

Supplemental Data For:

Managing Fisheries in a World with More Sea Turtles

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This file contains four supplemental tables that provide information on regulations instituted by the North Carolina Division of Marine Fisheries to manage gillnet use in state waters (Supplemental Table 1), annual catch, effort, and sea turtle bycatch data associated with the large-mesh gillnet fishery (Supplemental Table 2), annual catch, effort, and sea turtle bycatch data associated with the small-mesh gillnet fishery (Supplemental Table 3), and annual indices of sea turtle abundance in North Carolina waters (Supplemental Table 4).

Supplemental Table 1. Examples of major regulations instituted by the North Carolina Division of Marine Fisheries to the gillnet fisheries of North Carolina, USA (1979 – 2017). Green shading indicates rules that restricted the amount of time gillnets could be left in the water (“soaktime”) and the length of gillnets. Each of these management actions would be expected to reduce the bycatch of sea turtles (because less gear is in the water for a shorter time and turtles will have fewer opportunities to become entangled). Yellow shading indicates rules that relaxed regulations.

Year	Month(s) / Day(s)	Regulation change
1979	Jan -	11-inch TL minimum size for flounder
1988	Sept -	13-inch TL minimum size for flounder
1992	Sept 1 -	Escapement panels required in pound nets in Core Sound and southeast Pamlico Sound (four panels at least six meshes high and eight meshes long)
1998	Sept 1 -	Escapement panels required in flounder pound nets statewide with a minimum mesh size of 5.5 inches, Albemarle Sound west of Alligator River exempted (NCAC 03J .0107)
1999	Dec 16 -	NMFS emergency rule closed southeastern Pamlico Sound to large mesh* gill nets due to interactions with sea turtles for the season
2000	Oct 28– Dec 31	Deep-water large mesh* gill net fishery in Pamlico Sound closed by NMFS due to sea turtle mortalities
2000	Nov 2 -	NMFS issued Incidental Take Permit (ITP) to the NCDMF for the gill net fishery. Established the Pamlico Sound Gill Net Restricted Area (PSGNRA) and imposed gill net fishery management measures.
2000	Oct 27 -	The NCDMF closed the PSGNRA to the use of large mesh* gill nets due to sea turtle interactions
2001	Sept 1– Dec 15	NMFS closed the Pamlico Sound deep water large mesh* gill-net fishery annually. The PSGNRA continued to operate under an ITP that included: permitted entry, restricted areas, a 2,000 yard limit for all gill-net operations, weekly fishermen reporting, and mandatory scientific observer coverage (Federal Rule 50 CFR Part 223; 66 FR 50350 September 28, 2001).
2002	Sept 1– Dec 15	Reoccurring closure of Pamlico Sound deep water area established by NMFS (Federal Rule 50 CFR Part 223; 67 FR 56931 September 3, 2002)
2002		Reoccurring regulations established for PSGNRA: open under ITP regulations until Sept 1, closed until mid-Sept, then open to 24/7 fishing for the remainder of the season unless interactions with sea turtles exceed ITP thresholds. Three inlet corridors established where large mesh* gillnets were prohibited: Oregon Inlet (OIC), Ocracoke Inlet (OC) and Hatteras Inlet Corridors (HC). Two new mainland restricted areas established. Small mesh gill nets were exempted from the permitting requirements.
2003		Three-year ITP granted for the gill-net fishery. Implemented a sea turtle observer and characterization program in PSGNRA September through December.
2005		NCDMF received a six-year ITP for the gill-net fishery with changes including increased observer coverage. The mainland portion of the Pamlico Sound was no longer required to have a permit
2005	Apr -	14-inch minimum size limit for flounder in estuarine waters
2005	Apr 15 -	Minimum mesh size of 5.5- inch stretched mesh for large mesh* gill nets (rule 15A NCAC 03J. 0103(a)(2))
2005	Sept 1 -	3,000-yard limit on gill nets (rule 15A NCAC 03J .0103(i)(1))
2005	Sept 1 -	Escape panels of 5.5-inch stretched mesh required in pound nets statewide (ended exemption in Albemarle Sound west of the Alligator River) (rule 15A NCAC 03J .0501(e)(2))
2005	Dec 1–31	Reoccurring commercial flounder fishery closure (except where noted)
2007	Nov 15– Dec 15	The PSGNRA season closed due to sea turtle interactions surpassing thresholds (proclamation M-19-2007).

2007	Dec 1–15	Commercial fishery open due to multiple significant variable conditions, except gill nets 4 to 6.5 inches stretch mesh remained closed in the PSGRNA
2009	Oct 22 - Nov 30	The PSGNRA season closed due to sea turtle interactions surpassing authorized thresholds (proclamation M-24-2009).
2010	May 15 -	Due to Sea Turtle Lawsuit Settlement, large mesh* gill nets were limited to use: four nights per week (Tuesday - Friday) with 15 meshes deep, a maximum of 2,000 yards north of and 1,000 yards south of Hwy 58 Bridge with 100-yards of continuous net. They are also required to have leaded bottom lines, prohibited to use floats north of the Highway 58 Bridge and must leave a space of 25-yards between sections of net. Exempted areas included western Albemarle Sound, Currituck Sound and the PSGNRA from September through November (proclamation M-8-2010)
2010	Sept 3- Oct 6	South Core Sound, Back Sound, North River and tributaries (area D1) closed to large mesh* gill nets due to sea turtle interactions with gill nets (proclamation M-16-2010)
2011	Jan 20- Mar 28	Albemarle Sound Management Area (ASMA), Pamlico Sound, Pamlico, Pungo, Bay, and Neuse Rivers and the Cape Fear River exempted from Sea Turtle Settlement measures (four day fishing week, the mesh height, lead line and float requirements, and the 100 yard continuous length limit) for large mesh* gill nets to allow for a shad harvest season (proclamation M-2-2011)
2011	Sept 12 -	Restrictions on large mesh* gill nets no longer required in Albemarle, Croatan, and Roanoke sounds north and west of Highway 64/264 bridges as well as Pamlico, Bay, and Neuse rivers (proclamation M-27-2011)
2011	Sept 18 -	An extra day was allowed for large mesh* gill nets south of Beaufort Inlet (proclamation M-30-2011)
2011	July 18- Oct 3	Area D1 closed to large mesh* gill nets due to turtle interactions (proclamation M-24-2011)
2012	Feb 2- Mar 28	The ASMA, Pamlico Sound, Pamlico, Pungo, Bay, and Neuse Rivers and the Cape Fear River exempted from Sea Turtle Settlement measures (four day fishing week, the mesh height, lead line and float requirements, and the 100 yard continuous length limit) for large mesh* gill nets to allow for a shad harvest season (proclamation M-6-2012).
2012	May 20 -	1,000 yards maximum large mesh* gill-net length, Beaufort Inlet to Hwy 58 Br (proclamation M-23-2012).
2012	May 20- Oct 14	Area D1 closed to large mesh* gill nets due to turtle interactions (proclamation M-23-2012). Annual closure of May 8-Oct 14 to be used for this area in future to avoid sea turtle interactions.
2012	Sept 26– Oct 15	PSGNRA closed to large mesh* gill nets due to sea turtle interactions (proclamation M-42-2012). After reopening October 15 (proclamation M-51-2012), sea turtle regulations in place for remainder of the season in PSGNRA
2012	Oct 15- Nov 30	Area D1 open to large mesh* gill nets (proclamation M-52-2012)
2012	Oct 8- Nov 30	2,000 yards maximum large mesh* gill-net length and must be present at nets by noon each day in Albemarle Sound and its tributaries (to limit sturgeon interactions and mortalities; proclamation M-49-2012)
2012	Oct 4- Nov 30	Southern portions of Croatan/Roanoke sounds subject to M-8-2010 due to turtle interactions
2013	Mar 7-	Albemarle, Currituck, Croatan, and Roanoke sounds north and west of Highway 64/264 bridges, Pamlico, Pungo, Bay, and Neuse rivers, and only in January-April for upper New and Cape Fear rivers, limit the use of large mesh* gill nets to four nights/week and 2,000 yards, except south of Beaufort Inlet allow 5 nights/week and maximum 1,000 yds (proclamation M-7-2013)

2013	May 8- Oct 14	Annual closure for large mesh* gill nets in area D1 (proclamation M-17-2013).
2013	Feb 7- Mar 7	Large mesh* gill net shad exemptions for the ASMA Feb 7 (proclamation M-2-2013) and Pamlico Sound and tributaries March 7 (proclamation M-7-2013).
2013	July 14- Oct 1	Use of large mesh* gill nets prohibited south of Highway 58 Bridge (area E) via proclamation M-20-2013 due to sea turtle interactions
2013	July 24- Oct 1	Use of large mesh* gill nets prohibited in Pamlico Sound/northern Core Sound due to sea turtle interactions (proclamation M-21-2013)
2013	Sept 1- Sept 11	Areas B and E closed until ITP approved (due to PSGNRA ITP not being extended another year)
2013	Oct 15 - Nov 30	Area D1 open to large mesh* gill nets (proclamation M-33-2013).
2014	Mar 18 -	Gill nets with mesh length greater than 5 inches must be equipped with tie downs 10 yards apart and can not be within 50 yards of the shore in the Neuse, Pamlico, and Pungo Rivers. Use of gill nets 5 inches or greater is prohibited within 10 feet of any point on the shoreline while set or deployed from June to October (proclamation M-10-2014)
2014	May 5 - Sept 15	Use of large mesh* gill-nets prohibited in Internal Coastal Waters to avoid discards of red drum. Major portions of areas A and C and the New River were allowed to open Jun 1-Sep 15 (proclamations M-16-2013 and M-21-2014)
2014	Sept 1 -	The remainder of area A is reopened from the red drum closure (proclamation M-25-2014).
2014	Sept 15-	The remainder of management unit C is reopened and all of management unit D2 is reopened from the red drum closure (proclamation M-29-2014).
2014	Sept 22	Management units B and E are opened to large mesh* gill nets (proclamation M-30-2014)
2014	Sept 24- Nov 2	Area E closed to large mesh* gill nets due to turtle interactions (proclamation M-31-2014), reopened via proclamation M-39-2014
2014	Oct 1-Oct 27; Oct 1- Nov 6	Area A closed to large mesh* gill nets due to turtle interactions (proclamation M-33-2014). Portions of western Albemarle Sound and Currituck reopened on Oct 27 (proclamation M-36-2014). Remainder of area A reopened Nov 6 (proclamation M-41-2014)
2014	Oct 15 - Nov 30	Area D1 open to large mesh* gill nets (proclamation M-34-2014).
2014	Oct 26- Nov 6	Shallow water portions of area B (PSGNRA) closed to large mesh* gill nets due to turtle interactions (proclamation M-37-2014), reopened via proclamation M-40-2014
2015	May 8 - Oct 14	Management unit D1 closed to large mesh gill nets (proclamation M-6-2015).**Annual ITP closure***
2015	May 18	Established attendance requirements for <5 inches for Subunit B.1 (small portion of management unit B located south and west of Oregon Inlet (M-7-2015).
2015	June 8	Closed management unit B to large mesh gill nets due to approaching allowable sea turtle interactions (M-10-2015).
2015	June 12	Closed management unit A to large and small mesh gill nets due to reaching allowable sea turtle interactions (M-11-2015).
2015	July 23	Closed management unit C to large and small mesh gill nets due to reaching allowable sea turtle interactions. The division requested a minor modification to the Sea Turtle Incidental Take Permit that combines the authorized takes for Management units A and C to provide more flexibility in managing the fishery and ensure that authorized take levels are not exceeded during the Incidental Take Permit year. For Management Units A and C the number of allowable takes had been reached (n=8) (M-12-2015).

2015	Sept 1	Management unit A opened to large and small mesh gill nets for the new ITP Year 2016 for the western part of the sound and Currituck Sound. All the eastern/southern areas (Croatan and Roanoke Sounds) will remain closed until early October to minimize interactions with sea turtles (M-13-2015).
2015	Sept 1	Management unit C opened to large and small mesh gill nets for the new ITP Year 2016 (M-14-2015).
2015	Sept 1	Management unit E closed to large mesh gill nets for the new ITP Year 2016 to minimize interactions with sea turtles (M-14-2015).
2015	Sept 1	Management unit B to remain closed large mesh gill nets to minimize interactions with sea turtles (M-14-2015).
2015	Sept 24	Management unit C closed for large mesh gill nets due to approaching Atlantic sturgeon allowed takes for the Fall 2015 Season (M-15-2015).
2015	Sept 30	Management unit A to open to large and small mesh gill nets for the new ITP Year 2016 for the western part of the sound. All the eastern/southern areas (south and east of line from Alligator River to 158 Bridge including Croatan and Roanoke Sounds) will open with south of the 64 bridge having sea turtle restrictions (i.e, overnight soaks, 4 day fishing week) (M-16-2015).
2015	Sept 30	Management units B and E open to large mesh gill nets (M-17-2015)
2015	Oct 17	Management unit B subunits closed to large mesh gill nets except the MGNRA due to sea turtle interactions (M-20-2015).
2015	Oct 17	Management unit A closed to large and small mesh gill nets due to sea turtle interactions (M-21-2015).
2015	Oct 26	Portions of Management unit A opened to large and small mesh gill nets (west of line from Laurel Point and Drummond Point and Currituck Sound (M-22-2015).
2015	Nov 2	Management unit A open to large and small mesh gill nets the western part of the sound. All the eastern/southern areas (south and east of line from Alligator River to 158 Bridge including Croatan and Roanoke Sounds) will remain closed (M-23-2015).
2015	Nov 2	Management unit D1 and remaining subunits of management unit B open to large mesh gill nets (M-24-2015).
2015	Nov 5	Management unit B closed to large mesh gill nets due to sea turtle interactions (M-25-2015).
2016	Feb 15	Management units B and C open to use of large mesh gill nets (M-1-2016).
2016	Feb 22	Management unit E (in portions) implements gear restrictions for the shad fishery (M-1-2016).
2016	Mar 3	Management unit A implements additional gill net restrictions for Subunit A-South of US-64-BYP/US-64, in accordance with the Sea Turtle and Atlantic Sturgeon ITPs (four nights per week (Tuesday - Friday) with 15 meshes deep, a maximum of 2,000 yards with 100-yards of continuous net, leaded bottom lines, prohibited to use floats, and must leave a space of 25-yards between sections of net; M-2-2016).
2016	April 10	Portions of Management unit E (upper Cape Fear River) closed to large mesh gill nets due to sturgeon interactions (M-5-2016).
2016	April 23	Management unit A closed to large mesh gill nets for the remainder of the spring 2016 season due to reaching allowable dead Atlantic sturgeon takes (M-6-2016).
2016	May 4	Management unit E closed to small mesh gill nets for remainder of ITP Year 2016 due to reaching allowable sea turtle takes (M-8-2016).
2016	May 9	Management unit D1 closed to large mesh gill nets (proclamation M-9-2016).**Annual ITP closure***

2016	June 1	Portions of management unit A open to large mesh gill nets (western) while maintaining closure of all anchored gill nets in the eastern portions to avoid interactions with sea turtles (M-10-2016).
2016	June 6	Management unit B closes to large mesh gill nets for remainder of ITP Year 2016 due to reaching allowable sea turtle takes (M-12-2016).
2016	June 7	Management unit A closed to large and small mesh gill nets for remainder of ITP Year 2016 due to reaching allowable sea turtle takes (M-13-2016).
2016	Sept 5	Management unit A open to large and small mesh gill nets for the new ITP Year 2017 for the western part of the sound, Currituck Sound, and the rivers. All the eastern/southern areas (Croatan and Roanoke Sounds) will remain closed until sea turtle abundance decreases to minimize interactions with sea turtles (M-15-2016).
2016	Sept 5	Portions of management unit B (subunits SGNRA2-4, MGNRA) open to large mesh gill nets for the new ITP Year 2017. Subunits SGNRA1 and CGNRA will remain closed until sea turtle abundance decreases to minimize interactions with sea turtles (M-16-2016).
2016	Sept 5	Management unit E open to small mesh gill nets (large mesh gill nets continually open through summer for the new ITP Year 2017. Portions of upper Cape Fear River and Northeast Cape Fear River remain closed to large mesh gill nets due to sturgeon interactions (M-16-2016).
2016	Oct 3	Remaining portions of management unit B (subunits SGNRA1 and CGNRA) open to large mesh gill nets for the new ITP Year 2017 (M-19-2016).
2016	Oct 1	Closed management unit C to large and small mesh gill nets due to sea turtle interactions (M-20-2016).
2016	Oct 15	Further portions of management unit A open to large and small mesh gill nets for the new ITP Year 2017 for the central part of the sound. All the eastern/southern areas (Croatan and Roanoke Sounds) will remain closed until sea turtle abundance decreases to minimize interactions with sea turtles (M-21-2016).
2016	Oct 17	Management unit D1 open to anchored large mesh gill nets (M-22-2016).
2016	Oct 31	Further portions of management unit A open to anchored large and small mesh gill nets for the new ITP Year 2017 for the central and eastern part of the sound. Croatan and Roanoke sounds will remain closed until sea turtle abundance decreases to minimize interactions with sea turtles (M-23-2016).
2016	Nov 2	Management unit B closed to anchored large mesh gill nets due to sea turtle interactions and the lack of fishermen compliance (M-24-2016).
2016	Dec 1	Management unit A small mesh anchored gill nets 3 though 3 3/4 ISM restrictions while removing attendance requirments for those small mesh anchored gill nets, and requiring small mesh anchored gill nets to be set so as to fish on the bottom and not exceed a vertical height of 48 inches (M-25-2016).
2016	Dec 5	Management unit C open to anchored large and small mesh gill nets (M-27-2015).
2016	Dec 16	Management unit A closed to anchored large mesh gill nets (all anchored gill nets >3.75 ISM) for the duration of the winter 2016-2017 season due to reaching allowable Atlantic sturgeon takes (M-32-2016).
2017	Jan 29	Portions of management unit A open to anchored large mesh gill nets (northern rivers) while maintaining closure of anchored large mesh gill nets in all other portions to allow directed gill net fisheries for catfish while minimizing interactions with Atlantic sturgeon (M-1-2017).
2017	Feb 6	Further portions of management unit A open to anchored large mesh gill nets (Alligator River/Currituck Sound) while maintaining closure of anchored large mesh gill nets in all other portions to allow directed gill net fisheries for catfish while minimizing interactions with Atlantic sturgeon (M-2-2017).

2017	Feb 15	Further portions of management unit A open to anchored large mesh gill nets (Alligator River/Currituck Sound) while maintaining closure of anchored large mesh gill nets in all other portions to allow directed gill net fisheries for catfish while minimizing interactions with Atlantic sturgeon (M-2-2017).
2017	Feb 15	Management units C, D1, D2, and E implements gear restrictions for the shad fishery (M-4-2017).
2017	March 3	Management Unit A open to the use of gill nets and allows gill net configurations for harvesting American shad by removing vertical height restrictions for up to 1,000 yards of gill net with stretched mesh lengths of 5 ¼ through 6 ½ inches while implementing additional gill net restrictions for management subunit A-South of US-64-BYP/US-64, in accordance with the Sea Turtle and Atlantic Sturgeon ITPs (M-5-2017).
2017	March 25	Removes management Unit A gill net configurations for harvesting American shad and maintains gill net restrictions for management subunit A-South of US-64-BYP/US-64, in accordance with the Sea Turtle and Atlantic Sturgeon ITPs (M-7-2017).
2017	April 3	Gill nets with mesh length greater than 5 inches must be equipped with tie downs 10 yards apart and can not be within 50 yards of the shore in the Neuse, Pamlico, and Pungo Rivers through December 31, 2017. Use of gill nets 5 inches or greater is prohibited within 10 feet of any point on the shoreline while set or deployed unless the net is attended from June to October (proclamation M-8-2017)
2017	May 1	Management unit A small mesh anchored gill net attendance requirement (through November 30, 2017) and closes portions of management unit A (Subunit A-South of US-64-BYP/US-64) to the use of anchored large and small mesh gill nets (M-9-2017).
2017	May 8	Management unit D1 closed to large mesh gill nets and implements attendance requirements for gill nets with a stretched mesh length less than 4 inches in Management Subunit B. 1. (proclamation M-10-2017).**Annual ITP closure***
2017	June 19	Management unit B open to large mesh gill nets with a stretched mesh length of 4 inches through 6 1/2 inches. Portions of management unit B (Inlet Corridors) remain closed to the use of gill nets with a stretched mesh length of 4 inches through 6 1/2 inches to minimize interactions with threatened and/or endangered species (M-11-2017).
2017	July 28	Closed management unit C to large and small mesh gill nets due to sea turtle interactions for remainder of ITP Year 2017 (M-12-2017).
2017	Sept 1	Portions of management unit B (subunits CGNRA, SGNRA1-3) closed to large mesh gill nets and management unit C opened to large and small mesh gill nets for the new ITP Year 2018. Subunits SGNRA1-3 and CGNRA will remain closed until sea turtle abundance decreases to minimize interactions with sea turtles (M-13-2017).
2017	Sept 25	Portions of management unit B (Subunits SGNRA1 - SGNRA3 and CGNRA) open to anchored large mesh gill nets for the new ITP year (September 1, 2017 – August 31, 2018) in accordance with the Sea Turtle ITP (M-14-2017)
2017	Sept 16	Management unit D1 open to anchored large mesh gill nets (M-17-2017)
2017	Sept 29	Further portions of eastern Albemarle Sound closed and maintains closures for the Croatan and Roanoke Sounds (except as described in Section IV.) in order to minimize interactions with threatened and/or endangered sea turtles (M-18-2017)
2017	Nov 9	Management unit D1 closed anchored large mesh gill nets due to reaching allowable sea turtle takes (M-19-2017)

Supplemental Table 2. Annual fish catch and effort data from the North Carolina large-mesh gillnet fishery, provided by the North Carolina Division of Marine Fisheries. The number of sea turtles observed and the percent mortality is also reported.

Year	Catch (kg)	Trips Reported	Kemp's ridley (# Obs.)	Kemp's ridley (% Mort.)	Green (# Obs.)	Green (% Mort.)	Loggerhead (# Obs.)	Loggerhead (% Mort.)
1994	1,417,848	26,016	-	-	-	-	-	-
1995	1,329,309	29,670	-	-	-	-	-	-
1996	1,267,284	27,496	-	-	-	-	-	-
1997	1,437,144	30,579	-	-	-	-	-	-
1998	1,546,324	26,582	-	-	-	-	-	-
1999	1,399,915	26,861	-	-	-	-	-	-
2000	1,504,863	30,407	-	-	-	-	-	-
2001	1,334,469	29,634	4	100	4	25	0	N/A
2002	1,362,711	26,075	1	0	6	0	6	0
2003	1,264,969	24,652	0	N/A	5	60	0	N/A
2004	1,160,945	23,323	7	71	12	33	1	0
2005	981,041	21,695	1	0	5	20	2	50
2006	1,110,225	23,752	5	40	8	38	4	25
2007	1,149,364	24,037	0	N/A	19	26	1	0
2008	1,181,423	23,554	2	100	16	50	1	0
2009	1,181,615	23,024	6	67	30	30	1	0
2010	909,166	17,579	16	31	27	19	3	0
2011	661,501	13,533	14	21	5	20	4	0
2012	770,541	16,109	4	25	19	21	0	N/A
2013	1,002,301	18,760	3	33	19	26	1	0
2014	674,926	12,319	4	0	21	24	1	0
2015	625,071	10,556	3	33	36	19	2	0
2016	566,460	10,409	12	17	30	33	0	N/A

Supplemental Table 3. Annual fish catch and effort data from the North Carolina small-mesh gillnet fishery, provided by the North Carolina Division of Marine Fisheries. The number of sea turtles observed and the percent mortality is also reported.

Year	Catch (kg)	Trips Reported	Kemp's ridley (# Obs.)	Kemp's ridley (% Mort.)	Green (# Obs.)	Green (% Mort.)	Loggerhead (# Obs.)	Loggerhead (% Mort.)
1994	1,368,268	13,871	-	-	-	-	-	-
1995	1,477,449	16,330	-	-	-	-	-	-
1996	1,257,011	14,542	-	-	-	-	-	-
1997	1,584,753	15,882	-	-	-	-	-	-
1998	1,548,712	14,282	-	-	-	-	-	-
1999	1,678,298	16,273	-	-	-	-	-	-
2000	1,570,099	14,619	-	-	-	-	-	-
2001	1,730,254	12,567	0	N/A	0	N/A	0	N/A
2002	1,564,372	12,186	0	N/A	0	N/A	0	N/A
2003	1,705,414	12,431	0	N/A	0	N/A	0	N/A
2004	1,282,377	10,192	0	N/A	0	N/A	0	N/A
2005	1,479,537	10,445	0	N/A	0	N/A	0	N/A
2006	982,144	9,383	0	N/A	0	N/A	0	N/A
2007	896,798	9,598	0	N/A	0	N/A	0	N/A
2008	1,004,153	10,375	0	N/A	0	N/A	0	N/A
2009	1,082,963	10,143	0	N/A	0	N/A	0	N/A
2010	1,292,469	9,063	0	N/A	0	N/A	0	N/A
2011	1,366,145	9,448	2	50	0	N/A	0	N/A
2012	964,359	8,316	0	N/A	0	N/A	0	N/A
2013	1,202,291	10,959	0	N/A	1	0	0	N/A
2014	1,157,717	9,686	0	N/A	1	0	0	N/A
2015	965,692	7,614	0	N/A	4	25	0	N/A
2016	780,363	7,052	0	N/A	3	33	0	N/A

Supplemental Table 4. Annual indices of turtle abundance in North Carolina waters. Data come from a fisheries independent gillnet survey (Program 915) data from the North Carolina Division of Marine Fisheries (Survey), reported strandings from the North Carolina Wildlife Resources Commissions' Division of Wildlife Management (Strand), and the predicted number of juvenile turtles that pass through the state's waters from a model by Putman et al. [2020]* (Model).

Species:	Kemp's ridley			Green			Loggerhead		
Index:	Survey	Strand	Model (thousands)	Survey	Strand	Model (millions)	Survey	Strand	Model (millions)
1994	-	-	-	-	-	-	-	-	-
1995	-	-	1.33	-	-	-	-	-	-
1996	-	-	1.19	-	-	0.16	-	-	7.51
1997	-	-	0.18	-	-	0.26	-	-	7.72
1998	-	51	2.92	-	38	0.21	-	222	7.45
1999	-	126	4.10	-	60	0.56	-	378	8.80
2000	2	89	4.72	0	129	0.39	0	576	9.56
2001	0	59	3.46	1	83	0.66	6	223	10.47
2002	2	47	1.63	1	87	0.36	0	284	9.27
2003	0	50	3.69	0	51	0.72	1	375	7.60
2004	1	79	5.80	0	94	0.52	2	288	7.02
2005	1	39	8.89	0	88	0.63	4	291	6.22
2006	2	52	6.61	0	58	0.81	1	238	6.53
2007	1	36	3.16	1	148	0.90	1	172	6.42
2008	2	67	9.11	1	333	1.47	1	199	6.53
2009	1	105	10.28	3	260	1.51	3	224	7.22
2010	5	175	17.84	3	386	1.23	4	293	6.10
2011	2	227	24.27	3	259	1.13	0	210	7.12
2012	4	113	5.32	1	174	1.64	1	186	7.55
2013	2	183	0.94	1	414	1.78	1	221	9.94
2014	5	187	103.81	0	262	3.86	2	178	10.21
2015	10	163	143.54	7	318	3.27	0	176	10.42
2016	7	155	7.78	3	2,266	3.40	0	243	7.63

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