

NOAA FISHERIES PROTECTED RESOURCES DIVISION
SEA TURTLE BYCATCH IN TRAWL FISHERIES – SUMMARY OF ISSUES

December 2021

BYCATCH ISSUE: Fisheries bycatch is the primary threat to sea turtles in the Greater Atlantic Region and occurs at high levels in several regional trawl fisheries. There have been 274 observed takes in bottom otter trawl trips from 2000-2019, and 73 percent were on trips where croaker, longfin squid, or summer flounder was the top landed species by haul weight. Since approximately 2000, we have been investigating gear modifications to reduce mortality of incidentally bycaught sea turtles, and our focus has been on the trawl fisheries with the highest bycatch of sea turtles in our region.

POTENTIAL MITIGATION: While final operational feasibility research is completed, NMFS is gathering early input and information from the public, fishing industry, and other stakeholder groups to inform any future measures. We are not at the proposed rule stage. However, given the results of previous research, we are considering:

- 1) Requiring Turtle Excluder Devices (TEDs) with a large escape opening in trawls that target Atlantic croaker, weakfish, and longfin squid to reduce injury and mortality resulting from accidental capture in these fisheries;
- 2) Moving the current northern boundary of the TED requirements in the summer flounder fishery (i.e., the Summer Flounder Fishery-Sea Turtle Protection Area) to a point farther north to more comprehensively address capture in this fishery;
- 3) Amending the TED requirements for the summer flounder fishery to require a larger escape opening to allow the release of larger hard-shelled and leatherback sea turtles; and
- 4) Adding an option allowing limited tow durations, if feasible and enforceable, in lieu of TEDs in these fisheries to provide flexibility to the fisheries.

GEAR TESTING: In 2007 and 2010, NMFS hosted workshops with the fishing industry, scientists, and other members of the public to discuss bycatch reduction technologies in New England and Mid-Atlantic trawl fisheries. NMFS has been exploring and testing several of the ideas generated at these workshops. Bycatch reduction measures (e.g., TEDs) have been tested in the croaker, longfin squid, and summer flounder trawl fisheries (see some results on the Northeast Fisheries Science Center gear research website: fisheries.noaa.gov/new-england-mid-atlantic/science-data/protected-species-gear-research). Data loggers that document tow durations have also been developed and tested and would allow fishermen to demonstrate compliance with limited tow times. Observer data show that tows of less than one hour reduce mortality of incidentally captured sea turtles.

We are creating a website that provides background information, descriptions of TED designs, measures under consideration, the type of information that would be helpful to future management (below), and how to comment and participate in public webinars (below). The website (<https://www.fisheries.noaa.gov/sea-turtle-bycatch-reduction-trawl-fisheries>) will be active soon.

OPPORTUNITIES FOR INPUT:

- **Opportunities**
 - Virtual stakeholder webinars (February 16, March 1, March 14, 6:30-8:30 p.m.)
 - Email address to accept comments (nmfs.gar.turtletrawl@noaa.gov)
 - Staffed phone line with open comment times (March 4, 8 a.m. to 3 p.m.; March 22, noon to 6 p.m.)

- **Information that would be helpful**

We are seeking input on the potential measures and welcome all feedback. The following questions include the type of information that would be helpful to shape potential management measures.

Mitigation Measures

- 1) Should we consider any other mitigation measures (e.g., other TED designs, time/area management) at this time?
- 2) What temporal and geographic scope is appropriate? Other sea turtle/fishery conservation measures in the Greater Atlantic Region (e.g., scallop dredges) occur from May 1 to November 30 west of 71° W longitude.
- 3) While originally considered only for the summer flounder fishery, should we consider limited tow durations in other trawl fisheries, including Atlantic croaker/weakfish and longfin squid fisheries?
- 4) How should we define the Atlantic croaker/weakfish, summer flounder, and longfin squid fisheries? Fisheries may be defined in a variety of ways including by geographic area, gear, and mesh size; target species; or permitted vessels, among others. Are the current definitions (see below) appropriate or are there other definitions that should be considered? Current definitions used in these fisheries include:
 - a) Fisheries regulations (50 CFR 697.2) define flynet (which is the type of net used in the croaker/weakfish trawl fisheries) as any trawl net, except shrimp trawl nets containing certified BRDs and approved TEDs and trawl nets that comply with the gear restrictions for the summer flounder fishery and contain an approved TED.
 - b) For fishery specifications and analytical purposes, NOAA fisheries defines a longfin squid trip as a trip with longfin squid comprising 40 percent of the total weight of retained species (e.g., 40 percent of landings), but for regulatory purposes, a directed longfin squid trip is anything over 2,500 lbs.
 - c) Summer flounder trawler is defined under the current TED requirements (50 CFR 222.102) as a vessel equipped with one or more bottom trawl nets and that is capable of, or used for, fishing for flounder or whose on-board or landed catch of flounder is more than 100 lb (45.4 kg).

Operational Considerations

- 5) Do you foresee any operational issues with the TEDs under consideration in your fishery?
- 6) Are there any considerations to indicate that the weakfish fishery should not be considered in conjunction with the Atlantic croaker fishery?
- 7) If data loggers are required in a fishery, they can also collect environmental data (e.g., bottom temperature) that could be accessed by fishermen at sea. Are there environmental parameters that would be informative to your fishing operations?

Economic Considerations

- 8) If you had an option to use limited tow durations (likely limited to approximately 1 hour), use a TED, or fish in a different area, which option would you choose? Please indicate the fishery or fisheries you participate in. With regards to fishing in a different area, please note that we are not yet specifying a particular area (or season) to be regulated. For instance, the range could extend from Massachusetts south or be focused on a more narrow area like south of New Jersey, and be in effect from May to November or some other shorter temporal window, so please consider how your response may be different given this.
- 9) Please describe any additional costs that you would experience if required to use a TED. This can include costs related to extra fuel, extra time due to added tows to compensate for potential catch loss, labor to install/maintain the TED, and/or other operational and catch considerations.
- 10) Some of the testing indicates that the TEDs will reduce unwanted bycatch (e.g., skates, rays) in some situations. Is the capture of these species an issue in your fishery and, if so, would reducing the bycatch have an economic impact or benefit?

- 11) If you were required to use a TED, would you tow longer, complete additional tows, or engage in another strategy to compensate for any reduction in landed catch?
- 12) Please help us to better understand the potential impacts of limited tow durations.
 - a) What are the range of tow durations that may be used from May through November?
 - b) What is a typical trip length, and how many tows do you complete in 24 hours?
 - c) If your tow durations were limited, would you complete additional tows to compensate for potential lost catch? What would be the impacts of those additional tows (e.g., gas, crew time, etc.)?