NOAA FISHERIES

Southeast Regional Office

Summary of Coastal Migratory Pelagics FMP Biological Opinion

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Presentation Overview

- Section 7 Reinitiation Triggers
- List of Species Not Likely to be Adversely Affected
- Critical Habitat Not Likely to be Adversely Affected
- List of Species Likely to be Adversely Affected
- Estimation Methods for Species Likely to Have Take
- Overall Conclusion of Biological Opinion
- 3-Year Take Estimate
- Summary of Reasonable and Prudent Measures, Terms and Conditions

Reinitiation of Section 7 Consultation: General Requirements (50 CFR §402.16)

Re-initiation of formal consult is necessary when:

1) The amount or extent of taking specified in the Incidental Take Statement is exceeded,
2) New information reveals effects not considered,
3) The action is modified in a way that causes an effect not considered in the biological opinion,
4) **New species is listed or critical habitat designated that may be affected by the action**.

Species Not Likely to be Adversely Affected

Species	Effect Determination	Rationale
Blue, Sperm, and Sei Whales	Discountable	Species are generally found deeper than where fishery occurs
North Atlantic Right, Fin, and Humpback Whales	Discountable	Run around GN are constantly tended; existing ALWTRP prohibits GN use during times of year whales most likely to be in SE (Nov 15 – Apr 15)
Gulf Sturgeon	No Effect	Species is inshore of where fishery occurs
Corals	Discountable	GN used outside species' ranges; HL unlikely to contact bottom
GN = Gillnet, HL = Hook and Line		

Critical Habitat Not Likely to be Adversely Affected

Critical Habitat	Unit	Effect Determination	Rationale
North Atlantic Right Whale (Existing and Proposed)	N/A	No Effect	Fishery operations will have no impact on the physical and biological features needed for conservation
Elkhorn and Staghorn Coral ("*Acropora*")	Florida	Discountable	Fishery operations are unlikely to have an effect on the physical and biological features needed for conservation
NW Atlantic Loggerhead DPS	LOGG-N-3 thru N-36 (Nearshore Reproductive Habitat); N-1 and N-2 (Winter Concentration Habitat)	No Effect	Fishery operations will have no impact on the physical and biological features needed for conservation
	LOGG-N-17 and N-19 (Concentrated Breeding Habitat)	No Effect	
	LOGG-N-1, N-17 thru N-19 (Constricted Migratory Corridor Habitat)	Insignificant	Fishery operations are unlikely to have a meaningful effect on the physical and biological features needed for conservation
	LOGG-S-01 and S-02	Insignificant	

Species Likely to be Adversely Affected

Species	Anticipated Route of Effect	Take Estimated Using
Sea Turtles (green, loggerhead, hawksbill, Kemp's ridley, leatherback)	Entanglement in Gillnet Gear	SEFSC Trip Ticket Data; Observer Soak Time Data; Number of Observed Sea Turtle Captures in CMPR GNs; STSSN Sea Turtle Species Composition; Post-Release Mortality Rates from GN
Smalltooth Sawfish	Entanglement in Gillnet Gear	SEFSC Trip Ticket Data (Florida Only), Observer Soak Time Data, Anecdotal Evidence
Atlantic Sturgeon (Gulf of Maine, New York Bight, Chesapeake Bay, Carolina, and South Atlantic DPSs)	Entanglement in Gillnet Gear	SEFSC Trip Ticket Data; Observer Soak Time Data; Number of Observed Atlantic Sturgeon Captures in ALL Mid-Atlantic Sink GNs; DPS Genetic Information

DPS = Distinct Population Segment, GN = Gillnet

Sea Turtle Take Estimation Method

Captures

- Average CMP GN Trips per Year x Estimated Sets per Trip = CMP GN Effort
- Number of Observed Sea Turtle Takes ÷ Number of Observed CMP GN Sets = Sea Turtle CPUE
- Sea Turtle CPUE x CMP GN Effort = Estimated Sea Turtle Captures

Captures by Species

- Estimated Sea Turtle Captures x Sea Turtle Stranding and Salvage Data for Species Composition = Estimated Capture by Species

Sea Turtle Post-Release Gillnet Mortality

- Estimated Capture by Species x Estimated Post-Release Mortality = Estimated Number of Captures Causing Death by Species.

Atlantic Sturgeon Take Estimation Method

Captures

- Average North Carolina CMP Sink GN Trips per Year x Estimated Sets per Trip = North Carolina CMP Sink GN Effort
- Number of Observed Atlantic Sturgeon Takes in Mid-Atlantic Sink GN Sets ÷ Number of Observed Mid-Atlantic Sink GN Sets = Atlantic Sturgeon Sink GN CPUE
- Atlantic Sturgeon Sink GN CPUE x North Carolina CMP Sink GN Effort = Estimated Atlantic Sturgeon Captures

Captures by DPS

- Estimated Atlantic Sturgeon Captures x Estimated DPS Composition = Estimated Atlantic Sturgeon Captures by DPS

Smalltooth Sawfish Take Estimation Method

- Anecdotal information indicated 1 smalltooth sawfish capture via CMP GN in the past
- No additional information available
- Estimate 1 non-lethal smalltooth sawfish capture via CMP GN in the future over 3 years

All Take Estimated Over 3 Years

- Annual capture rates are highly variable and influenced by sea temperatures, species abundances, and other factors that cannot be predicted.
- 1-year estimated take levels is largely impractical
- 3-year time period used instead because it reduces the likelihood reinitiation of ESA consultation, while still allowing us to monitor how the fishery is affecting listed species versus our expectations

Anticipated Takes Over 3 Years

Species	Take Type	Total
Green sea turtle North Atlantic DPS	Nonlethal	22
	Lethal	9
Loggerhead sea turtle NWA DPS	Nonlethal	20
	Lethal	7
Kemp's ridley sea turtle	Nonlethal	6
	Lethal	2
Hawksbill sea turtle	Nonlethal	0
	Lethal	1
Leatherback sea turtle	Nonlethal	0
	Lethal	1
Smalltooth sawfish	Nonlethal	1
	Lethal	0
Atlantic sturgeon GM DPS (0-9%)	Nonlethal	2 (12)
	Lethal	0
Atlantic sturgeon NYB DPS (4-26%)	Nonlethal	4 (12)
	Lethal	0
Atlantic sturgeon CB DPS (7-18%)	Nonlethal	3 (12)
	Lethal	0
Atlantic sturgeon Carolina DPS (10-29%)	Nonlethal	4 (12)
	Lethal	0
Atlantic sturgeon SA DPS (46-79%)	Nonlethal	10 (12)
	Lethal	0

Conclusion

Continued Authorization of the CMP Fishery NOT Likely to Jeopardize the Continued Existence of:

- Sea Turtles (Green, Hawksbill, Loggerhead, Leatherback, Kemp's ridley)
- Smalltooth Sawfish
- Atlantic Sturgeon (Gulf of Maine, New York Bight, Chesapeake Bay, Carolina, and South Atlantic DPSs)

Reasonable and Prudent Measures (RPMs)

1) NMFS must ensure that any caught sea turtle, Atlantic sturgeon, or smalltooth sawfish is handled in such a way as to minimize stress to the animal and increase its survival rate.

2) NMFS must ensure that monitoring and reporting of any sea turtles, Atlantic sturgeon, or smalltooth sawfish encountered: (1) detects any adverse effects resulting from the federal CMP fisheries; (2) assesses the actual level of incidental take in comparison with the anticipated incidental take documented in this Opinion; (3) detects when the level of anticipated take is exceeded; and (4) collects improved data from individual encounters.

NOTE: None Require Specific Action by Council

Summary of Implementing Terms and Conditions

Terms and Conditions to Implement RPM #1:

- NMFS will provide CMPR permit holders with information on requirements for handling and/or reviving any incidentally caught sea turtles, Atlantic sturgeon, or smalltooth sawfish.

Terms and Conditions to Implement RPM #2:

- NMFS must maintain its current SDDP and distribute information regarding the specific information that should be reported by CMP gillnet vessels selected to participate the program prior to each reporting period.
- NMFS will use available observer data and other appropriate data to monitor incidental take.
- NMFS must continue to observe the gillnet component of the CMP fisheries and document interactions with sea turtles, smalltooth sawfish and Atlantic sturgeon.

Summary of Implementing Terms and Conditions (T&C) Con't

T&C to Implement RPM #2:

- SERO will work with SEFSC to monitor stranding data for records showing signs of being attributed to the CMP fisheries.
- NMFS will work with the U.S. Coast Guard to ensure at-sea enforcement of regulations during the run-around king mackerel fishery in the GOM
- SEFSC must submit an annual report to SER-PR that includes information on:
  - any take reported or observed
  - total reported gillnet effort by fishers selected for the SDDP
  - total reported gillnet effort data from the CFLP
  - observer coverage level obtained in the CMP gillnet fisheries
  - total observed effort
  - observed CPUEs for species observed taken
  - total take estimates for each species taken in the fisheries

Questions?

Sea Turtle Capture Calculations

Captures

2,864 CMP GN Trips/Year x 2 Sets/Trip = 5,728 CMP Sets/Year

5 Sea Turtles Take Observed ÷ 1,265 Observed CMP GN Sets = 0.004 Sea Turtles/Set

0.004 Sea Turtles/Set x 5,728 CMP Sets/Yr = 22.9 Sea Turtles/Year

22.9 Sea Turtles/Year x 3 Years = 68.7 Sea Turtles/3 Years

Captures by Species

68.7 Sea Turtles/3 Years x % Species Composition = Sea Turtle Take by Species

3-Year Estimated Take	Species	Species Composition	3-Year Estimated Take by Species
68.7	Loggerhead	38.70%	26.6
	Green	45.21%	31.1
	Leatherback	0.64%	0.43
	Hawksbill	1.42%	0.98
	Kemp's ridley	12.33%	8.47
	Unknown	1.69%	1.16

Sea Turtle Mortality Calculations

Captures by Species and Outcome

68.7 Sea Turtles/3 Years x Species Composition x 28.6% Estimated Maximum Post-Release Mortality =

Species	3-Year Estimated Take by Species	Estimated Post-Release Morality rate*	Estimated 3-Yr Mortalities	Total Takes (Lethal/Nonlethal)
Loggerhead	26.6	28.6 %	7.6	7/20
Green	31.1		8.89	9/22
Kemp's ridley	8.47		2.42	2/6
Leatherback**	0.43	N/A	--	1/0
Hawksbill	0.98		--	1/0

*Snoddy, J.E., and A.S. Williard. 2010. Movements and post-release mortality of juvenile sea turtles released from gillnets in the lower Cape Fear River, North Carolina, USA. Endangered Species Research 12:235-247.

**Biological Opinion used sea turtle stranding data to estimate species composition. Leatherbacks are likely to occur further offshore due to their pelagic habitat preferences. This may affect accuracy of strandings data (i.e., distance to drift before stranding). Thus, the biological opinion assumed 1 leatherback in lieu of the 1 unknown sea turtle.

Atlantic Sturgeon (ATS) Capture Calculations

Captures

122 North Carolina CMP Sink GN Trips per Year x 2 Sets per Trip = 224 CMP Sink GN Sets per Year

511 ATS Observed Captured in Mid-Atlantic Sink GN Sets ÷ 28,543 Total Observed Mid-Atlantic Sink GN Sets = 0.017 ATS per Set

0.017 ATS per Set x 224 CMP Sink GN Sets Annually = 4.01 ATS Capture per Year

4.01 ATS Capture per Year x 3 Years = 12.03 ATS Captures/3 Years

Captures by Distinction Population Segment (DPS)

12.03 ATS Captures/3 Years x Greatest % DPS Composition = ATS by DPS

Total 3-Year Estimated Take	DPS	Genetic Composition	3-Year Estimated Take by DPS (Rounded Up)
12.03	Gulf of Maine	0-9%	2 (1.08)
	New York Bight	4-26%	4 (3.12)
	Chesapeake Bay	7-18%	3 (2.16)
	Carolina	10-29%	4 (3.48)
	South Atlantic	46-79%	10 (9.48)

Reasonable and Prudent Measures (RPMs)

RPM No. 1: NMFS must ensure that any caught sea turtle, sturgeon, or smalltooth sawfish is handled in such a way as to minimize stress to the animal and increase its survival rate.

RPM No. 2: NMFS must ensure that monitoring and reporting of any sea turtles, sturgeon, or smalltooth sawfish encountered: (1) detects any adverse effects resulting from the federal CMP fisheries; (2) assesses the actual level of incidental take in comparison with the anticipated incidental take documented in this Opinion; (3) detects when the level of anticipated take is exceeded; and (4) collects improved data from individual encounters.

Implementing Terms and Conditions

The following terms and conditions implement RPM No. 1:

1) NMFS must distribute information to permit holders specifying handling and/or resuscitation requirements fishers must undertake for any caught sea turtles, sturgeon, or smalltooth sawfish.

The following terms and conditions implement RPM No. 2:

1) NMFS must maintain its current SDDP and improve future sea turtle data potentially reported under the SDDP by distributing educational outreach materials regarding the specific information to be reported and sea turtle identification to CMP gillnet vessels selected to participate in this program prior to each reporting period.
2) NMFS must use available observer data and any other appropriate data sources to update the 3-year take average as new data becomes available.

Implementing Terms and Conditions Con't

The following terms and conditions implement RPM No. 2:

3) NMFS must continue to observe the gillnet component of the CMP fisheries indirectly via the Atlantic Shark observer program in the CMP commercial gillnet sector. Observers must record information as specified on the SEFSC sea turtle life history form for any sea turtle captured. For any smalltooth sawfish captured, observers must record the date, time, location (latitude/longitude), water depth, estimated total length, estimated length of saw, tag ID(s) if present, gear, target species, tackle (hook brand, type, size, etc.), where hooked and/or entangled, and bait type. For any Atlantic sturgeon captured, observers must record the date, time, location (latitude/longitude), water depth, estimated total length, tag ID(s) if present, gear, target species, tackle (hook brand, type, size, etc.), where hooked and/or entangled, and bait type. Photographs must be taken whenever feasible to confirm species identity and release condition. If feasible, observers should also tag any sea turtles, sturgeon, or smalltooth sawfish caught and collect tissue samples for genetic analysis. This Opinion serves as the permitting authority for such tagging and tissue samples (without the need for an additional Section 10 permit). NMFS must ensure that any observers employed are equipped with the tools, supplies, training, and instructions to collect and store tissue samples. Samples collected must be analyzed to determine the genetic identity of individual sea turtles, sturgeon, or smalltooth sawfish caught in the fisheries. Retrieved dead sea turtles, sturgeon, and smalltooth sawfish must not be returned to the water. All dead carcasses of sea turtles must be placed on ice and transferred to the local STSSN coordinator. All dead observed Atlantic sturgeon must be reported to Ms. Kelly Shotts (Kelly.Shotts@noaa.gov or [727] 551-5603) and carcasses must be preserved (iced or refrigerated) until sampling and disposal procedures are discussed with NMFS. All dead carcasses of smalltooth sawfish must be placed on ice and transferred to SEFSC (Dr. John Carlson).

Implementing Terms and Conditions Con't

The following terms and conditions implement RPM No. 2:

4) SERO must collaborate with SEFSC to monitor stranding data for records showing signs of being attributed to the CMP fisheries.

5) SERO must work with the U.S. Coast Guard and to ensure at-sea enforcement of regulations during the run-around king mackerel fishery in the GOM.

6) SERO must collaborate with the SEFSC to submit an annual report to F/SER3 that includes the following information:

- detailed information on any take reported or observed
- total reported gillnet effort (yards fished x soak time [days]) by fishers selected for the SDDP
- total reported gillnet effort data from the CFLP
- observer coverage level obtained in the CMP gillnet fisheries
- total observed effort
- observed CPUEs for species observed taken
- total take estimates for each species taken in the fisheries