental by-catch of

sea turtles and to support efforts by the FAO to address the conservation and management of sea turtles. The United States complies with all of these requests. Consistent with this resolution, in 2009, the United States reported sea turtle interactions in the U.S. pelagic longline fleet to ICCAT.

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.

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. The United States was compliant with its statistical reporting obligations in 2009.

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 advance implementation of an electronic system for the collection and dissemination of trade information. The International Trade Data System is a requirement under U.S. domestic legislation aimed at improving the efficiency of import and export processes as well as ensuring compliance with obligations to monitor the origin and safety of products. Given the domestic requirement to collect information from the trade community (shipper, carriers, brokers, etc.) in an electronic format, the United States is investigating ways to integrate ICCAT's statistical document programs and catch document program into the internet-based electronic portal. NMFS has catalogued 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. NMFS data collection needs are being coordinated with U.S. Customs and Border Protection and other federal agencies. NMFS has started the process of promulgating regulations to implement the electronic collection of trade data for the subject seafood products by issuing an Advanced Notice of Proposed Rulemaking in May 2009 (www.regulations.gov). NMFS will consult with U.S. importers and exporters from ICCAT parties to determine the most efficient means of collecting the required data in electronic format to support admissibility decisions. More detailed information on the U.S. International Trade Data System can be found on the 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 2009, 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:

- [08-03] Recommendation by ICCAT on Mediterranean Swordfish
- [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 2009 to 30 September 2010, the Coast Guard boarded 200 vessels resulting in 4 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 2009 to 30 September 2010, the total Coast Guard Atlantic Ocean and Gulf of Mexico fisheries enforcement focused effort involved 2,502 aircraft patrol hours, 8,020 boat patrol hours, and 48,150 cutter (large vessel) patrol hours. In addition, states and territories of the United States with maritime boundaries relevant to ICCAT species enforcement on the Atlantic Ocean, Gulf of Mexico, and/or Caribbean Sea maintain a total of more than 1,400 officers dedicated to marine conservation law enforcement and reported 9,022 staff hours of focused enforcement of regulations for tuna and tuna-like species.

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>.

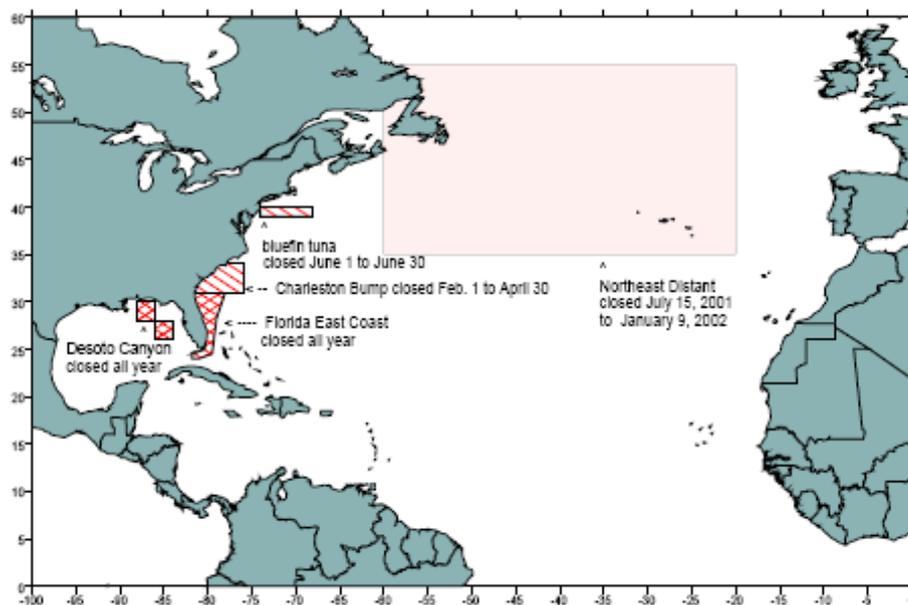
Federal register notices containing the full text of proposed and final regulations can be found at: <http://www.gpoaccess.gov/fr/index.html>.

Appendix 5: Capacity Building Assistance to ICCAT Countries (2008-2010)

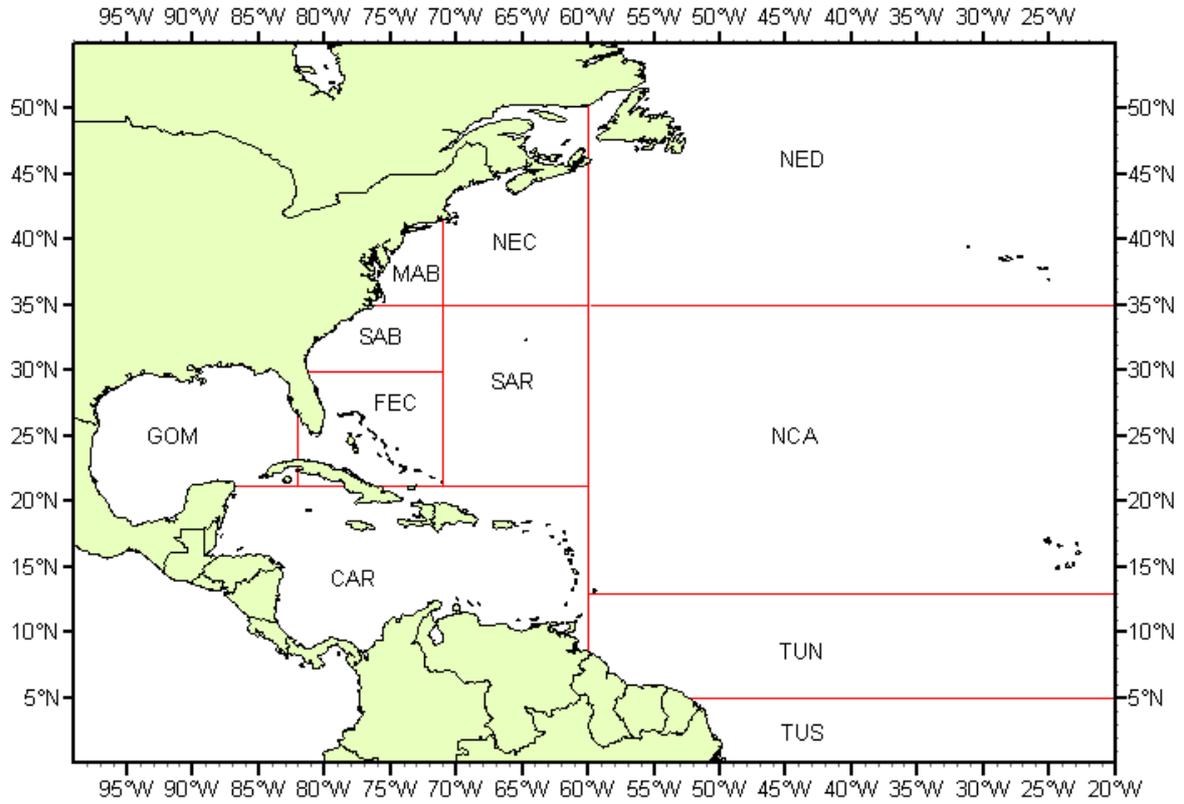
Appendix 1
Effects of time/area closures on the U.S. swordfish fishery

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, showed an increase in 2007 and 2008, and a slight decrease in 2009. Reported effort (hooks) declined initially, remained fairly stable through 2001 and further declined to the lowest reported number in 2006 (*Appendix Table 1.1*). The percentage effort in hooks and swordfish discarded dead in numbers (reported) and in metric tons (estimated) in 2007, 2008, and 2009 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 2007, 2008, and 2009 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 2008. Note that the Northeast Distant area is currently open for longline fishing only.



Appendix Figure 1.2- U.S. 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 U.S. 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	121	121	89	6,269,457
2009	114	112	85	6,472,993

Appendix Table 1.2. Numbers (reported) and in metric tons (estimated) of swordfish discarded dead and reported number of hooks in years 2007-2009 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	2007	2008	2009	Mean	2007	2008	2009	Mean	2007	2008	2009
CAR	433	11%	18%	4%	235,268	14%	36%	14%	12	7%	7%	2%
FEC	2,488	7%	10%	11%	607,495	49%	88%	102%	108	8%	15%	8%
GOM	1,806	125%	110%	79%	2,822,528	88%	69%	87%	64	79%	60%	36%
MAB	1,195	125%	74%	51%	990,152	131%	135%	103%	44	187%	52%	49%
NEC	767	24%	89%	36%	754,283	45%	69%	55%	21	28%	165%	71%
NED	972	27%	26%	16%	496,306	56%	49%	52%	35	13%	15%	23%
SAB	2,394	74%	72%	30%	585,496	107%	118%	117%	127	30%	44%	23%

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 2006-2008 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	2007	2008	2009	Mean	2007	2008	2009	Mean	2007	2008	2009	2007	2008	2009
CAR	Open	433	48	78	16	235,268	32,650	84,970	32,513	7	0.6	1.0	0.2	-6	-6	-7
FEC	Closed	2,362	132	154	212	465,346	193,197	319,775	375,823	38	0.0	2.4	3.1	-38	-35	-35
FEC	Open	126	48	100	96	142,149	107,039	214,918	265,577	2	0.6	1.6	1.4	-1	0	-1
GOM	Closed	1,019	10	7	0	234,433	5,850	5,510	4,850	12	0.1	0.1	0.0	-12	-12	-12
GOM	Open	787	2,244	1,981	1,459	2,588,096	2,473,673	1,954,414	2,466,418	9	23.4	25.3	17.9	14	16	9
MAB	Open	1,194	1,488	880	619	985,985	1,300,039	1,340,225	1,052,422	18	0.0	0.0	0.0	0	0	0
NEC	Closed	0	1			41,600	1,000			0	17.7	13.4	10.7	-1	-5	-8
NEC	Open	760	183	685	273	726,550	341,146	520,802	418,557	12	0.0	0.0	0.0	0	0	0
NED	Open	972	263	254	154	496,306	277,380	242,885	256,807	15	1.9	10.4	4.7	-10	-1	-7
SAB	Closed	935	26	50	49	214,186	6,947	16,422	26,385	16	0.0	0.0	0.0	-15	-15	-15
SAB	Open	1,459	1,738	1,665	660	371,310	622,432	677,191	666,045	25	3.2	3.3	2.9	-12	-12	-12

APPENDIX 2

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

REPORTING FLAG: United States	YEAR: 2010
REPORTING AGENCY: National Marine Fishery Service	PERSON IN CHARGE: LeAnn Southward Hogan
ADDRESS: 1315 East-West Highway, Silver Spring MD 20910, USA	TEL: 001. 301.713.2347 FAX: 001. 301.713.1917 EMAIL: leann.southward-hogan@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	15% (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
	Transshipment Prohibited	Port inspection program not directly relevant to transshipment activities as transshipment is prohibited.	Bluefin Tuna Catch Document Bigeye Tuna--frozen Swordfish

Note			
------	--	--	--

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

NORTHERN ALBACORE	Initial quota /catch limit					Current catches				Balance				Adjusted quota/ catch limit					
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2006	2007	2008	2009	2006	2007	2008	2009	2010	2011
YEAR	607.0	607.0	538.0	538.0	527.0	399.6	532.1	248.1	187.9	446.5	378.8	593.5	484.6	846.1	910.5	672.5	672.5	658.8	

SOUTHERN ALBACORE	Initial quota /catch limit					Ref. years Ave 1992-96; 1998-2002	Current catches				Balance				Adjusted quota (only applicable in case of overharvest)				
	2006	2007	2008	2009	2010		2006	2007	2008	2009	2006	2007	2008	2009	2006	2007	2008	2009	2010
YEAR	100.0	100.0	100.0	100.0	100.0	0.2	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	N/A	N/A	N/A	N/A	N/A

NORTHERN SWORDFISH	Initial quota					Current catches *				Balance				Adjusted quota/ catch limit					
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2006	2007	2008	2009	2006	2007	2008	2009	2010	2011
YEAR	3907.0	3907.0	3907.0	3907.0	3907.0	2057.9	2682.8	2530.3	2838.0	7758.7	3194.5	3330.5	3022.0	10020.5	5860.5	5860.5	5860.5	5860.5	

SOUTHERN SWORDFISH	Initial quota					Current catches				Balance				Adjusted quota					
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2006	2007	2008	2009	2006	2007	2008	2009	2010	2011
YEAR	100.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	200.0	200.0	200.0	645.0	200.0	200.0	200.0	100.0	

BLUEFIN EAST	Initial quota /catch limit					Current catches				Balance				Adjusted quota (only applicable in case of overharvest)					
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2006	2007	2008	2009	2006	2007	2008	2009	2010	2011
YEAR																			

BLUEFIN WEST	Initial quota /catch limit					Current catches *				Balance				Adjusted quota/ catch limit					
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2006	2007	2008	2009	2006	2007	2008	2009	2010	2011
YEAR	1489.6 **	1190.0	1190.1	1034.9	977.4	614.8	848.7	919.9	1228.6	2206.0	936.2	865.3	323.8	2683.2	1785.2	1785.2	1552.4	1301.2	

BIGEYE	Initial quota					Reference years		Current catches				Balance				Adjusted quota/limit					
	2006	2007	2008	2009	2010	Average (91-92)	1999 (SCRS 2000)	2006	2007	2008	2009	2006	2007	2008	2009	2006	2007	2008	2009	2010	2011
YEAR						893.5	1261.0	991.4	527.3	488.5	516.5										

WHITE MARLIN	Initial landing limits					Reference years		Current landings				Balance			
	2006	2007	2008	2009	2010	1996	1999	2006	2007	2008	2009	2006	2007	2008	2009
YEAR						(PS+LL)	(PS+LL)	LL+PS	LL+PS	LL+PS	LL+PS	LL+PS	LL+PS	LL+PS	LL+PS
	250	250	250	250	250 ***			130	98	117	97 ***	120	152	133	153 *

BLUE MARLIN	Initial landing limits					Reference years		Current landings				Balance			
	2006	2007	2008	2009	2010	1996	1999	2006	2007	2008	2009	2006	2007	2008	2009
YEAR						(PS+LL)	(PS+LL)	LL+PS	LL+PS	LL+PS	LL+PS	LL+PS	LL+PS	LL+PS	LL+PS

* U.S. catches of WBFT and NSW0 include landings + dead discards

** In addition to the 1489.6 mt, the U.S. had a 67.7 mt dead discard allowance in 2006.

*** In numbers of fish landed, white marlin and blue marlin combined

REPORTING FORM FOR COMPLIANCE - SIZE LIMITS

PARTY/ENTITY/FISHING ENTITY: USA

Year: 2009

Please indicate in the shaded cells below the percentage of undersized fish in the total catch of each species

<i>Species</i>	<i>SWO</i>		<i>BFT</i>						
	<i>AT.N</i>	<i>AT.S</i>	<i>AT.E</i>	<i>AT.E</i>	<i>AT.E</i>	<i>Medi</i>	<i>Adriatic</i>	<i>Medi</i>	<i>AT.W</i>
<i>Recommendation Number</i>	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	0.70%								5.50%

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		2009	2010		
Limit		538	527		
Adjusted limit (A)		672.5	658.8		
Formula *					
Catch (B)		187.9			
Balance (A-B)		484.6			
Adjustment year**		2010			
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 2009 = 538 + (.25) (538)					
Adjusted limit for 2010 = 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: NSW0

		Units: t	
Year		2009	2010
Limit		3907	3907
Adjusted limit (A)		5860.5	5860.5
Formula *			
Catch (B)		2838	
Balance (A-B)		3022	
Adjustment year**		2010	
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 2009 = 3907 + (.5) (3907)			
Adjusted limit for 2010 = 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		
Limit		100	100		
Adjusted limit (A)		200	100		
Formula *					
Catch (B)		0			
Balance (A-B)		200			
Adjustment year**		2010			
Describe the rationale used in the application of overage / underage:					
* Adjusted limit for 2009 = initial limit for 2009 + underage from 2008					
2009 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 OVERRAGES/UNDERAGES

Flag: USA
Stock: WBFT

		Units: t	
Year		2009	2010
Limit		1034.9	977.4
Adjusted limit (A)		1552.4	1301.2
Formula *			
Catch (B)		1228.6	
Balance (A-B)		323.8	
Adjustment year**		2010	
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 2009 = 1034.9 + (.5)1034.9			
Adjusted limit for 2010 = 977.4 + 323.8			

* 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		2009	2010		
Limit		N/A	N/A		
Adjusted limit (A)					
Formula *					
Catch (B)		516.5			
Balance (A-B)					
Adjustment year**					
<p>Describe the rationale used in the application of overage / underage:</p> <p>Reference year catches are < 2100 mt, so catch limits do not apply.</p>					

* 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			
Balance (A-B)		153 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).

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

1 September 2009 – 31 August 2010

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	42
CASES REFERRED FOR PROSECUTION	25
CASES COMPLETED WITH WARNINGS ISSUED	17

VIOLATION

CASE NUMBER

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

1

General Prohibitions under the ATCA and MSFCMA to include:

Falsify information required on an application for permit

1

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

11

Falsify or fail to record, report, or maintain information required

5

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

1

Utilizing secondary gears 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

2

Fish for, catch, retain, or possess and Atlantic HMS that is less than its minimum size limit

6

Fail to comply with the restrictions on use of pelagic longline, bottom longline, gillnet, buoy gear, spear gun gear, or green-stick gear

1

Violate the Magnuson-Stevens Act, ATCA, or any regulation or permits issued under the Magnuson-Stevens Act or ATCA

1

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

2

Exceed a catch limit for BFT specified under a permit category

2

Specific Prohibitions for Billfish:

Unauthorized transfer of billfish at sea 1

Specific Prohibitions for Sharks:

Failure to maintain a shark in its proper form 5

Sale or purchase of shark fins that are disproportionate
to the weight of shark carcasses 1

Specific Prohibitions for Swordfish:

Fail to mark each buoy gear as required 1

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
Capacity Building Assistance to ICCAT Countries (2008-2010)

The United States has provided capacity building assistance to several ICCAT countries. Several of these activities are listed below.

1. Conducted a two-week joint United States – Ghana marine observer training in Tema, Ghana on board the U.S. Navy HSV2 Swift in March-April 2008, which provided 36 students and other guests (including the Director of Fisheries of Ghana) with training in identification and recording of fish and other marine species, collection of tissue samples, safety at sea, communications equipment, and vessel protocol.
2. Disseminated bycatch information, including the printing, lamination, and translation of the Sea Turtle and Marine Mammal Identification placards from English to French, funded the purchase of two types of turtle identification tags and two all-terrain vehicles to support ongoing turtle research in Ghana, and augmented the purchase of a generator and freezer for specimen storage and electrical backup for remote regions.
3. Provided support for attendance by 16 African regional observer program managers at the International Fisheries Observer Conference in July 2009, including oral presentations by several of those West African delegates. ICCAT countries included: Cote d'Ivoire, Egypt, Ghana, Libya, Morocco, Namibia, Senegal, Sierra Leone, South Africa, and Turkey.
4. Conducted a two week joint U.S. – Senegal Observer training in Dakar, Senegal in February 2009 for 40 current fisheries observers. The observer training provided a very broad suite of information on current United States and Senegal observer program policies including, international and national marine resource legislation, fisheries enforcement activities, IUU fishing, research surveys in West Africa and status of West African fish stocks. The course also included the identification and recording of marine species such as fish, marine mammals, sea turtles and sharks; the collection of tissue samples from these animals; safety at sea; practice getting in and out of the life raft; communication equipment and vessel protocol. The class also had the opportunity to tour the Dakar fish market, talk to several inshore fishermen at landing sites, and participate in a familiarization trip with the U.S. Navy around Dakar harbor. The United States also provided safety training, safety equipment and sampling supplies. A list of joint recommendations was drafted and sent forward to Senegal's Minister of Fisheries for consideration as steps to improve sustained management of marine resources.
5. Provided support for one staff person from Ghana Division of Wildlife to attend and give a presentation at the International Marine Mammal and Sea Turtle Stranding Network, April 2010.
6. International Monitoring, Control, and Surveillance Network: MCS Training in Ghana-March/April 2010 - The training was done under the auspices of the Africa Partnership Program (APS) of the U.S. Navy. Participating countries requested fisheries training and the International Monitoring, Control, and Surveillance (IMCS) Network was selected to provide the training. The training was provided to the staff of the Ghanaian Navy and the Fisheries Commission. During the three week course, the participants were trained in gear identification, measurement of gear for compliance with regulations, overview of the Ghana fisheries legislation, operational planning to combat IUU fishing, which included sea-going inspection, boarding and inspection of fishing vessels, shore-based monitoring of vessels, gear and catches for compliance with domestic and international regulations.
7. Conducted a 6 day training course in Sao Tome and Principe, Africa on "Beginning Fisheries Management" 9-17 June, 2010. The training was attended by approximately 30 people from the Department of Fisheries, the Sao Tome Coast Guard, MARPA (a local NGO), and Office of the Port Captain. The IMCS Network also conducted a training session during the workshop which consisted of classroom lectures on the theoretical and management aspects of MCS and the impacts of IUU of fisheries. Aspects of the use of technology to monitor fisheries and vessel were also provided in a classroom setting.
8. Created a West African Regional Observer Program Manual and supported presentations and work plans. The Regional Observer Manual will provide a comprehensive and harmonized approach to procedures for data collection throughout the region. (All countries from Senegal to Gabon). The manual is currently being translated into French.