Protected Resources Updates for the Shrimp Advisory Panel (AP)

Gulf of Mexico Shrimp AP Meeting
March 19, 2024

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Protected Resources Updates Overview

- Specifically Requested By Shrimp AP:
  - Observed Sea Turtle Takes in Shrimp Trawls in 2023*
  - 2023 NOAA Fisheries Office of Law Enforcement TED Regulatory Compliance Data**
  - 2023 NOAA Fisheries Gear Monitoring Team Evaluations Summary***
  - 2022-2024 Cold Stun Events Synopsis****
- Additional Updates and News:
  - Update on Reinitiation/Monitoring of the April 2021 Biological Opinion on Southeast Shrimp Fisheries
  - Ongoing Smalltooth Sawfish Mortality Event in the Florida Keys
- Data and assistance from this report provided by *Matthew Walia, Office of Law Enforcement; **Canh Nguyen, SEFSC, Pascagoula Laboratory; ***Gary Decossas, Southeast Fisheries Science Center (SEFSC), Galveston Laboratory; ****Robert Hardy, Office of Protected Resources, and Kate Sampson, Greater Atlantic Regional Office.

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Observed Sea Turtle Captures in Shrimp Trawls in 2023

- In 2023, the NOAA Fisheries, Galveston Shrimp Observer Program observed 12 sea turtles captured in shrimp trawls:
  - Species =4 loggerhead, 4 Kemp's ridley, 2 green, and 2 unidentified hard-shell sea turtles
  - Locations= all in the Gulf of Mexico (2 off AL, 2 off FL, 2 off MS, 4 off LA, and 2 off TX).
  - Net Type= 7 in main nets, 5 in try nets,
  - Condition = one "fresh dead" (a green); two unresponsive [a green (died) and a loggerhead (resuscitated)]; and all the others were alive/conscious.
- Total # trips observed 54 trips (4 not entered yet) 1,050 sea days, 10,641 hours; ~ 2% coverage
- As a reminder, the observer data provided here are not total takes and mortalities in Southeast shrimp fisheries. Total takes and total mortality estimated at 5 year intervals using total effort data and Bayesian modeling approach

NOAA Fisheries, Office of Law Enforcement (OLE) 2023 TED Regulatory Compliance Data

- 131 TED-related incidents occurred in 2023: 110 were OLE initiated investigations and 21 were referrals from partner agencies.
- OLE closed 83 of the 131 incidents with no violations documented.
- Of the 48 remaining incidents:
  - 22 incidents were closed with compliance assistance of Fix it Final status.
  - 13 summary settlement offer penalties issued
    - Most ranged from $100-$1000
    - Involved TED bar spacing and/or flap length violations, BRDs being sewn shut or with weights added, bar spacing or flap length/ double cover violations
  - 2 written warnings were issued for various TED/BRD violations
  - 3 incidents were transferred to another agency
  - 1 incident was closed due to lack of evidence
  - 7 remain open

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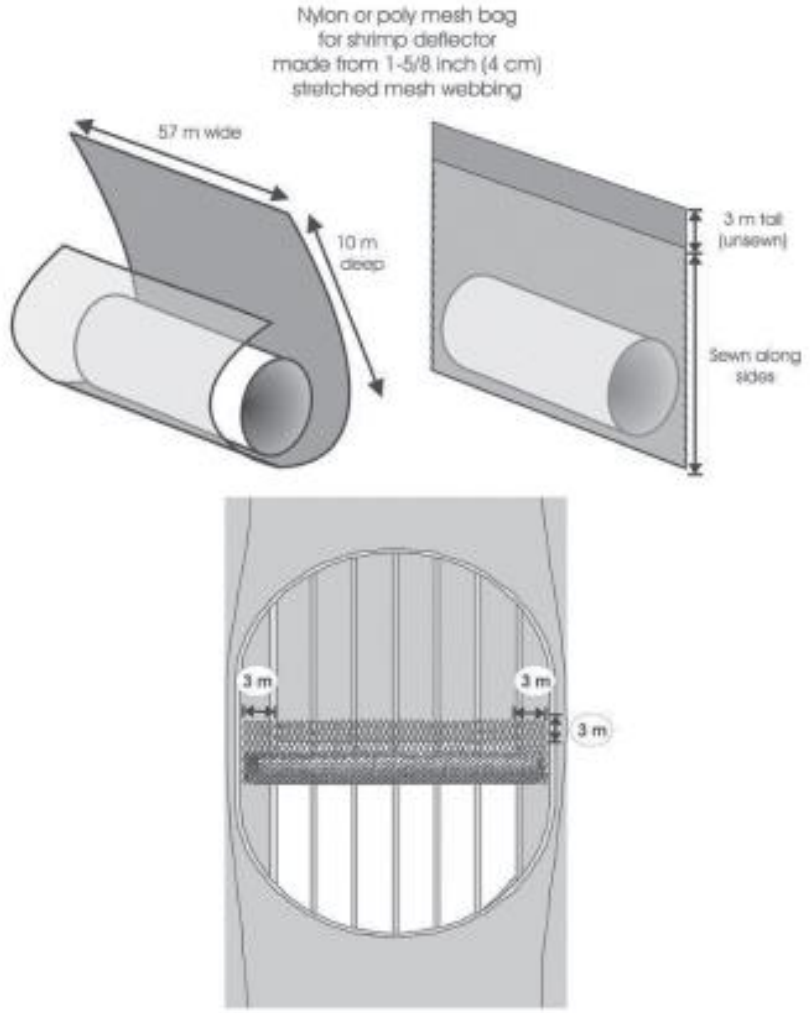
NOAA Fisheries Gear Monitoring Team (GMT) 2023 TED Evaluations Summary

- In 2023, the GMT inspected 388 TEDs.
- Violations in 2023 generally did not differ substantially from those documented in 2021 or 2022. Common violations observed include:
  - Bent bars causing bar spacing to exceed 4” max
  - Flap length exceeding 24”
  - Double Cover overlap exceeding 15”
  - Holes and tears in flaps (shark interactions)
- TEDs with angles exceeding 55 degrees (n=9)
- Notable increase in the adoption of an allowable TED modification known as the Chauvin Shrimp Deflector within the Northern Gulf shrimp fleet to reduce finfish bycatch.

Chauvin Shrimp Deflector Installation

- REGULATORY LANGUAGE
  - Chauvin shrimp deflector may be used on any approved TED design, but its installation must not reduce the minimum stretched measurements of the TED opening. The Chauvin shrimp deflector may not be installed with a bottom escape opening. The Chauvin shrimp deflector is constructed from a single piece of 3-inch (7.6-cm) inside diameter PVC pipe which measures 30 inches (76.2 cm) in length; the ends of the PVC pipe are left uncapped. A webbing or mesh bag is made and is used to encase the PVC pipe (Figure 19a to this part). The mesh bag is created using a single piece of 15/8inch (4.1 cm) stretched-mesh webbing made of nylon or polyethylene with dimensions 57 meshes wide by 10 meshes deep. The leading edge of the 57-mesh piece of webbing is attached around the PVC pipe and back to the row of meshes located 7 meshes down the 10-mesh length. The ends of the webbing are sewn together on each end forming a webbing bag to assure the PVC pipe remains encased in the webbing. This leaves a 3-mesh tail hanging from the encased PVC pipe. The 3-mesh tail of the encased PVC pipe is then sewn to a single row of meshes on the inside of the trawl along the 57-mesh edge, 3 meshes ahead of the forward cut of the TED escape opening. This would allow a 3-mesh overlap to the left and right of the forward cut (Figure 19b to this part).



FIGURES 19a AND 19b TO PART 223. CHAUVIN SHRIMP DEFLECTOR INSTALLATION DETAILS

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Chauvin Shrimp Deflector Installation

- Involves the use of a PVC pipe encased in a mesh bag, which is then attached across the leading edge of the TED opening after removing the TED flaps.
- Fishermen in the Northern Gulf are employing this method to reduce finfish bycatch. However, an issue has arisen where the PVC is not encased in a mesh bag and is instead directly attached to the leading edge, thereby restricting the opening.

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NOAA Fisheries, SEFSC Pascagoula GMT 2023 Recommendations For the Fleet

- Routinely check TED grids for bent bars and that bar spacing does not exceed 4”
- Fleet is experiencing a lot of holes and tears to TEDs and nets from shark interactions; any patches or repairs to holes in TED flaps should be followed by a compliance check by the crew to ensure that TEDs maintain compliance.
- Check TED angles for compliance. Remember to use the non-magnetic side of the angle meter for an accurate angle reading
- Fishermen utilizing Chauvin Shrimp Deflector are encouraged to carefully review regulations concerning the Chauvin Shrimp Deflector and to reach out to the GMT with any questions regarding this modification.
- If the crew is not sure how to check their TEDs for compliance, GMT is available to train captains and crew on how to check their TEDs for compliance.
  - **Call or text Canh Nguyen (228) 355-8372 or Jason Letort (228) 355-8667 or email ted.info@noaa.gov for specific locations and times. Contacting them will ensure you are on their schedule.**

Canh Nguyen demonstrating how to sew on a Turtle Excluder Device (TED) flap during a TED building workshop. Credit: NOAA Fisheries

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Cold Stun Events Synopsis

- The number of cold-stunned sea turtles that strand varies from year to year depending on the number of turtles in the area and on weather factors.
  - In the Southeast Region, factors include the number, frequency, duration, and severity of cold weather events determine the number and severity of cold stun events. If the winter is very mild, there may be few to no cold-stunned turtles; if there are several severe cold fronts over a short period of time with each one lasting several days, hundreds to even thousands of turtles may strand.
  - In the NER, especially MA, cold stun events occur every year, but the magnitude of those events is dependent on the speed of water temperature decrease and the wind patterns.
- Examples of Recent Cold Stun Event Data
  - For Texas, there were 1,600 cold-stuns in December 2022 and none for 2023. The last major cold stun season in Texas was 2021 (Storm Uri, 5,000+))
  - In Florida, there were approximately 160 and 66 cold-stuns during 2023 and 2024 (respectively)
  - n Massachusetts, there were 903 cold-stunned turtles during the 2022/23 season and 676 during the 2023/24 season. The largest cold stun season on record was in 2014, when 1250 turtles stranded.

Update on Reinitiation/Monitoring of the April 2021 Shrimp Biological Opinion

- In June 2023, SERO's Sustainable Fisheries Division (SFD) requested the Protected Resources Division (PRD) reinitiate Section 7 consultation on Southeast Shrimp Fisheries to address unanticipated giant manta ray mortalities in shrimp trawls and to consider new information on both giant manta rays and smalltooth sawfish.
- SERO developed a tentative schedule for (1) working with SEFSC to develop information needed to conduct the consultation and (2) collaborating with the Gulf and South Atlantic Councils and has been working through that process.

Update on Reinitiation & Monitoring of the April 2021 Shrimp Biological Opinion

- SERO has requested data and analyses from the Southeast Fisheries Science Center to support the reinitation, including:
  - Updated bycatch estimates for giant manta ray and smalltooth sawfish.
  - A population viability analysis (PVA) for giant manta ray within the Western North Atlantic Ocean off the United States evaluating the population's ability to recover in the context of ongoing bycatch, and considering uncertainty in initial population size, reproductive periodicity, bycatch mortality, and other key parameters.
  - An assessment of how increased levels of observer effort could reduce uncertainty in sawfish bycatch estimates in the fishery
- SERO has also requested the SEFSC formally initiate bycatch estimation for affected sea turtle species, for 2016-2020, consistent with the Bayesian model approach as documented in Babcock et al. (2018), which was employed in the April 26, 2021, biological opinion and incidental take monitoring requirements.

Update on Reinitiation & Monitoring of the April 2021 Shrimp Biological Opinion

- The initial target date for having all of the information needed for PRD to conduct the consultation was April 2024. Effort data availability for analyses have pushed back the schedule.
- SERO has requested analyses based on data thorough 2022, now available, by June, and through 2023 when available later this year.
- SERO will need to consider any proposed Shrimp FMP-driven actions and any shrimp actions the Gulf or South Atlantic Councils consider in response to key data as it becomes available.
- SERO will continue to share information with the Councils and Shrimp APs as it becomes available.

Ongoing Smalltooth Sawfish Mortality Event in the Florida Keys

- Strange sawfish behavior and deaths in the lower Florida Keys since late January.
- Reports indicate smalltooth sawfish are swimming erratically, thrashing in the shallows, and beaching themselves—often dying within hours.
- Affected sawfish are larger juveniles and adults, ranging in size from approximately 7 to 14 feet.
- As of March 14th, we're aware of 84 unique sawfish reports with 24 confirmed as mortalities (confirmed = necropsied, so the total mortality is expected to be significantly higher).
- Cause is currently unknown but under investigation.