

Congress of the United States
Washington, DC 20515

January 28, 2011

The Honorable Gary Locke
Secretary
U. S. Department of Commerce
1401 Constitution Ave., NW
Washington, DC 20230


Dear Secretary Locke:


Attached are a series of questions relating to the ongoing process to evaluate whether to divide the global population of loggerhead sea turtles into nine "distinct population segments" and to change the status of most of these from "threatened" to "endangered" under the Endangered Species Act. Each of these changes has the potential to profoundly impact our coastal communities, marine industries, and commercial and recreational fishing activities. As such, we have a strong interest in ensuring that any such changes are made in accordance with the best scientific and commercial information available, and in a manner consistent with the terms of the law.

The answers to these questions will aid us in our oversight of the National Oceanic and Atmospheric Administration (NOAA) in fulfilling its mission under the law. To facilitate that process, we are requesting a response by February 15, 2011.

Thank you for your prompt attention to this important matter.

Sincerely,


Congressman Walter B. Jones


Senator Scott Brown


Congressman Barney Frank


Congressman Thomas J. Rooney


Congressman Ron Paul


Congressman Mike Michaud

Jo Bonner
Congressman Jo Bonner

Robert J. Wittman
Congressman Robert J. Wittman

Bill Young
Congressman C.W. Bill Young

John Runyan
Congressman John Runyan

Timothy H. Bishop
Congressman Timothy H. Bishop

Frank A. LoBiondo
Congressman Frank A. LoBiondo

Heana Ros-Lehtinen
Congresswoman Heana Ros-Lehtinen

Gus M. Bilirakis
Congressman Gus M. Bilirakis

Blake Farenthold
Congressman Blake Farenthold

Questions for NMFS Office of Protected Species Regarding the Proposal to Change the Listing Status of Loggerhead Sea Turtles and Create Nine Distinct Population Segments

Note: Please provide a response to these questions by February 15, 2011. If some questions will take more time to answer, please send a reply to those that can be answered in this timeframe, and provide an estimate of when the answers to others will follow.

1. For each proposed distinct population segment (DPS), please provide a total population estimate derived from the proportion of nesting females to the total population.
2. If the annual survival rate, inclusive of the effects of anthropogenic mortality, of juveniles (after the first year) and that of adults is 0.85, and if the age of first reproduction is 30 years, does it follow mathematically that a population of 50,000 adult (*i.e.*, nesting) females implies a total female abundance (excluding young of the year) of approximately 3.3 million?
3. An expert serving on a NMFS scientific sea turtle committee has evaluated nesting beach data for the North Pacific loggerhead population through the fall of 2010 and expressly concluded that (i) “[n]esting beach abundance data for the North Pacific loggerhead population exhibits a long-term increasing trend” and (ii) “the North Pacific population of loggerhead sea turtles is neither small, nor is it declining.” Does NMFS dispute these conclusions? If so, please identify the specific data or information that contradicts these conclusions.
4.
 - A. Has NMFS conducted, sponsored, commissioned, or otherwise supported any in-water abundance surveys regarding the Northwest Atlantic loggerhead turtle population? For each study identified in the preceding sentence, please provide (a) a detailed description of the methodology used to conduct the study, (b) the date(s) of the study, (c) whether the study was peer reviewed, (d) the results of the study, and (e) whether the study was used by the BRT and, if not, why not.
 - B. Does NMFS plan to conduct, sponsor, commission, or otherwise support any additional in-water surveys of loggerhead turtle abundance in the proposed Northwest Atlantic DPS? If so, please (a) describe the date on which the study or studies will be completed, and (b) the methodology that will be, or is expected to be, used.
 - C. Is NMFS aware of any other in-water abundance survey of loggerhead turtles in the proposed Northwest Atlantic DPS done by another federal agency or a non-federal entity or person? If so, for each survey, please provide the information requested in (a)-(e) of Question 4A above.
 - D. Is NMFS aware of any in-water abundance survey for loggerhead turtles done by any person or entity with respect to any other proposed DPS? If so, please provide the information requested in (a)-(e) of Question 4A above.
5. Please provide the number of nests by state and “recovery unit” for each year 2000-2010. Please indicate if the current year’s data is preliminary and the source of the data.
6. It has only been over the past three decades that measures, such as turtle excluder devices in shrimp trawls and circle hooks for longline vessels, have been mandated to reduce the impact of commercial fisheries on sea turtles. Only over the past ten to fifteen years have such measures

been in widespread use, and significant improvements been made. At the same time, particularly since the Sustainable Fisheries Act of 1996 and the Reauthorization Act of 2006, fishing effort has been reduced to meet the law's conservation objectives. The 2009 Status Review and Loggerhead Sea Turtle Recovery Plan both explain the risks caused by fishing activities at great length, but do not characterize the trend in threats to loggerhead turtles over time.

A. Given that females do not mature until about 31 years of age, how long does NMFS estimate it will take for the reduction in loggerhead mortality and increased chances of survival resulting from these measures to be reflected in beach nest indices?

B. To quantify the trends in risks, please provide the following information for each of the years 1980 to 2010 (or the earliest year available):

- The number of active shrimp vessels operating in the South Atlantic and Gulf of Mexico regions each year and number of annual trips.
- The number of active pelagic longline vessels for species now under the highly migratory plan each year and the number of hooks fished annually.
- The annual total days-at-sea fished (*i.e.*, both open and access area days) by active dredge vessels in the Atlantic sea scallop fishery.
- The annual number of active South Atlantic and Gulf of Mexico snapper-grouper vessels.
- The number of gillnets employed in federal and state waters annually in the South Atlantic and Gulf of Mexico.

Also, please provide the following information:

- The date that turtle excluder devices were first mandated for shrimp vessels, and every significant expansion or refinement in required use, along with an estimate of the reduction in lethal takes projected and/or achieved for each new requirement.
- The same information for the use of circle hooks in the Atlantic and Pacific pelagic longline fisheries, as well as any other requirement designed to reduce lethal takes of loggerhead sea turtles (*e.g.*, time/area closures, bait, etc.) for any type of longline vessel.
- The same for the required use of chain mats in the Atlantic sea scallop fishery.
- The same for state and federal measures for gillnet and poundnet fisheries.
- For all fisheries operating under Endangered Species Act Section 7 biological opinions and incidental take statements, please provide the year and number of highest estimated lethal takes and the most current estimate of lethal takes.

7. NMFS and FWS propose to divide the global population of loggerhead turtles into nine "distinct population segments." If this proposal is adopted, each DPS will be a separate "species" for purposes of Section 7 of the Endangered Species Act.

A. In the last 10 years, how many consultations have been undertaken pursuant to section 7 of the Endangered Species Act regarding the impact of a proposed activity on loggerhead turtles? Please identify each such consultation.

B. For each such consultation, what was the time, manpower, and cost associated with completing the consultation?

C. What is the average time, manpower, and cost associated with completing a Section 7 consultation under the Endangered Species Act?

D. If the proposal to create nine loggerhead DPSs is adopted, which of the consultations identified in (A) above would have to be redone?

E. If the proposal to create nine loggerhead DPSs is adopted, what additional agency actions now occurring or reasonably foreseeable would be subject to Section 7 consultation under the Endangered Species Act?

8. Could the methodology used in the Proposed Rule also be employed to seek the designation of new DPSs by nesting beach, recovery unit, or other smaller unit?

9. The National Academy of Sciences analysis of the 2009 Status Review's use of scientific information stated, "Inadequate information is available for population assessments because the data have not been collected, or if they have been collected, they have not been analyzed or made accessible in a manner that allows them to be useful." Given this conclusion, provide a list of data that have been collected and not analyzed.

10. The Services also did not use 2008 nesting data for the proposed North Pacific DPS. Is the data from 2008 through the present available? If so, please provide it.

11. For the Indian Ocean basin, 2000 was the last year of data used to assess the status of the loggerhead populations. Is the data from 2001 through the present available? If so, please provide it.

12. To estimate anthropogenic mortality in the Services' model, panels of experts selected by the Services were asked to rate each source of mortality as high, medium, low, or very low. Each category was then assigned a mortality rate that was used in the model. Please list (a) experts consulted with respect to each DPS; (b) each experts' area of expertise; (c) provide copies of the standards the experts were provided to ensure uniformity in mortality rates assigned to each threat level (high, medium, low, or very low); and (d) provide copies of the guidelines or guidance provided for translating qualitative estimates of threats into quantitative rates, including the methodology used.

13. The number of anthropogenic mortalities developed by assigning actual mortality numbers to the high, medium, low, or very low threat is between 8 and 31 times higher than the number of actual mortalities detailed in the BRT Report. For the proposed western North Atlantic DPS, please provide a comparison of the anthropogenic mortality rates resulting from the threats matrix analysis with estimated rates derived from other empirical sources referenced in the report. Where possible, please show total mortality rates and the rates by particular threat.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
1315 East-West Highway
Silver Spring, Maryland 20910
THE DIRECTOR

JUN 27 2011

The Honorable Walter B. Jones
U.S. House of Representatives
Washington, DC 20515

Dear Representative Jones:

This is a follow-up response to your January 28, 2011, letter to Secretary Gary Locke requesting information related to the National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (collectively, the Services) proposed rule to list nine Distinct Population Segments (DPS) of loggerhead sea turtles as endangered or threatened. We initially responded by letter dated April 8, 2011.

We are hereby providing responses to questions 3, 5, 6A, 6B (1-10), 8, 9, 10, and 11 below. We continue to compile and review information in order to prepare responses to the remaining questions and will provide further responses as soon as possible.

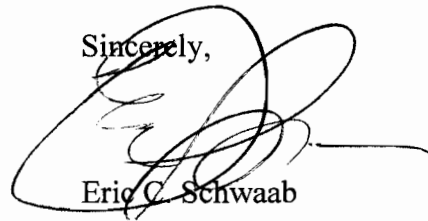
- Question 3: The proposed rule to list nine Distinct Population Segments of loggerhead sea turtles found that nesting numbers for the proposed North Pacific Ocean DPS had gradually increased in recent years, but remained small, and historical evidence indicated a substantial decline over the last half of the 20th century. We are currently evaluating comments on the proposed DPS designations as part of a final rulemaking.
- Question 5: The response regarding loggerhead nesting data can be found in Attachment 1. These data are collected and maintained by the states and they have provided the data contained herein.
- Question 6A: NMFS cannot predict how long it will take for conservation efforts to be reflected in nesting beach population indices. Conservation efforts on nesting beaches and in the marine environment have varied widely across the range of the species and include efforts that have been implemented for decades (e.g., the prohibition on take of eggs and females at the primary nesting beaches in the United States since the 1970s), some very recent efforts (e.g., restrictions on gillnet fishing in some U.S. waters), and efforts that have yet to be fully addressed (e.g., bycatch of turtles in skimmer shrimp trawls in the southeast United States, bycatch of loggerheads on the high seas).
- Question 6B (1-10): You requested information on 10 bulleted elements related to effort in several fisheries, current regulations in those fisheries, and Section 7 incidental take statements for those fisheries. We have provided this information in Attachment 2, which has been subdivided to address each bulleted element separately.
- Question 8: The Services' joint agency "Policy Regarding the Recognition of Distinct Vertebrate Populations (DPS)" provides the standards for determining when a species constitutes a DPS and includes guidance for evaluating discreteness and significance (see 61 FR 4722 (February 6, 1996)). We are currently evaluating comments on the proposed DPS designations as part of a final rulemaking.



- Question 9: We are unaware of what data the National Research Council's 2010 report "Assessment of Sea Turtle Status and Trends" intended to characterize as "data that have been collected but not analyzed."
- Question 10: The Services used all of the North Pacific proposed DPS nesting data available at the time of the Proposed Rule (March 16, 2010). At that time only estimated numbers for 2009 were available. We are working with our colleagues in Japan to obtain the complete data for 2009 as well as data for 2010 in order to consider it prior to making a final determination. We will provide these data once we have the complete data set.
- Question 11: The Services used the best available data to develop the Proposed Listing Rule, including data for the Indian Ocean Basin. We are working with our colleagues in the Indian Ocean seeking any new information as we progress toward a final determination. We will provide these data once we have the complete data set.

I appreciate your interest in the conservation and recovery of endangered and threatened sea turtles. If you have any questions, please contact John Gray, Director of NOAA's Office of Legislative Affairs, at (202) 482-4981.

Sincerely,

A handwritten signature in black ink, appearing to read "Eric C. Schwaab", is written over the typed name. The signature is stylized and somewhat illegible due to its cursive nature.

Eric C. Schwaab

Attachment 1

REPORTED LOGGERHEAD NESTS IN NW ATLANTIC DPS - Caribbean Recovery Unit

Year	Country		Other*	Tamaulipas	Veracruz	Tabasco	Mexico, by State			
	Cuba	N/A					Campeche	Yucatán	Quintana Roc	all Mexico
2000	N/A	N/A		N/A	3		0	1824	1827	
2001	149	N/A		N/A	0	no	0	2141	2141	
2002	70	N/A		N/A	0	nests	0	1487	1487	
2003	115	N/A		N/A	0	reported	0	1572	1572	
2004	143	N/A		N/A	1	by	0	1172	1173	
2005	204	N/A		N/A	0	public	0	1284	1284	
2006	289	N/A		N/A	0	since	0	1423	1423	
2007	287	0		0	0	1960's	0	1535	1535	
2008	359	14		14	3		0	2137	2154	
2009	584	16		16	0		0	1994	2010	
2010	473	7		7	0		0	2328	2335	

N/A = not available

Source of Information for Each Country:

MEXICO: J. ZURITA and A. ARENAS: COMITÉ ESTATAL DE QUINTANA ROO PARA LA CONSERVACIÓN DE LAS TORTUGAS MARINAS and L. SARTI: COMISION NACIONAL DE ÁREAS NATURALES PRC (Julio Zurita, personal communications, March 1-2, 2011) (Laura Sarti, personal communications, March 3, 2011) see cell comments

Cuba: Cuba Fisheries Research Centre (Felix Moncada, personal communication, February 18, 2011)

*Other: Dow, Wendy, Karen Eckert, Michael Palmer and Philip Kramer. 2007. An Atlas of Sea Turtle Nesting Habitat for the Wider Caribbean Region. WIDECASST and The Nature Conservancy. available at <http://www.widecast.org/Resources/Pubs.htr> Also, details for Colombia provided by Widecast (W. Dow, pers comm, March 3, 2011)

This report identifies 17 other (other than Mexico and Cuba) entities throughout the Caribbean region that have some loggerhead nesting. The report identifies crawls, not nests, with the number of sites distributed thus: 1 site reporting 100-500 crawls annually (Cay Sal Bank, Bahamas), 24 sites reporting 25-100 crawls, 102 sites reporting < 25 crawls/year, and 60 reporting nesting activity at an unknown level (likely insignificant). Addison and Morford (1996) estimated nesting on Cay Sal Bank, Bahamas, at approximately 500 nests, based on a 1995 study. Addison, D.S. and B. Morford. 1996. Sea turtle nesting activity on Cay Sal Bank, Bahamas. Bahamas Journal of Science 3(3):31-36.

REPORTED LOGGERHEAD NESTS IN NW ATLANTIC DPS - Northern US Recovery Unit

Year	State					nesting
	Georgia	South Carolina*	North Carolina	Virginia	Maryland	
2000	1074	1990	754	1	0	north of Maryland
2001	851	1568	655	2	0	is very rare
2002	1034	2010	693	8	0	
2003	1504	2506	862	6	0	
2004	367	734	333	1	0	
2005	1200	2351	645	8	0	
2006	1398	2496	763	8	0	
2007	689	1527	535	2	0	
2008	1649	2827	890	8	0	
2009	998	2003	614	5	0	
2010	1760	2721	848	9	1	

Source of Information for Each State:

Georgia: Georgia Department of Natural Resources (Mark Dodd, personal communication, February 25, 2011)

South Carolina: South Carolina Department of Natural Resources (DuBose Griffin, personal communication, February 28, 2011)
 *ALL SOUTH CAROLINA DATA IS A MINIMUM NEST GROUND COUNT FROM 159.9 KM OF THE 303 KM COASTLINE

North Carolina: NC Wildlife Resources Commission (Matthew Godfrey, personal communication, February 24, 2011)

Virginia: Va. Department of Game and Inland Fisheries (Ruth Boettcher, personal communication, February 25, 2011)

Maryland: National Aquarium (Jennifer Dittmar, personal communication, March 1, 2011)

REPORTED LOGGERHEAD NESTS IN NW ATLANTIC DPS - Peninsular Florida Recovery Unit

Year	State
2000	Florida 83,036
2001	68,610
2002	62,190
2003	62,408
2004	46,259
2005	51,831
2006	49,141
2007	44,512
2008	60,514
2009	51,458
2010	72,855

Source of Information:

Florida: FWC/FWRI Statewide Nesting Beach Survey Program Database as of 14 February 2011 (Anne Meylan,

REPORTED LOGGERHEAD NESTS IN NW ATLANTIC DPS - Dry Tortugas Recovery Unit

Year	State
2000	Florida 242
2001	213
2002	26 Dry Tortugas not surveyed
2003	208
2004	159
2005	16 Dry Tortugas not surveyed
2006	26 Dry Tortugas not surveyed
2007	21 Dry Tortugas not surveyed
2008	25 Dry Tortugas not surveyed
2009	132
2010	197

Source of Information:

Florida: FWC/FWRI Statewide Nesting Beach Survey Program Database as of 14 February 2011 (Anne Meylan,

Note: The Dry Tortugas recovery unit is defined as nesting areas west of Key West, FL

REPORTED LOGGERHEAD NESTS IN NW ATLANTIC DPS - Northern Gulf of Mexico Recovery Unit

Year	State			
	Florida	Alabama*	other	Texas
2000	1,118	N/A	there is	5
2001	857	67	very little	3
2002	691	59	nesting in	1
2003	832	63	Mississippi	3
2004	752	53	and	1
2005	620	37	Louisiana	3
2006	623	45		2
2007	551	54		6
2008	919	78		3
2009	784	64		0
2010	642	41		9

N/A = not available

Source of Information for Each State:

Florida: FWC/FWRI Statewide Nesting Beach Survey Program Database as of 14 February 2011 (Anne Meylan,

Alabama: USFWS (Dianne Ingram, personal communication, February 25, 2011)
see cell comments

Texas: Donna J. Shaver, NPS (personal communication, February 20, 2011)
Nests confirmed in Texas, located during patrols and occasionally due to reports from the public.
Most nests confirmed in Texas were at Padre Island National Seashore

Attachment 2

6B(1). The number of active shrimp vessels operating in the South Atlantic and Gulf of Mexico regions each year and number of annual trips.

Table 6B(1)a: Number of active shrimp vessels in the Gulf of Mexico and South Atlantic by year. The source for the Gulf of Mexico is the Gulf Shrimp System. The source for the South Atlantic is the South Atlantic Shrimp System, trip ticket data from the Atlantic Coastal Cooperative Statistics Program, and Vessel Operating Units Survey. The South Atlantic vessels reported are fishing for shrimp as food (primarily using trawls) in both state and Federal waters; it excludes vessels fishing for shrimp as bait. In the Gulf of Mexico, the vessels reported are only fishing in the Federal waters and only fishing for shrimp as food, not as shrimp for bait.

YEAR	Gulf of Mexico	South Atlantic
1980	*	1,936
1981	*	1,636
1982	*	1,798
1983	*	1,790
1984	3,572	1,476
1985	3,899	1,478
1986	3,791	1,566
1987	4,200	1,464
1988	4,064	1,482
1989	3,906	1,432
1990	3,748	1,271
1991	3,719	1,328
1992	3,578	1,268
1993	3,621	1,200
1994	3,867	1,355
1995	3,815	1,351
1996	3,788	1,363
1997	3,667	1,508
1998	3,605	1,474
1999	3,492	1,855
2000	3,361	1,987
2001	3,455	1,685
2002	3,369	1,240

2003	3,108	1,319
2004	2,903	1,077
2005	2,533	841
2006	2,211	708
2007	2,135	830
2008	1,686	888
2009	1,855	830
2010**	1,671	288

* Data not available.

** For the South Atlantic data was missing for SC and NC for 2010, so the estimate for 2010 is low.

Table 6B(1)b: Number of shrimp trips in the Gulf of Mexico and South Atlantic by year. The source for the Gulf of Mexico is the Gulf Shrimp System. The source for the South Atlantic is the South Atlantic Shrimp System and trip ticket data from the Atlantic Coastal Cooperative Statistics Program. The South Atlantic vessels reported are fishing for shrimp as food (primarily using trawls) in both state and Federal waters; it excludes vessels fishing for shrimp as bait. In the Gulf of Mexico, the vessels reported are only fishing in the Federal waters and only fishing for shrimp as food, not as shrimp for bait.

YEAR	Gulf of Mexico	South Atlantic
1980	*	59,329
1981	*	43,298
1982	*	67,454
1983	*	58,912
1984	371,520	41,251
1985	291,014	39,567
1986	392,480	43,740
1987	418,702	40,889
1988	380,327	45,226
1989	279,846	51,288
1990	303,198	38,189
1991	275,861	54,080
1992	289,768	41,430
1993	260,649	30,904
1994	274,472	32,300

1995	249,316	34,581
1996	206,457	27,395
1997	224,632	33,414
1998	210,656	27,877
1999	201,863	35,411
2000	229,418	36,680
2001	211,771	21,780
2002	167,433	25,320
2003	148,273	21,247
2004	127,964	17,813
2005	97,900	13,305
2006	86,094	16,860
2007	83,332	14,495
2008	59,384	13,763
2009	74,400	13,464
2010**	43,375	4,461

* Data not available.

** For the South Atlantic data was missing for FL for 1980, NC for 1993, NC for 2010, and SC for 2010. Thus, estimates for those years are low.

Table 6B(2)a: Number of pelagic longline vessels with landings of species now under highly migratory species plans and the number of hooks set by year. The data source is the Pelagic Longline Logbook Program.

YEAR	Vessel_Count	Total_Hooks_Set
1986	141	757,304
1987	274	6,558,426
1988	360	7,006,758
1989	428	7,927,401
1990	388	7,500,095
1991	273	7,268,943
1992	295	8,366,421
1993	340	8,892,592
1994	318	9,198,889
1995	326	10,184,584
1996	275	10,397,152
1997	264	9,680,345
1998	217	8,031,333
1999	200	7,893,597
2000	180	8,021,874
2001	161	7,742,247
2002	149	7,229,628
2003	128	7,120,383
2004	117	7,325,950
2005	110	5,922,566
2006	103	5,694,736
2007	119	6,517,048
2008	121	6,556,457
2009	115	6,979,697
2010*	79	1,645,997

*2010 data are incomplete.

6B(3) The annual total days-at-sea fished (i.e., both open and access area days) by active dredge vessels in the Atlantic sea scallop fishery.

Year	TotDayFished	FracDredge	DredgeDaysFished
1980	15888	0.974	15476
1981	14863	0.986	14649
1982	15490	0.982	15217
1983	18350	0.985	18082
1984	21409	0.986	21119
1985	19764	0.986	19496
1986	19120	0.954	18232
1987	23691	0.915	21676
1988	27179	0.929	25254
1989	31287	0.962	30084
1990	34943	0.968	33833
1991	42047	0.943	39668
1992	41408	0.959	39701
1993	37049	0.943	34949
1994	25404	0.899	22837
1995	22035	0.898	19796
1996	26015	0.915	23799
1997	23296	0.935	21783
1998	20691	0.893	18485
1999	15166	0.904	13715
2000	15949	0.913	14554
2001	15593	0.922	14373
2002	18652	0.938	17487
2003	18324	0.951	17419
2004	18845	0.948	17870
2005	16568	0.953	15795
2006	20610	0.968	19956
2007	19355	0.984	19051
2008	16826	0.975	16411
2009	17531	0.976	17111

Table 6B(4): Number of vessels landing snapper/grouper from the Gulf of Mexico or South Atlantic as reported on coastal logbooks by year. Vessels are included in yearly totals if any snapper or grouper landings were reported (1+ pounds) during the year.

YEAR	REGION	
	Gulf of Mexico	South Atlantic**
1990	323	*
1991	610	8
1992	712	358
1993	1,332	873
1994	1,379	928
1995	1,293	977
1996	1,131	1,079
1997	1,164	1,234
1998	1,130	1,192
1999	1,113	1,018
2000	1,131	948
2001	1,060	879
2002	1,058	848
2003	1,022	778
2004	1,009	744
2005	947	699
2006	835	696
2007	702	711
2008	673	709
2009	691	712
2010***	545	566

* Data not available.

**Reporting not required in the South Atlantic prior to 1992. Only 20% of Florida vessels were required to report prior to 1993.

***2010 data are incomplete.

Table 6B(5)a: Number of trips reporting gillnet as gear from vessels required to report to the Southeast Coastal Logbook Program and Pelagic Logbook Program

YEAR	REGION	
	Gulf of Mexico	South Atlantic
1990	C	*
1991	C	C
1992	C	21
1993	C	208
1994	26	128
1995	C	137
1996	60	439
1997	66	511
1998	113	2,340
1999	222	1,877
2000	156	1,956
2001	177	1,874
2002	99	1,875
2003	76	1,560
2004	60	1,548
2005	70	1,813
2006	94	2,128
2007	87	2,190
2008	93	1,838
2009	182	2,113
2010**	55	1,450

* Data not available.

“C” means data are confidential.

**2010 data are incomplete.

Note: The data as reported do not allow the NMFS to separate federal and state waters. These data only represents vessels that are required to report trips under federal permit requirements. These do not include vessels without federal permits fishing in state waters. Data available from North Carolina and Alabama are presented in the next table.

Table 6B(5)b: Gillnet effort data currently available from North Carolina and Alabama.

YEAR	NC		AL	
	Vessels	Trips	Gill Net Licenses	Trips
1989	*	*	534	*
1990	*	*	545	*
1991	*	*	579	*
1992	*	*	556	*
1993	*	*	542	*
1994	2,689	50,148	582	*
1995	2,841	58,271	638	*
1996	2,727	54,284	206	*
1997	2,676	60,142	199	*
1998	2,347	52,795	172	*
1999	2,690	52,762	147	*
2000	2,576	53,790	145	*
2001	2,377	51,449	156	4,090
2002	2,095	46,511	153	5,728
2003	2,055	44,280	139	5,690
2004	1,940	41,084	130	5,149
2005	1,849	39,534	126	4,942
2006	1,687	39,969	113	4,497
2007	1,701	41,952	119	4,943
2008	1,651	40,815	141	4,890
2009	1,665	40,758	128	4,579
2010**	1,545	34,519	86	2,183

* Data not available.

** 2010 data are incomplete.

These data could not be separated by state and federal waters and may include data in the previous table. NC could provide number of vessels fishing gillnets for a given year; while AL could only provide number of gillnet licenses issued for a given year. Data from other states may be available at a later date.

6B(6-9) Regulations

Fishery	Management Measure	FR Citation/ Published Date/ Effective Date	Description of Action	Reduction in Lethal Takes Projected
Shrimp Fishery	Voluntary use of TEDs	1981-1983	NMFS encourages voluntary use of TEDs in the shrimp fishery.	Not known
Shrimp Fishery	NMFS continues to encourage voluntary use of TEDs	1983-1986	NMFS operates a formal program which builds and delivers TEDs to shrimp fishermen who agree to use them voluntarily in commercial shrimping operations. The program proves ineffective.	By 1985, less than 1 percent of the shrimp fleet is using TEDs.
Shrimp Fishery	Final Rule to Require TEDs	June 29, 1987 52 FR 24244	NMFS publishes final regulations implementing TED requirements (52 FR 24244). Many of the provisions of the rule phase in over a 20-month period. Ultimately, TEDs are required seasonally aboard all shrimp trawlers over 25 feet in length in offshore waters of the Gulf and South Atlantic, except for southwest Florida and the Canaveral area, where they are required year-round. Shrimp trawlers less than 25 feet in length and all trawlers in inshore waters are required to limit their tow-times to a maximum of 90	The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, approved TEDs must demonstrate a reduction in the catch of wild turtles, compared to a net with no TED, of greater than 96 percent. From October 1987 - May 1990 a chaotic array of lawsuits, injunctions, suspensions of law enforcement, legislative actions by several states, legislation by Congress, and temporary rules issued by NMFS followed the initial effective date of the 1987 regulations. The result was a patchwork of times and areas where TEDs were and were not required/enforced. Except in limited times in states that separately required TEDs (South Carolina, Georgia, and Florida), TED use

Shrimp Fishery	Final Rule	December 4, 1992 57 FR 57348; 57 FR 18446	minutes seasonally, except in southwest Florida and the Canaveral area, where tow-times are required year-round.	was probably very low throughout the region.
<p>NMFS publishes a final rule (57 FR 57348) to strengthen the effectiveness and enforceability (57 FR 18446) of TEDs. The rule required essentially all shrimp trawlers in the southeast U.S. to use TEDs year-round, even in inshore waters, with only limited exemptions. The rule includes a phase-in period for inshore vessels with small nets until December 1, 1994. This rule also modified resuscitation measures that fishermen must follow for incidentally caught turtles that come aboard in a comatose condition, and fishermen are allowed to hold turtles on board under certain conditions, while they are being resuscitated. Additionally, a framework and procedures are established whereby the Assistant Administrator may impose additional restrictions on shrimping, or any other fishing activity, if the incidental taking of sea turtles in the fishery would violate an incidental take statement, biological opinion, or incidental take permit or may be likely to jeopardize the continued existence of a listed species.</p> <p>On September 8, 1992, NMFS had</p> <p>The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, the establishment of a more consistent TED requirement was expected to result in a very substantial decrease in shrimp trawl-related sea turtle (including loggerhead) mortality, especially over time as experience and growing acceptance would increase the effectiveness.</p>				

			published an interim final rule that implemented some of the above provisions until the publication of the final rule.	
Shrimp Fishery	Interim Final Rule	June 29, 1994; 59 FR 33447	NMFS issued an interim final rule (59 FR 33447) to require bottom-opening hard TEDs to be modified by attaching floats to the TEDs to keep them from riding hard on the sea floor. Major increases in sea turtle strandings were observed that spring in Texas, and the absence of floats on bottom-opening TEDs was one contributing factor.	The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, the requirement of floats on bottom-opening TEDs was expected to reduce TED failures, and thus reduce sea turtle captures and mortalities.
Shrimp Fishery	Final Rule/Technical Amendments	March 25, 1995; 60 FR 15512	NMFS issued a final rule/technical amendments (60 FR 15512) to finalize the float requirement and implement a variety of other minor changes to TED technical specifications. One of these specified that the width of the cut for a hard TEDs escape opening must extend at least from the outermost bar of the grid to the opposite outermost bar of the grid.	The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, the requirement of floats on bottom-opening TEDs, as well as the other minor technical modifications, were expected to reduce TED failures, and thus reduce sea turtle captures and mortalities.
Shrimp Fishery	Temporary Rule – Gear Restrictions	60 FR 21741, May 3, 1995; 60 FR 26691, May 18, 1995; 60 FR 31696, June 16, 1995; 60 FR 32121, June 20, 1995; 60 FR 42809, August 17, 1995; 60	In November 1994, NMFS issued a jeopardy biological opinion for Kemp’s ridley sea turtles. The reasonable and prudent alternative to prescribed to prevent jeopardy specified measures that NMFS must	The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, the implementation of the ERP measures through the four temporary rules, as well as the training and increase in TED development programs were expected to have had a beneficial impact on

	<p>FR 43106, August 18, 1995; 60 FR 44780, August 29, 1995</p>	<p>take to improve TED regulation compliance: (1) Develop an emergency response plan (ERP) to address increases in sea turtle strandings or TEDs noncompliance; (2) Deploy a specially trained law enforcement team to respond to high strandings, TEDs noncompliance, or intensive shrimping effort in areas of expected sea turtle abundance; (3) Develop and implement a TED enforcement training program for U.S. Coast Guard boarding parties; (4) Amplify domestic TED technology programs; (5) Develop a permitting or registration system for offshore shrimpers that would allow sanctioning the permit for TED violations and failing to pay assessed fines. NMFS must also re-examine the effectiveness of bottom-shooting hard TEDs and soft TEDs and mitigate the impacts of intensive nearshore shrimping effort through the identification of areas requiring special turtle management. NMFS ultimately implements all the elements of the RPA, with the exception of the shrimper permitting/registration system. NMFS implements gear restrictions based on the ERP through temporary rulemaking four times during 1995: twice in the Gulf of Mexico and twice in the Atlantic (60 FR 21741, May 3, 1995; 60 FR 26691, May 18, 1995; 60 FR 31696, June 16, 1995; 60 FR 32121, June</p>	<p>sea turtle take and mortality reduction.</p>
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Shrimp Fishery	Final Rule	September 14, 1995; 60 FR 47713	<p>20, 1995; 60 FR 42809, August 17, 1995; 60 FR 43106, August 18, 1995; 60 FR 44780, August 29, 1995).</p> <p>NMFS issued a final rule (60 FR 47713) establishing the leatherback conservation zone and leatherback contingency plan in the Atlantic. This plan requires the use of larger opening “leatherback TEDs” within the zone during periods when leatherback migrations through the area are historically high, and/or when high leatherback sightings occur in the area.</p>	<p>The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. This rule is specifically for leatherbacks and not loggerheads. However, it is likely that it had some small benefit for larger loggerheads, as later research showed that the standard TEDs were not large enough to easily release the larger loggerheads.</p>
Shrimp Fishery	Final Rule	January 24, 1996	<p>NMFS finalized requirements for flounder trawlers to use TEDs in the “summer flounder fishery-sea turtle protection area” which includes the offshore waters between 37°05’ N. lat. (Cape Charles, VA) and the NC/SC border. That final rule also provides for a seasonal exemption from the TED requirement north of Oregon Inlet, NC, from January 15 through March 15, annually. These requirements were initially effective November 15, 1992, through December 15, 1992 (57 FR 53603, November 12, 1992), were extended from December 16, 1992, through January 14, 1993 (57 FR 60135, December 18, 1992), were modified and extended from January 7, 1993, through February 8, 1993 (58 FR 4088, January 13, 1993), and were</p>	<p>The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, TEDs installed, utilized, and maintained correctly are expected to be 97 percent efficient at releasing sea turtles. The percent of the sea turtles that are captured which ultimately die, either in the trawl or post release, is not known. Additionally, some loggerheads are two large to easily pass through the minimum TED openings required for the summer flounder trawl fishery, and the summer flounder trawls were not included in the February 21, 2003, rule (68 FR 8456) that required larger minimum openings. Therefore, it can be expected that even with perfect compliance, summer flounder TEDs do not operate with 97 percent effectiveness for larger loggerhead sea turtles.</p>

Shrimp Fishery	Final Rule	December 19, 1996; 61 FR 66933	<p>extended from February 10, 1993, through April 10, 1993 (58 FR 5884, February 16, 1993). On September 20, 1993, an interim final rule was published requiring year-round TED-use by participants in the bottom trawl fishery for summer flounder in the summer flounder fishery-sea turtle protection area defined above (58 FR 48797, September 20, 1993).</p>	
Shrimp Fishery	Interim Final Rule	May 14, 2001; 66 FR 24287	<p>NMFS issued a final rule (61 FR 66933) requiring that TEDs be installed in try nets with a headrope length greater than 12 ft (3.6 m) and a footrope length greater than 15 ft (4.6 m); removing the approval of the Morrison, Parrish, Andrews, and Taylor soft TEDs; establishing Shrimp Fishery Sea Turtle Conservation Areas (SFSTCAs); and within the SFSTCAs, imposing the new TED requirement for try nets, removing the approval of soft TEDs, and modifying the requirements for bottom-opening hard TEDs.</p>	<p>The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, the requirement of TEDs in large trynets was expected to limit the practice of shrimpers using large trynets for extended periods of time, essentially as an extra net for catching shrimp, without TEDs, which was thought to be a source of sea turtle drownings. Removal of the soft TED from the list of allowable TEDs was based upon ineffective use and difficulty of maintaining those TEDs in a manner where they remain effective, as well as difficulties for enforcement officials to properly measure their required specifications when installed and in service.</p>
Shrimp Fishery	Interim Final Rule	May 14, 2001; 66 FR 24287	<p>NMFS issued an interim final rule (66 FR 24287) approving the use of an additional style of single-grid hard TED – the double cover flap TED.</p>	<p>The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, approving this new TED design allowed for greater flexibility and choice for the shrimpers. This TED design has become the preferred design for most shrimpers in the U.S. as it is designed</p>

Shrimp Fishery	Final Rule	February 21, 2003 (68 FR 8456)	<p>NMFS published a final rule amending sea turtle conservation measures to reduce sea turtle mortality in the shrimp trawl fisheries (68 FR 8456). Specifically, it requires the use of larger TEDs to allow the escapement of leatherback and large loggerhead and green sea turtles. The effective date is April 15, 2003, for the South Atlantic, and August 21, 2003, in the Gulf of Mexico. This rule also effectively removes the leatherback contingency zone established in September 1995 (60 FR 47713), as the new TED requirements include the ability to exclude leatherback sea turtles.</p>	<p>to close the flaps more quickly and to eject trash more quickly without the trash hanging up in the TED flaps and causing the loss of shrimp. Although not more effective for sea turtle release per se, the benefits to the shrimpers was expected to mean less frustration and greater acceptance and use by the shrimpers, thus conveying a benefit to sea turtles as well.</p> <p>The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, based upon the size data of loggerhead sea turtles found stranded, and the expected 97 percent release rate of properly installed TEDs, NMFS estimated that a 94 percent reduction in loggerhead shrimp trawl mortality would occur compared to shrimp trawl mortality levels prior to the larger opening being required.</p>
Pelagic longline fishery	Emergency regulations	October 13, 2000 65 FR 60889	<p>NMFS issued emergency regulations (65 FR 60889) to implement a time and area closure for pelagic longline fishing, within the Northeast Distant Statistical Sampling (NED). Additionally, this rule requires all pelagic longline vessels that have been issued Federal highly migratory species (HMS) fishing permits and that fish in the Atlantic Ocean, including the Gulf of Mexico and Caribbean Sea, to carry on board dipnets and line</p>	<p>The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, NMFS expected the release requirements to significantly reduce post-release mortality, and the closure of the NED fishing grounds, an area of high known turtle takes, to significantly reduce total takes and mortalities.</p>

Pelagic longline fishery	Interim Final Rule	March 30, 2001 66 FR 17370	<p>clippers meeting NMFS design and performance standards. These regulations are necessary to reduce the bycatch and bycatch mortality of loggerhead and leatherback sea turtles by the Atlantic pelagic longline fishery. This emergency rule was effective October 10, 2000, through April 9, 2001.</p> <p>To prevent a lapse in sea turtle post-release mortality reduction measures, NOAA Fisheries published an interim final rule (66 FR 17370) which continued the requirement to possess and use dipnets and line-cutters for all vessels in the HMS pelagic longline fishery.</p>	The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, NMFS expected the release requirements to significantly reduce post-release mortality.
Pelagic longline fishery	Emergency Rule	July 13, 2001 66 FR 36711	<p>NMFS published an emergency rule (66 FR 36711) to implement several requirements from a June 14, 2001, biological opinion. Regulations implemented by this emergency rule included a closure of the NED Area to HMS pelagic longline fishing, restrictions regarding gear deployment, and a requirement to post the safe handling procedures inside the wheelhouse. These requirements, effective through January 9, 2002, were extended to July 8, 2002 (66 FR 64378, December 13, 2001). On January 14, 2002, NMFS published an amendment to the emergency rule extension clarifying the effective dates (67 FR 1688).</p>	The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, NMFS expected the release requirements to significantly reduce post-release mortality.
Pelagic longline fishery	Final Rule	July 9, 2001 67 FR 45393	<p>NMFS published the final rule (67 FR 45393) implementing all the measures identified in the reasonable and prudent alternatives of the June 14, 2001, biological</p>	The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, NMFS expected the release requirements to significantly reduce

			<p>opinion to reduce the incidental catch and post-release mortality of sea turtles and other protected species in HMS fisheries. The rule implemented the closure of the NED statistical reporting area, enacted gangion length requirements, prohibited vessels from having hooks on board other than corrodible, nonstainless steel hooks, and required all HMS bottom and pelagic longline vessels to post sea turtle handling and release guidelines in the wheelhouse. Ultimately, NMFS did not implement the gangion placement requirement because it was found to result in an unchanged number of interactions with loggerhead sea turtles and an apparent increase in interactions with leatherback sea turtles.</p>	<p>post-release mortality, corrodible hook requirements to reduce mortality of turtles released with embedded hooks, and gangion length requirements to reduce drowning.</p>
<p>Pelagic longline fishery</p>	<p>Final Rule</p>	<p>December 24, 2003. Effective February 1, 2004, the final rule (68 FR 74746)</p>	<p>Effective February 1, 2004, the final rule (68 FR 74746) implementing Amendment 1 to the Fishery Management Plan for Atlantic Tunas, Swordfish, and Shark required: Long-handled line cutter and dipnet to be possessed and utilized onboard; corrodible, non-stainless steel hooks; immediately release the animal, retrieve the BLL gear, and move at least 1 nmi (2 km) if a marine mammal, sea turtle, or smalltooth sawfish is hooked or entangled by bottom longline gear;</p>	<p>The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, NMFS expected the release requirements to significantly reduce post-release mortality, and the requirement to move away from an area with known interactions to reduce the overall take, and thereby also lethal takes.</p>

Pelagic longline fishery	Final Rule	July 6, 2004 69 FR 40734	<p>Based upon a three-year research project in the NED fishing area, this final rule (69 FR 40734) implemented new sea turtle bycatch and bycatch mortality mitigation measures for all Atlantic vessels that have pelagic longline (PLL) gear onboard and that have been issued, or are required to have, Federal HMS limited access permits. These measures include mandatory circle hook and bait requirements, and mandatory possession and use of sea turtle release equipment to reduce bycatch mortality. This final rule also allows vessels with pelagic longline gear onboard that have been issued, or are required to have, Federal HMS limited access permits to fish in the Northeast Distant (NED) Closed Area, if they possess and/or use certain circle hooks and baits, sea turtle release equipment, and comply with specified sea turtle handling and release protocols.</p>	<p>requirement to follow guidelines for safe handling, disentanglement, and release of smalltooth sawfish and sea turtles outlined at 50 CFR Part 635.21 and 223.206 (d) (1); and sea turtle handling and release guidelines provided by NMFS must be posted in the wheelhouse (placard).</p>	<p>NMFS expected post-release mortality to be reduced by 21 percent for loggerhead sea turtles following a period of acclimation by the fisherman to the release protocols. The post-hooking mortality was expected to be reduced to 17 percent. Total average annual loggerhead mortalities with the conservation measures was expected to be approximately 339 vs. 429 mortalities expected without the conservation measures. Achieving this level of mortality reduction is predicated on high compliance by the fishery, and gear removal possibility being similar to that seen in the NED experiments. There are indications that actual gear removal rates may not be at the predicted levels, and therefore the actual reductions in mortality would be lower.</p>
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Bottom longline	Final Rule	August 9, 2006 effective September 8, 2006 71 FR 45428	In response to reasonable and prudent measures and implementing terms and conditions from a 2005 biological opinion on the continued authorization of the Gulf of Mexico reef fish fishery, NMFS implemented sea turtle protection measures. As part of Amendment 18A (71 FR 45428) to the Gulf of Mexico reef fish FMP, NMFS required all permitted reef fish vessels with hook-and-line gear on board to carry and use sea turtle release gear (effective September 8, 2006).	The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, prior to the regulations there was no requirement to carry sea turtle release gear or take actions to remove gear from incidentally taken sea turtles. Based on limited data, assumptions on hooking location based on the use of circle hooks in the fishery, and the 2004 draft criteria for estimating post-release mortality, the opinion estimated loggerhead post-release mortality without the use of sea turtle release gear would be approximately 30%. Following implementation, and assuming release of loggerheads without hooks or trailing gear, NMFS estimated that lethal interactions could be reduced to as low as 10% of total interactions. However, this assumes near-perfect compliance and opportunity to release all gear, and likely the post-release mortality is somewhere in between 10-30%.
Reef fish – bottom longline	Final Rule	October 2, 2006. Effective January 1, 2007, the final rule (71 FR 58058)	Effective January 1, 2007, the final rule (71 FR 58058) implementing the Consolidated HMS FMP for a final rule required: Mandatory protected species safe handling, release, and identification workshops for vessels owners and operators; training certificate required to renew or transfer swordfish and shark limited access permits, and; owner and operator certificates required to be onboard vessel. The goal of the mandatory workshops is to increase fishermen's	The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, through the Northeast Distant (NED) statistical area experiment, NMFS has shown that significant bycatch reductions can be achieved through proper research, education, and outreach.

			proficiency with required release equipment and protocols to reduce the number of protected and non-target species mortalities.			
Reef fish – bottom longline fishery	Final Rule	February 7, 2007. Effective March 9, 2007, a final rule (72 FR 5633)	Effective March 9, 2007, a final rule (72 FR 5633) Atlantic shark fishermen with BLL gear onboard were required to possess, maintain, and utilize additional equipment for protected resources and other bycatch consistent with the requirements for the pelagic longline fishery regardless of freeboard height.	The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, NMFS expected the additional release requirements to help further reduce post-release mortality.		
Pelagic and bottom longline fishery	Final Rule	September 23, 2008; Rule went into effect January 1, 2009.	NMFS published a regulation requiring all HMS fisheries, bottom and pelagic longline, to possess and use a sea turtle control device in addition to the existing gear removal equipment requirements. This allowed greater control over the turtle in the water for easier and more effective gear removal, and increased crew safety. This rule went into effect January 1, 2009.	The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, NMFS expected the additional release requirements to help further reduce post-release mortality.		
Bottom longline	Emergency Rule	May 1, 2009. (74 FR 20229). Effective May 18, 2009 through	Based upon information from a 2008 report showing that loggerhead sea turtle take in the commercial bottom longline fishery in the Gulf of Mexico substantially exceeded	The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, the prohibition of the gear in the defined area was expected to		

		October 28, 2009	<p>the take analyzed in the biological opinion, NMFS published a temporary emergency rule (74 FR 20229). Effective May 18, 2009 through October 28, 2009, the rule prohibited the use of bottom longline gear to harvest reef fish east of 85°30'W longitude in waters less than 50 fathoms until the 2009 deepwater grouper and tilefish quotas were met and in water of all depths east of 85°30'W longitude thereafter.</p>	<p>prevent additional sea turtle (including loggerhead) take and mortality until a more permanent measure could be devised.</p>
Bottom longline fishery	Interim Final Rule	October 21, 2009; (74 FR 53889)	<p>Because the emergency rule was set to expire on October 28, 2009, NMFS developed an interim rule (74 FR 53889) pursuant to its authority under the ESA that would (1) prohibit the use of bottom longline gear in the fishery in the eastern Gulf inshore of the 35-fathom contour and (2) impose the hook restriction component of Amendment 31. The purpose of this rulemaking was to balance the continued operation of the bottom longline component of the reef fish fishery while maintaining adequate protective measures for sea turtles until the GMFMC's preferred management strategy in Amendment 31 could be implemented.</p>	<p>The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, the prohibition of the gear in the defined area was expected to prevent additional sea turtle (including loggerhead) take and mortality until a more permanent measure could be devised.</p>
Bottom longline fishery	Proposed Rule	November 16, 2009, effective December 2009; (74 FR	<p>As part of Amendment 15B (74 FR 58902) to the Snapper-Grouper Fishery Management Plan, NMFS required all South Atlantic snapper-</p>	<p>The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, prior to the</p>

		58902)	<p>grouper vessels with hook-and-line gear on board to carry and use prescribed sea turtle release gear (effective December 2009). This requirement arose from a reasonable and prudent measure and implementing terms and conditions required in a 2006, NMFS biological opinion on the continued authorization of the fishery.</p>	<p>regulations there was no requirement to carry sea turtle release gear or take actions to remove gear from incidentally taken sea turtles. Based on limited data, assumptions on hooking location based on the use of circle hooks in the fishery, and the 2004 draft criteria for estimating post-release mortality, the opinion estimated loggerhead post-release mortality without the use of sea turtle release gear would be approximately 30%. Following implementation, and assuming release of loggerheads without hooks or trailing gear, NMFS estimated that lethal interactions could be reduced to as low as 10% of total interactions. However, this assumes near-perfect compliance and opportunity to release all gear, and likely the post-release mortality is somewhere in between 10-30%.</p>
<p>Bottom Longline Fishery</p>	<p>Final Rule</p>	<p>April 26, 2010, effective May 26, 2010 75 FR 21512</p>	<p>The Final Rule implementing Amendment 31 (75 FR 21512) was effective May 26, 2010. Measures in the rule: (1) Prohibit the use of bottom longline gear in the reef fish fishery east of Cape San Blas, Florida, shoreward of a line approximating the 35-fathom depth contour from June through August; (2) Reduce the number of bottom longline vessels operating in the fishery through a longline endorsement provided only to federally-permitted vessels with demonstrated average annual landings of 40,000 pounds of reef fish taken by fish traps or longlines during 1999-2007; and (3) Restrict</p>	<p>NMFS estimated that 519 loggerheads were captured annually in the bottom longline component of the fishery through 2008, with 314 fatalities each year. Amendment 31 is expected to reduce the level of bottom longline takes to 208 loggerheads annually, with 126 lethal loggerhead takes – a reduction of approximately 60 percent. Overall, NMFS estimated that after Amendment 31 was fully implemented, the entire reef fish fishery would incidentally take 348 loggerheads annually (including 189 mortalities), representing a 50 percent reduction in baseline take levels.</p>

Scallop Fishery	Final Rule -- Chain Mats in the Atlantic Sea Scallop Dredge Fishery – gear modification	71 FR 50361 Published: August 25, 2006 Effective: September 21, 2006	the number of hooks that may be possessed onboard each reef fish bottom longline vessel to 1,000 hooks total, only 750 of which may be fished or rigged for fishing at any given time.	
Scallop Fishery	Emergency Final Rule	71 FR 66466 Published: November 15, 2006 Effective: November 20, 2006	Required the use of chain mat modified gear on Atlantic sea scallop dredge vessels south of 41° 9'N latitude from May 1 through November 30 each year to reduce injury and mortality to sea turtles. The chain mat prevents sea turtles from entering the dredge bag where they would be at further risk of injury and mortality. Correction – Two options for configuring the chain mat were allowed in the original rulemaking. This action removed one of the options after NMFS became aware of a discrepancy between the two.	The chain mat is expected to reduce serious injury and mortality of some sea turtle interactions with scallop dredge gear. However, the reduction in mortality cannot be quantified at this time.
Scallop Fishery				The chain mat is expected to reduce serious injury and mortality of some sea turtle interactions with scallop dredge gear. However, the reduction in mortality cannot be quantified at this time.

Scallop Fishery	Final Rule	73 Fr 18984 Published: April 8, 2008 Effective: May 8, 2008	Clarified the existing chain mat requirements, added a transiting provision, and addressed a procedural error in the original rulemaking.	The chain mat is expected to reduce serious injury and mortality of some sea turtle interactions with scallop dredge gear. However, the reduction in mortality cannot be quantified at this time.
Scallop Fishery	Final Rule	74 FR 46930\A Published: September 14, 2009 Effective: October 14, 2009	Clarified where on the dredge the chain mat must be hung, excluded the sweep from the requirement that the side of each opening in the chain mat be less than or equal to 14 inches, and added definitions of the sweep and diamonds, terms used to describe parts of the dredge gear.	The chain mat is expected to reduce serious injury and mortality of some sea turtle interactions with scallop dredge gear. However, the reduction in mortality cannot be quantified at this time.
Gillnet Fisheries	Emergency Rule	September 27, 2001	After an emergency 30-day closure in 1999 as result of sea turtle strandings with evidence of gillnet interactions, NMFS implemented an interim final rule (66 FR 50350, October 3, 2001) closing the waters of Pamlico Sound, NC, to fishing with gillnets with a mesh size larger than 4 1/4 inch (10.8 cm) stretched mesh. The closure was in effect from September 28 to December 15, 2001. The interim final rule, which expired on September 14, 2002, was published with the intent of issuing a	The majority of turtles taken in this fishery are green turtles, with a relatively small percent of the total being loggerheads, thus conservation benefits to loggerheads is far lower than the benefit for greens. The goal of the restrictions set forth in the original permit that allowed gillnet fishing in the federally closed areas was to reduce sea turtle mortalities by at least 50 percent based upon strandings data for the area. Subsequent permit take levels were based upon data obtained from observer requirements of the previous permits. The specific number of lethal sea turtle takes reduced by the implementation of this rule and permit requirements cannot be quantified with the available information.

Gillnet Fisheries	Final Rule	September 6, 2002 67 FR 56931	<p>permanent rule to go into effect September 15, 2002.</p> <p>NMFS closed the waters of Pamlico Sound, NC, to fishing with gillnets with a mesh size larger than 4 1/4 inch (10.8 cm) stretched mesh ("large-mesh gillnet"), on a seasonal basis, from September 1 through December 15 each year, to protect migrating sea turtles. The closed area includes all inshore waters of Pamlico Sound south of 35°46.3' N. lat., north of 35°00' N. lat., and east of 76°30' W. long. Subsequently, North Carolina applied for, and NMFS granted, a series of Endangered Species Act section 10 permits. These permits, the latest being Permit # 1528, allows for the prosecution of the flounder gillnet fishery in Pamlico Sound in eight established Gillnet Restricted Areas (GNRA).</p>		<p>The majority of turtles taken in this fishery are green turtles, with a relatively small percent of the total being loggerheads, thus conservation benefits to loggerheads is far lower than the benefit for greens. The goal of the restrictions set forth in the original permit that allowed gillnet fishing in the federally closed areas was to reduce sea turtle mortalities by at least 50 percent based upon strandings data for the area. Subsequent permit take levels were based upon data obtained from observer requirements of the previous permits. The specific number of lethal sea turtle takes reduced by the implementation of this rule and permit requirements cannot be quantified with the available information.</p>
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Gillnet Fishery	Final Rule	December 3, 2002	<p>NMFS enacted a seasonally-adjusted gear restriction (67 FR 71895) by closing portions of the Mid-Atlantic Exclusive Economic Zone (EEZ) waters to fishing with gillnets with a mesh size larger than 8-inch (20.3 cm) stretched mesh. The purpose of this action was to reduce the impact of large-mesh gillnet fisheries on endangered and threatened species of sea turtles, primarily the monkfish fishery which uses large-mesh gillnet gear and operates in the area when sea turtles are present. This rule went into effect on January 2, 2003. On April 26, 2006, a rule was enacted concurrent with the Bottlenose Dolphin Take Reduction Plan (71 FR 24776; effective May 26, 2006), changing the mesh size requirement to 7-inch stretched mesh or greater. This was done to bring the regulation in line with other regional definitions of "large mesh" to avoid confusion, but no additional fisheries or conservation benefits were expected from that change.</p>	<p>The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, at the time of this rule, NMFS anticipated that this rulemaking would reduce unauthorized lethal sea turtle interactions with large mesh gillnets, a known source of sea turtle mortality, especially given changes occurring at the time in the monkfish FMP.</p>
Gillnet Fishery	State Regulations	2005	<p>The states of North Carolina and Virginia enact large-mesh gillnet restrictions in state waters outside the COLREGS lines for sea turtle conservation in response to NMFS proposing to extend the federal large-mesh gillnet restrictions into NC and VA state waters. Based upon information received during the comment period for the 2002 regulation, as well as information later provided by NC and VA, it became apparent that large-mesh (7-inch or greater) gillnet fishing in state waters was more prevalent than</p>	<p>The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, at the time of this rule, NC and VA, along with NMFS, anticipated that this rulemaking would reduce unauthorized lethal sea turtle interactions with large mesh gillnets, a known source of sea turtle mortality.</p>

Federal measures for the Virginia ¹ pound net fishery	Temporary rule – gear restriction	66 FR 33489 Published: June 22, 2001 Effective: June 19- July 19, 2001	Required tying up of all pound net leaders with 8 inches and greater stretched mesh and leaders with stringers in mainstem Virginia Chesapeake Bay and tributaries.	<p>originally thought when limiting the original regulation (67 FR 71895) to waters of the EEZ. NMFS proposed to expand the federal regulations into the state waters of NC and VA. The states then determined they would prefer the flexibility of enacting their own, equivalent protections instead. North Carolina devised a standard list of large-mesh gillnet gear limitations, seasonal closures, and monitoring to avoid large-mesh gillnet fishing in times and places when sea turtles are expected to be present. They implement the restrictions on an annual basis via proclamation from NC Division of Marine Fisheries. Virginia, in April 2005, enacted a series of gillnet regulations to serve the same purpose (4 VAC 20-170-10 Et. Seq., 4 VAC 20-252-10 Et. Seq., 4 VAC 20-320-10 Et. Seq., 4 VAC 20-1080-10 Et. Seq., 4 VAC 20-430-10 Et. Seq.).</p>	The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, at the time of this rule, NMFS anticipated that this rulemaking would reduce unauthorized lethal sea turtle interactions with pound net leaders.
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¹ While pound nets are fished in other states, the Virginia pound net fishery is the only one NMFS has regulated to date, due to documented lethal sea turtle interactions with leaders.

Federal measures for the Virginia ² pound net fishery	Interim final rule – gear restriction	67 FR 41196 Published: June 17, 2002 Effective: June 12- June 30, 2002; May 8-June 30 in each year thereafter	Prohibited pound net leaders with 12 inches and greater stretched mesh and leaders with stringers in mainstem Virginia Chesapeake Bay and downstream of first bridge in each tributary. Included year round reporting and monitoring requirements. Included framework mechanism by which NMFS may make changes to restrictions or dates on expedited basis based upon new information.	The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, at the time of this rule, NMFS anticipated that this rulemaking would reduce unauthorized lethal sea turtle interactions with pound net leaders during the regulated period.
Federal measures for the Virginia ³ pound net fishery	Temporary final rule – implementation of framework mechanism	68 FR 41942 Published: July 16, 2003 Effective: July 16-July 30, 2003	Prohibited all pound net leaders in mainstem Virginia Chesapeake Bay and downstream of first bridge in each tributary.	The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, at the time of this rule, NMFS anticipated that this rulemaking would eliminate sea turtle interactions with pound net leaders during the regulated period.

² While pound nets are fished in other states, the Virginia pound net fishery is the only one NMFS has regulated to date, due to documented lethal sea turtle interactions with leaders.

³ While pound nets are fished in other states, the Virginia pound net fishery is the only one NMFS has regulated to date, due to documented lethal sea turtle interactions with leaders.

Federal measures for the Virginia ⁴ pound net fishery	Final rule – gear restriction	69 FR 24997 Published: May 5, 2004 Effective ⁵ : May 5, 2004; applies from May 6 through July 15 each year	Prohibited all offshore ⁶ pound net leaders in portion of the southern Virginia Chesapeake Bay. Outside this area, retained prohibition of leaders with 12 inches and greater stretched mesh and leaders with stringers (as established in 2002). Retained year round reporting and monitoring, as well as framework mechanism (as established in 2002).	The specific number of lethal sea turtle takes reduced by the implementation of this rule cannot be quantified with the available information. However, at the time of this rule, NMFS anticipated that during the regulated period this rulemaking would eliminate sea turtle interactions with offshore pound net leaders in a portion of the southern Virginia Chesapeake Bay, and reduce unauthorized lethal sea turtle interactions with pound net leaders outside that area.
Federal measures for the Virginia ⁷ pound net fishery	Final rule – gear modification	71 FR 36024 Published: June 23, 2006 Effective ² : June 23, 2006; applies from May 6 through July 15 each year	Required any offshore pound net leader set in portion of southern Virginia Chesapeake Bay to be a modified leader, as defined in the regulations (created an exception to 2004 leader prohibition). Allowed modified leaders to be set outside this area.	At the time of this rule, NMFS anticipated that this rulemaking, which allowed a gear modification in a leader prohibited area, would provide a similar level of protection to sea turtles compared to status quo. As such, NMFS did not project a further level of sea turtle mortality reduction.
	Final rule – modified leader inspection program	73 FR 68348 Published: November 18, 2008 Effective ² : December 18, 2008	Required all modified pound net leaders to be inspected by NMFS prior to deployment.	With the implementation of an on-shore inspection program designed to facilitate compliance with the existing regulations, NMFS did not project a further level of sea turtle mortality reduction with this rule.

⁴ While pound nets are fished in other states, the Virginia pound net fishery is the only one NMFS has regulated to date, due to documented lethal sea turtle interactions with leaders.

⁵ These measures are currently in effect.

⁶ Offshore leader = Leader with the inland end set greater than 10 horizontal feet from the mean low water line.

⁷ While pound nets are fished in other states, the Virginia pound net fishery is the only one NMFS has regulated to date, due to documented lethal sea turtle interactions with leaders.

Note that there are also regulations promulgated by the Commonwealth of Virginia (Virginia Marine Resources Commission) that pertain to the pound net fishery.

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DATE SIGNED	LEAD REGION	ACTION AREA	INCIDENTAL TAKE STATEMENT (ANTICIPATED TAKE)										ITS NOTES
			Loggerhead		Green Turtle		Leatherback		Hawksbill		Kemp's Ridley (Atl) Olive Ridley (Pac)		
			Alive	Dead	Alive	Dead	Alive	Dead	Alive	Dead	Alive	Dead	
EGION													
09/28/09	SER	U.S. EEZ South Atlantic and Gulf of Mexico	3-yr Estimate 12		4	3	1	1- lethal or non-lethal	2	1			Estimate is for the entire fishery and is based on an extrapolation of observed takes across total effort levels
08/27/09	SER	U.S. EEZ South Atlantic and Gulf of Mexico	3-yr Estimate 3 - lethal or non-lethal			3 - lethal or non-lethal	*1 leatherback, 1 Kemp's or 1 Hawksbill - either lethal or non-lethal.						Estimate is for the entire fishery and is based on an extrapolation of observed takes across total effort levels. *1/C: These estimates are for all species in combination, not each species individually.
08/13/07	SER	U.S. EEZ from the Mid- and South Atlantic (NY/NJ border to E. Coast FL) and Gulf of Mexico (W. FL to TX)	3-yr Estimate 33 - lethal or non-lethal			14 - lethal or non-lethal	2* - lethal or non-lethal	2* - lethal or non-lethal					Estimate is for the entire fishery and is based on an extrapolation of observed takes across total effort levels. *These species take numbers are in combination with one another and represent the maximum number of each that may be taken over a three-year period.
06/07/06	SER	U.S. EEZ in South Atlantic (VA/NC to E. Coast FL)	3-yr Estimate 202 total (67 lethal)		39 total (14 lethal)	25 total (15 lethal)	4 total (3 lethal)	19 total (8 lethal)					Estimate is for the entire fishery and is based on an extrapolation of observed takes across total effort levels. 3 year estimates beginning July 2006.
08/19/05	SER	U.S. EEZ Caribbean Sea	1-yr Estimate 0		4	4	1	6	4	4	0	0	Estimate is for the entire fishery and is based on an extrapolation of observed takes across total effort levels.
10/13/09	SER	U.S. EEZ in Gulf of Mexico (W. Coast FL to TX)	3-yr Estimate 2009-2011 Total Fishery - 1152 total (631 lethal). *C total (443); C-VL 76(23); R-VL 254(75); VS 90 (all lethal)		Total Fishery - 170 total (75 lethal). *C total (44); C-VL 14(4); R-VL 45(14); VS 54 (all lethal)	Total Fishery - 111 total (11 lethal). *C total (3); C-VL 1; R-VL 6; VS 6 All leatherback takes assumed to be mortalities	Total Fishery - 8 total (8 lethal). *C total (3); C-VL 1; R-VL 3 All Hawksbill takes assumed to be mortalities	Total Fishery - 88 total (39 lethal). *C total (3); C-VL 23(7); R-VL 74(2); VS 9 (all lethal)					Estimate is for the entire fishery and is based on an extrapolation of observed takes across total effort levels. *Total Fishery 3-yr estimate is broken into 4 categories/species - commercial bottom longline takes (C-BL), commercial vertical line takes (C-VL), rec vertical line takes (R-VL), vessel strike takes (VS). Take numbers formatted as Total# (# authorized lethal). Previous BiOp 2-15-2005
			3-yr Estimate - After 2011 Total Fishery - 1043 total (566 lethal). *C total (378); C-VL 76(23); R-VL 254(75); VS 90 (all lethal)		Total Fishery - 170 total (75 lethal). *C total (44); C-VL 14(4); R-VL 45(14); VS 54 (all lethal)	Total Fishery - 111 total (11 lethal). *C total (3); C-VL 1; R-VL 6; VS 6 All leatherback takes assumed to be mortalities	Total Fishery - 8 total (8 lethal). *C total (3); C-VL 1; R-VL 3 All Hawksbill takes assumed to be mortalities	Total Fishery - 88 total (39 lethal). *C total (3); C-VL 23(7); R-VL 74(2); VS 9 (all lethal)					

06/01/04	SER	U.S. EEZ in Atlantic, Gulf of Mexico, and Caribbean Sea	<p>3-yr Estimates (2007-2009, 2010-2012)</p> <p>1905 total (429 lethal)</p> <p>*105 total (21 lethal)</p> <p>1764 total (594 lethal)</p> <p>*105 total (21 lethal) - Takes for greens, hawksbills, Kemp's ridleys and olive ridleys in combination, not individually by species.</p>	<p>*Takes for greens, hawksbills, Kemp's ridleys and olive ridleys are in combination, not individually by species. Total annual takes in the fishery are estimated by the SEFSC based on their pelagic observer program, the NED experiment results, and reported fishing effort.</p>
05/20/08	SER	U.S. EEZ in Atlantic, Gulf of Mexico, and Caribbean Sea	<p>3-yr Estimate</p> <p>679 total (346 lethal)</p> <p>2 total (1 lethal)</p> <p>74 total (47 lethal)</p> <p>2 total (1 lethal)</p>	<p>NMFS anticipates the following incidental takes may occur every three years starting July 2008 as a result of the continued operation of Atlantic FMS shark fisheries under the HMS Consolidated FMP, including Amendment 2. Encompasses bottom longline, gillnet and recreational handgear. Previous BiOp was signed 10/29/2003. ITS exp: Ongoing</p>
08/27/03	SER	U.S. Atlantic EEZ	<p>1-yr Estimate</p> <p>10</p> <p>2</p> <p>1</p> <p>11</p> <p>1</p> <p>2</p> <p>1</p> <p>2</p> <p>1</p>	<p>Estimate is for the entire fishery and is based on an extrapolation of observed takes in HMS logline across total dolphin effort levels. No more than 16 sea turtles of any species in combination may be taken in a given year</p>
12/02/02	SER	U.S. EEZ in South Atlantic (VA/NC to E. Coast FL) and Gulf of Mexico (W. Coast FL to TX)	<p>1-yr Estimate</p> <p>163,160 total (3,948 lethal)</p> <p>18,757 total (514 lethal)</p> <p>3,090 total (80 lethal)</p> <p>640 total (640 lethal)</p> <p>155,503 total (4,208 lethal)</p>	<p>Estimate is for the entire fishery and is based on an extrapolation of observed takes across total effort levels.</p>
EGION				
08/20/07	NER	U.S. EEZ from Gulf of Maine to Cape Hatteras, NC	<p>2009 and out years estimate</p> <p>Trawl gear</p> <p>7 loggerheads, and 1 turtle of species loggerhead, leatherback, green, or Kemp's ridley (only 1 mortality allowed annually for trawl or dredge)</p> <p>Dredge gear</p> <p>1 loggerhead, leatherback, green, or Kemp's ridley (only 1 mortality allowed annually for trawl or dredge)</p>	<p>Combined for trawl and dredge gear - 9 sea turtles per year (8 released alive, 1 dead). ITS Expiration Date: Ongoing</p>
3/14/2008 - ITS amended 2/5/2009	NER	U.S. EEZ from ME to the VA/NC border	<p>Dredge gear - 2 year estimate</p> <p>929 total (595 lethal)</p> <p>2 - lethal or non-lethal</p> <p>1 - non-lethal</p> <p>0</p> <p>2 - lethal or non-lethal</p> <p>Trawl gear - 1 year estimate</p> <p>154 total (20 lethal)</p> <p>1 - lethal or non-lethal</p> <p>0</p> <p>1 - lethal or non-lethal</p>	<p>BIENNIAL ITS Expiration Date: Ongoing</p> <p>ANNUAL ITS Expiration Date: Ongoing</p>

10/29/10	NER	U.S. EEZ from ME to Cape Hatteras, NC	TRAWL: 24 (11 lethal) annually over 5-year average GILLNET: 15 (6 lethal) annually over 5-year average	TRAWL and GILLNET (combined): 5 annually, lethal or non lethal	TRAWL and GILLNET (combined): 4 annually, lethal or non lethal	0	TRAWL and GILLNET (combined): 4 annually, lethal or non lethal	Leatherback, green, and Kemp's ridley have no bycatch estimate, takes are on an annual basis. Loggerheads: separate NEFSC bycatch estimates for trawl and gillnet gear. Trawl estimate is an annual point estimate calculated from a 5-year average. Gillnet estimate is the upper end of a 95% CI used over a 5-year period. ITS Expiration Date: Ongoing
10/29/10	NER	U.S. EEZ from ME to the NC/SC border	TRAWL: annual take of up to 2 (1 lethal) individuals over a 5 year average; GILLNET: annual take of up to 171 (69 lethal) individuals over a 5 year average	TRAWL and GILLNET (combined): 5 annually, lethal or non lethal	TRAWL and GILLNET (combined): 4 annually, lethal or non lethal	0	TRAWL and GILLNET (combined): 4 annually, lethal or non lethal	Leatherback, Green and Kemp's ridley have no bycatch estimate, takes are on an annual basis. Loggerheads: NEFSC separate bycatch estimate for trawl and gillnet component. Trawl estimate is an annual estimate calculated from a five yr average. Gillnet upper range of CI used over a 5 yr period. ITS Expiration Date: Ongoing
10/29/10	NER	U.S. EEZ waters from ME to Cape Hatteras, NC & adjoining state waters to the extent affected by federal	1 - lethal or non lethal (annually)	0	5 - lethal or non lethal (annually)	0	0	Pot/trap gear fishery. ITS Expiration Date: Ongoing
02/06/02	NER	U.S. EEZ from ME to Cape Hatteras, NC	1 lethal or non lethal	0	1 lethal or non lethal	0	0	ITS reads - lethal or non lethal take of 1 loggerhead and/or 1 leatherback. ITS Expiration Date: Ongoing
10/29/10	NER	U.S. EEZ from ME to the NC/SC border	TRAWL: 192 (79 lethal) average annual over 5 years GILLNET: 12 (5 lethal) upper range over 5 year period	TRAWL: 2 - annual lethal or non lethal GILLNET: 3 annual lethal or non lethal POT/TRAP: 2 annual lethal or non lethal	TRAWL: 2- annual lethal or non lethal GILLNET: 2 annual lethal or non lethal	0	TRAWL: 2- annual lethal or non lethal GILLNET: 2 annual lethal or non lethal	Leatherback, Green and Kemp's ridley have no bycatch estimate, takes are on an annual basis. Loggerheads: NEFSC separate bycatch estimate for trawl and gillnet component. Trawl estimate is an annual estimate calculated from a five yr average. Gillnet upper range of CI used over a 5 yr period. ITS Expiration Date: Ongoing
10/29/10	NER	U.S. EEZ from ME thru FL	TRAWL: annual take of up to 1 (1 lethal) individuals over a 5 year average GILLNET: annual take of up to 1 (1 lethal) individuals over a 5 year average	TRAWL and GILLNET (combined): 5 annually, lethal or non lethal	TRAWL and GILLNET (combined): 4 annually, lethal or non lethal	0	TRAWL and GILLNET (combined): 4 annually, lethal or non lethal	Leatherback, Green and Kemp's ridley have no bycatch estimate, takes are on an annual basis. Loggerheads: NEFSC separate bycatch estimate for trawl and gillnet component. Trawl estimate is an annual estimate calculated from a five yr average. Gillnet upper range of CI used over a 5 yr period. ITS Expiration Date: Ongoing

10/29/10	NER	U.S. EEZ waters from ME thru the range of the species covered by the FMP (~Cape Hatteras, NC)	1 year estimate (over 5 year average for loggerheads only) TRAWL: annual take of up to 43 (19 lethal) individuals over a 5 year average GILLNET: annual take of up to 3 (2 lethal) individuals				TRAWL and GILLNET (combined): 5 annually, lethal or non lethal	TRAWL and GILLNET (combined): 4 annually, lethal or non lethal	TRAWL and GILLNET (combined): 4 annually, lethal or non lethal	Leatherback, Green and Kemp's ridley have no bycatch estimate, takes are on an annual basis. Loggerheads: NEFSC separate bycatch estimate for trawl and gillnet component. Trawl estimate calculated from a five yr average. Gillnet upper range of CI used over a 5 yr period. ITS Expiration Date: Ongoing
04/16/04	NER	VA waters as described in the BO (no federal waters)	1-yr Estimate Pound net leaders from July 16-May 5: 1 loggerhead, 1 Kemp's ridley, 1 green, or 1 leatherback sea turtle. <i>Take assumed lethal.</i> Pound net leaders (<12") from May 6-July 15: 1 loggerhead, 1 Kemp's ridley, 1 green, or 1 leatherback sea turtle. <i>Take assumed lethal.</i> Pound: 505 live/uninjured loggerhead sea turtles, 101 live/uninjured Kemp's ridley sea turtles, and 1 live/uninjured green sea turtle. <i>No lethal takes authorized for pound interactions.</i>							ITS Expiration Date: Ongoing
03/13/01	NER	All waters under U.S. jurisdiction in the Atlantic Ocean north of the VA/NC border	1-yr Estimate 6 total (3 lethal or having ingested the hook.)				1 - lethal or non-lethal	0	ITS Expiration Date: Ongoing	
09/17/99	NER	All 3 management areas as described in the FMP; roughly waters from ME through NC	1-yr Estimate 6 total (3 lethal)				1 - lethal or non-lethal	0	ITS Expiration Date: Ongoing	
10/29/10	NER	U.S. EEZ from ME thru FL	1 year estimate (over 5 year average for loggerheads only) TRAWL: 3 (2 lethal) annually over 5-year average; GILLNET: 79 (32 lethal) annually over 5-year average				TRAWL and GILLNET (combined): 5 annually, lethal or non lethal	TRAWL and GILLNET (combined): 4 annually, lethal or non lethal	Leatherback, green, and Kemp's ridley have no bycatch estimate, takes are on an annual basis. Loggerheads: separate NEFSC bycatch estimates for trawl and gillnet gear. Trawl estimate is an annual point estimate calculated from a 5-year average. Gillnet estimate is the upper end of a 95% CI used over a 5-year period. ITS Expiration Date: Ongoing	
10/29/10	NER	U.S. EEZ from ME to the NC/SC border	1 year estimate (over 5 year average for loggerheads only) 62 (27 lethal) annually over 5-year average				TRAWL and GILLNET (combined): 5 annually, lethal or non lethal	TRAWL and GILLNET (combined): 4 annually, lethal or non lethal	Leatherback, Green and Kemp's ridley have no bycatch estimate, takes are on an annual basis. Loggerheads: NEFSC separate bycatch estimate for trawl and gillnet component. Trawl estimate is an annual estimate calculated from a five yr average. Gillnet upper range of CI used over a 5 yr period. ITS Expiration Date: Ongoing	
04/16/09	NER	Coastal waters off Rhode Island to Cape Hatteras, NC	1-yr Estimate 3				2 - lethal or non lethal	0	0	Project and ITS is for 2009 only, ITS anticipates all takes will be released alive and uninjured. Expired
04/13/10	NER	Coastal waters from Montauk, NY to Cape Hatteras, NC including Block Island and Rhode Island Sounds	1 year estimate 3				2 - lethal or non lethal	0	0	Project and ITS is for 2010-2012 only; ITS anticipates all takes will be released alive and uninjured. Consultation was recently reiterated due to exceedance of ITS for Kemp's ridleys in 2010 surveys (new BIOP for 2011 forthcoming).

REGION														
08/06/08	SWR	North of Pt. Conception, to 45 N latitude, west to EEZ	1-yr Estimate	0	0	0	0	0	0	0	0	0	0	*Mortality is a subset of Take. This fishery was proposed to operate September - December, years 2008 and 2009; therefore, the Biological Opinion expires December 31, 2009. This fishery has not occurred, as of Nov. 23rd 2009.
02/04/04	SWR	West coast EEZ	1-yr Estimate	5	2	4	1	3	2	0	0	4	1	Conditions resulting in take of loggerheads includes El Nino years only.
12/8/1999, ITS amended 1/8/01 and then 7/7/04	SWR	Eastern Tropical Pacific Ocean	10-yr Estimate	30	1 every 7 years	350	20	20	1	20	1	1330	70	
DS REGION														
09/16/10	PIR	American Samoa EEZ, waters around it, EEZs of some other foreign countries (e.g., Samoa).	3-yr Estimate	0	0	45	41	1	1	1	1	1	1	Adult female equivalents included in the ITS, every three years, are 10 green, 1 hawksbill, 1 leatherback, and 1 olive ridley.
09/01/09	PIR	EEZs of 16 Pacific Island Countries party to the South Pacific Tuna Treaty and High Seas	1-yr Estimate	0	0	0	4	0	0	0	0	0	0	
10/15/08	PIR	Central, Western, and Northern Pacific Ocean, including inside the EEZ around U.S. Islands in the Pacific	1-yr Estimate	46	10	1	1	16	4	0	0	4	1	NOTE-Due to the recent Amendment 18 settlement early 2011, the provisions of the BO that address loggerhead and leatherback sea turtles are no longer valid, the rule related to it is vacated, the ITS from this opinion is no longer in effect, and the 2004 opinion and it's ITS are now in effect.
03/18/08	PIR	Main Hawaiian Islands	1-yr Estimate	0	0	0	2	0	0	0	0	0	0	
11/01/06	PIR	EEZs of 16 Pacific Island Countries party to the South Pacific Tuna Treaty and High Seas	1-yr Estimate	11	0	14	0	11	0	14	0	11	0	
10/04/05	PIR	Central, Western, and Northern Pacific Ocean, including inside the EEZ around U.S. Islands in the Pacific	3-yr Estimate	18	9	21	18	39	18	0	0	121	117	

02/23/04	PIR	Central, Western, and Northern Pacific Ocean, including inside the EEZ around U.S. Islands in the Pacific	1-yr Estimate 17 3 1 1 16 2 0 0 5 1										NOTE-Due to recent Amendment 18 settlement early 2011, the ITS from this biological opinion is currently in effect until a new opinion is issued after the loggerhead DPS rule is issued.
02/23/04	PIR	Central, Western, and Northern Pacific Ocean, including inside the EEZ around U.S. Islands in the Pacific	1-yr Estimate For hardshell turtles, a total of 6 interactions and 1 mortality among all species are authorized; for leatherback turtles one interaction and no mortalities are authorized										