

**SCOPING DOCUMENT FOR PREPARATION OF A DRAFT  
ENVIRONMENTAL IMPACT STATEMENT  
TO REDUCE INCIDENTAL BYCATCH AND MORTALITY OF SEA TURTLES  
IN THE SOUTHEASTERN U.S. SHRIMP FISHERIES**

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## **PURPOSE OF THE SCOPING DOCUMENT**

We (NOAA Fisheries) intend to promulgate regulations to reduce the mortality of sea turtles in the shrimp fisheries of the southeastern United States. This scoping document is prepared as an aid to the public on the scoping process that we are about to undertake. The scoping process will be the first stage in a multi-step process required by the National Environmental Policy Act (NEPA) to ensure that federal agencies evaluate the environmental impacts of major federal actions. During the scoping process, the public is provided with an opportunity to assist us in determining the scope of issues that require analysis. The analysis of issues and the environmental impacts of the proposed actions will be presented in a Draft Environmental Impact Statement (DEIS), which will be made available for public comment.

On June 24, 2011 (76 FR 37050), we published a notice of intent to prepare an EIS and conduct scoping meetings on potential measures to reduce sea turtle bycatch in the shrimp fisheries. On May 10, 2012 (77 FR 27411), we published a proposed rule that, if implemented, would require all skimmer trawls, pusher-head trawls, and wing nets (butterfly trawls) to use TEDs in their nets. We also prepared a DEIS, which included a description of the purpose and need for evaluating the proposed action and other potential management alternatives, the scientific methodology and data used in the analyses, background information on the physical, biological, human, and administrative environments, and a description of the effects of the proposed action and other potential management alternatives on the aforementioned environments; a notice of its availability was published on May 18, 2012 (77 FR 29636). At the time the 2012 DEIS was prepared, information on the effects of the skimmer trawl fisheries on sea turtle populations was extremely limited. New information gained after the preparation of the 2012 DEIS indicated that a significant number of sea turtles observed interacting with the skimmer trawl fisheries (i.e., those found in shallow, inshore waters) had a body depth that would allow them to pass between the required maximum four-inch bar spacing of a standard TED and proceed into the back of the net (i.e., they would not escape the trawl net). Therefore, the conservation benefit of expanding the TED requirement to skimmer trawls, pusher-head trawls, and wing nets was much less than originally anticipated. As a result, we determined that a final rule to withdraw the alternative tow time restriction and require all skimmer trawls, pusher-head trawls, and wing nets to use TEDs was not warranted (February 7, 2013; 78 FR 9024).

Following the withdrawal of the final rule, we initiated additional TED testing, evaluating both small sea turtle exclusion and shrimp retention within the skimmer trawl fisheries. This testing has produced a TED grid with narrow bar spacing (i.e., less than the current four-inch bar spacing maximum) and escape-opening flap specifications that would allow small turtles to effectively escape the trawl net, which could be employed by skimmer and otter trawl vessels in areas where these small turtles occur.

Additionally, available information indicates the alternative tow time requirements are exceeded by the skimmer trawl fleets, though the extent that tow time requirements are exceeded by the skimmer trawl fleets is unclear. Tow times are inherently difficult to

effectively enforce due to the time required to monitor a given vessel, as well as the ability to do so covertly to observe unbiased fishing operations. Furthermore, many skimmer trawl vessels have increased the size and amount of gear fished beyond what was originally established within the fisheries, allowing them to fish in deeper water. In some cases, vessels are rigged with both skimmer trawl frames and outriggers for use with conventional otter trawl nets. As a result of these larger skimmer trawl nets, there is a possibility that a sea turtle could be captured within the mouth of the net and not visible during a cursory cod end inspection, a scenario that is compounded by the fact that many vessels fish at night. Due to these factors, we are re-evaluating the efficacy of turtle conservation requirements associated with the skimmer trawl fishery.

This scoping document will provide the public with information for their consideration and comment related to the management of the shrimp fisheries and their interactions with threatened and endangered sea turtles. This document describes the major issues, current management and legal requirements, and identifies potential management measures to reduce interactions, and in particular, lethal interactions, between sea turtles and trawl fisheries. We will use comments received during this scoping period in designing the options for rulemaking to reduce the take of sea turtles in commercial trawl fisheries. We will hold public scoping meetings in April 2016, and will accept comments through April 29, 2016.

We believe that public involvement is critical during the development and drafting of any regulatory action. Through public input, we will be better able to explore the full range of management alternatives. Therefore, we are seeking the comments from commercial and recreational fishermen, regional fishery management councils, the states, conservation and scientific communities, and the general public. We anticipate that additional issues and options will be identified by the public during the scoping meetings. These additional issues and options will also be considered when drafting the proposed rule. The resulting regulation will likely affect commercial trawlers in the shrimp fisheries.

It is important to note that the potential alternatives presented in this document are not the final management alternatives and may not be analyzed in the NEPA EIS process. Also, the options presented in this document are not necessarily endorsed by us at this time. Rather, these represent a number of management measures, not necessarily mutually exclusive of each other, that we have developed over the last several years. This document represents our best efforts to capture a range of viewpoints on this subject. We will consider these options, as well as other options provided by the public, through the scoping process when developing management alternatives to reduce the mortality of sea turtles in fisheries and to meet the goals of the Endangered Species Act (ESA).

## STATUS OF SEA TURTLES

All sea turtles that occur in U.S. waters are listed as either endangered or threatened under the ESA. The Kemp's ridley (*Lepidochelys kempii*), leatherback (*Dermochelys coriacea*), and hawksbill (*Eretmochelys imbricata*) turtles are listed as endangered. The green (*Chelonia mydas*) and the Northwest Atlantic Ocean distinct population segment (DPS) of the loggerhead (*Caretta caretta*) are listed as threatened, except for breeding populations of green sea turtles in Florida and on the Pacific coast of Mexico, which are listed as endangered; on March 23, 2015 (80 FR 15271), NOAA Fisheries and U.S. Fish and Wildlife Service (USFWS) proposed to remove the existing ESA listings for the green sea turtle and, in their place, list three endangered (Mediterranean, Central West Pacific and Central South Pacific) and eight threatened (North Atlantic, South Atlantic, Southwest Indian, North Indian, East Indian-West Pacific, Southwest Pacific, Central North Pacific, and East Pacific) DPSs.

NOAA Fisheries and the USFWS have joint jurisdiction under the ESA to protect and recover sea turtles. The services are required under the ESA to "seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this Act." Therefore, the services seek to address the threats to the recovery of sea turtle populations. We have the lead for in-water conservation of sea turtles.

Sea turtles are incidentally taken and killed as a result of numerous activities, including fishery-related activities in the Gulf of Mexico and along the Atlantic seaboard. Under the ESA and its implementing regulations, taking sea turtles is prohibited, with exceptions identified in 50 CFR 223.206, or if in accordance with the terms and conditions of a biological opinion issued under section 7 of the ESA or an incidental take permit issued under section 10 of the ESA.

To reduce the likelihood of sea turtle bycatch in fisheries, we have promulgated several regulations. Beginning in the late 1980s and into the early 1990s, we required shrimp fishermen in the Gulf of Mexico and south of the North Carolina border to use TEDs. More recently, we have extended that requirement into the flounder fishery south of the North Carolina border. We have also placed restrictions on the use of gillnets in Pamlico Sound, North Carolina. We later restricted the use of gillnets with stretched mesh size larger than 8 inches (20.3 cm) in the Mid-Atlantic Exclusive Economic Zone. In the Chesapeake Bay, we required modified pound net leaders in order to reduce sea turtle bycatch. In the Atlantic, Gulf of Mexico, and Caribbean Sea, pelagic longline vessels are required to use circle hooks with certain bait combinations, have onboard sea turtle release equipment, and comply with specified sea turtle handling and release protocols. Lastly, in the Gulf of Mexico, we restricted the bottom longline fishery targeting reef fish with effort reductions, time and area closure, and limits on amount of on-board gear.

In 2007, we published a rule under the ESA to require fishing vessels that are identified through an annual determination process to take observers at our request. Through this process, we will be able to have a better understanding of sea turtle interactions in state and federal fisheries.

## **ADDITIONAL BACKGROUND**

The incidental taking of turtles during shrimp trawling is exempted from the taking prohibition of section 9 of the ESA if the conservation measures specified in the sea turtle conservation regulations (50 CFR 223) are followed. The regulations require most shrimp trawlers operating in the southeastern United States (Atlantic and Gulf areas, see 50 CFR 223.206) to have a NOAA Fisheries-approved TED installed in each net that is rigged for fishing to provide for the escape of sea turtles. Currently approved TEDs include single-grid hard TEDs and hooped hard TEDs conforming to a generic description, and one type of soft TED – the Parker soft TED (see 50 CFR 223.207). However, skimmer trawls, as well as pusher-head trawls and wing nets (butterfly trawls), may employ alternative tow time restrictions in lieu of TEDs, pursuant to 50 CFR 223.206(d)(2)(ii)(A). The alternative tow time restrictions limit tow times to 55 minutes from April 1 through October 31, and 75 minutes from November 1 through March 31.

TEDs incorporate an escape opening, usually covered by a webbing flap, which allow sea turtles to escape from trawl nets. To be approved, a TED design must be shown to be 97% effective in excluding sea turtles during testing based upon specific testing protocols (50 CFR 223.207(e)(1)). Most approved hard TEDs are described in the regulations (50 CFR 223.207(a)) according to generic criteria based upon certain parameters of TED design, configuration, and installation, including height and width dimensions of the TED opening through which the turtles escape.

On February 21, 2003, we issued a final rule (68 FR 8456), amending the sea turtle conservation regulations to protect large loggerhead, green, and leatherback sea turtles. The February 2003 final rule requires that all shrimp trawlers fishing in the offshore waters of the southeastern United States (Atlantic and Gulf areas) and the inshore waters of Georgia and South Carolina use either a double cover flap TED, a single-grid hard TED with a 71-inch (180-cm) opening, or a Parker soft TED with a 96-inch (244-cm) opening in each net rigged for fishing. In inshore waters, except those of Georgia and South Carolina, the rule allows the use of a single-grid hard TED with a 44-inch (112-cm) opening, a Parker soft TED with a 56-inch (142-cm) opening, and a hooped hard TED with a 35-inch (89-cm) by 27-inch (69-cm) escape opening.

## **POTENTIAL ALTERNATIVES TO REDUCE SEA TURTLE MORTALITY**

**Alternative 1 (No Action):** This alternative would allow the shrimp fisheries to be fished in the same manner as they are currently fished. The current TED requirements would remain in place and no additional measures would be required to reduce potential sea turtle interactions.

**Alternative 2:** This alternative would withdraw the alternative tow time restriction at 50 CFR 223.206(d)(2)(ii)(A)(3), and require skimmer trawls, pusher-head trawls, and wing nets (butterfly trawls) rigged for fishing to use a currently-approved TED or a modified TED with narrow bar spacing (i.e., less than the current four-inch bar spacing maximum) and lighter webbing in the escape opening flap. This could apply to all vessels, vessels of a certain length, or only to vessels fishing in specific areas.

**Alternative 3:** This alternative would require all trawlers (i.e., skimmer, pusher-head, butterfly, and otter trawlers) rigged for fishing to use a currently-approved TED or a modified TED with narrow bar spacing and lighter webbing in the escape opening flap. This could apply to all vessels, vessels of a certain length, or only to vessels fishing in specific areas.

**Alternative 4:** This alternative would close waters (area to be determined) to shrimp trawling during a specific time frame (period to be determined). This alternative could apply to all shrimp vessels or only to a specific sector of the fishery (e.g., otter trawlers, skimmer trawlers, etc.).

## **FISHERIES DESCRIPTION**

A complete description of the affected fisheries and their effects on the human environment can be found in the Gulf of Mexico Fishery Management Council's *Fishery Management Plan for the Shrimp Fishery of the Gulf of Mexico, U.S. Waters* (GMFMC 1981) and its subsequent plan amendments, as well as the South Atlantic Council's *Fishery Management Plan for the Shrimp Fishery of the South Atlantic Region* (SAFMC 1993) and its subsequent plan amendments. The following summarizes the gear used within the shrimp fisheries.

Various types of gear are used to capture shrimp, including but not limited to: cast nets, haul seines, stationary butterfly nets, wing nets (butterfly trawls), skimmer nets, traps, and beam trawls. The otter trawl, with various modifications, is the dominant gear used in offshore waters. A basic otter trawl consists of a heavy mesh bag with wings on each side designed to funnel the shrimp into the "cod end" or "tail bag." A pair of otter boards or trawl doors positioned at the end of each wing hold the mouth of the net open by exerting a downward and outward force at towing speed.

Shrimp trawl nets are usually constructed of nylon or polyethylene mesh webbing, with individual mesh sizes ranging from as small as 1-1/4 – 2 inches. The sections of webbing are assembled according to the size and design (usually flat, balloon, or semi-balloon) of trawl desired, which affects the width and height of the trawl's opening and its bottom-tending characteristics. The tongue or "mongoose" design incorporates a triangular tongue of additional webbing attached to the middle of the headrope pulled by a center towing cable, in addition to the two cables pulling the doors. This configuration allows the net to spread wider and higher than conventional nets and as a result has gained much popularity for white shrimp fishing.

Until the late 1950s, most shrimp vessels pulled single otter trawls, ranging from 80 to 100 feet (ft) in width, directly astern of the boat. Double-rig trawling was introduced into the shrimp fleet during the late 1950s. The single large trawl was replaced by two smaller trawls, each 40-50 ft in width, towed simultaneously from stoutly constructed outriggers located on the port and starboard sides of the vessels. The advantages of double-rig trawling include: (1) increased catch per unit of effort; (2) fewer handling problems with the smaller nets; (3) lower initial gear costs; (4) a reduction in costs associated with damage or loss of the nets; and (5) greater crew safety.

In 1972, the quad rig was introduced in the shrimp fisheries, and by 1976 it became widely used in the EEZ of the western Gulf. The quad rig consists of a twin trawl pulled from each outrigger. One twin trawl typically consists of two 40- or 50-ft trawls connected to a center sled and spread by two outside trawl doors. Thus, the quad rig with two twin trawls has a total spread of 160-200 ft versus the total spread of 110 ft in the old double rig of two 55-ft trawls. The quad rig has less drag and is more fuel efficient. The quad rig is the primary gear used in federal waters by larger vessels. Smaller boats and inshore trawlers often still use single or double-rigged nets.

Try nets are small otter trawls about 12 to 16 ft in width that are used to test areas for shrimp concentrations. These nets are towed during regular trawling operations and lifted periodically to allow the fishermen to assess the amount of shrimp and other fish and shellfish being caught. These amounts in turn determine the length of time the large trawls will remain set or whether more favorable locations will be selected.

Butterfly nets (wing nets or “paupiers”) were introduced in the 1950s and used on stationary platforms and on shrimp boats either under power or while anchored. A butterfly net consists of square metal frame which forms the mouth of the net. Webbing is attached to the frame and tapers back to a cod end. The net can be fished from a stationary platform or a pair of nets can be attached to either side of a vessel. The vessel is then anchored in tidal current or the nets are “pushed” through the water by the vessel.

Vietnamese fishermen began moving into Louisiana in the early 1980s and introduced a gear called the “xipe” or “chopstick” net around 1983. The chopstick was attached to a rigid or flexible frame similar to the butterfly net; however, the frame mounted on the bow of the boat was attached to a pair of skids and fished by pushing the net along the bottom. As with butterfly nets, the contents of the net could be picked up and dumped without raising the entire net out of the water as is necessary with an otter trawl.

The skimmer trawl was developed for use in some areas primarily to catch white shrimp, which has the ability to jump over the cork line of standard trawls while being towed in shallow water. The skimmer net frame allows the net to be elevated above the water while the net is fishing, thus preventing shrimp from escaping over the top. Owing to increased shrimp catch rates, less debris or bycatch, and lower fuel consumption experienced by otter trawlers, the use of skimmer nets quickly spread throughout Louisiana, Mississippi, and Alabama.

The basic components of a skimmer trawl include a frame, the net, heavy weights, skids or “shoes,” and tickler chains. The net frame is usually constructed of schedule 80 steel or aluminum pipe or tubing and is either L-shaped (with an additional stiff leg) or a trapezoid design. When net frames are deployed, they are aligned perpendicularly to the vessel and cocked or tilted forward and slightly upward. This position allows the net to fish better and reduces the chance of the leading edge of the skid digging into the bottom and subsequently damaging the gear. The frames are maintained in this position by two or more stays or cables to the bow. The outer leg of the frame is held in position with a “stiff leg” to the horizontal pipe and determines the maximum depth at which each net is

capable of working. To the bottom of the outer leg is attached the skid or “shoe,” which allows the frame to ride along the bottom, rising and falling with the bottom contour. Tickler chains and lead lines comprise the bottom of this gear.

In the past two decades, the skimmer trawl has become a major gear in the inshore shrimp fisheries in the northern Gulf and also has some use in inshore North Carolina. Information from Louisiana Department of Wildlife and Fisheries indicate there were 6,705 skimmer net licenses sold in 2010; Louisiana issues a license for each net, so this approximates a universe of approximately 3,300 skimmer vessels in Louisiana (LA DWF statistics). The Mississippi Department of Marine Resources does not differentiate gear type within its shrimp fishery, but current estimates indicate there are approximately 200 skimmer boats in the Mississippi shrimp fishery (Dale Diaz, Mississippi Department of Marine Resources, pers. comm.), and likely the same number of skimmer boats in the Alabama fishery. Skimmer vessels in North Carolina have declined in recent years, from 99 vessels in 2006 to 64 active vessels in 2010 (NC DMF statistics).

## **SCHEDULE OF PUBLIC SCOPING MEETINGS**

The dates, times, and locations of the meetings are scheduled as follows:

1. *Morehead City, NC* – April 13, 2016, 2 p.m. - 4 p.m., Crystal Coast Civic Center, 3505 Arendell Street, Morehead City, NC 28557.
2. *Larose, LA* – April 18, 2016, 4 p.m. - 6 p.m., Larose Regional Park and Civic Center, 307 East 5th Street, Larose, LA 70373.
3. *Belle Chasse, LA* – April 19, 2016, 4 p.m. - 6 p.m., Belle Chasse Community Center, 8398 Highway 23, Belle Chasse, LA 70037.
4. *Biloxi, MS* – April 20, 2016, 5 p.m. - 7 p.m., Biloxi Visitor’s Center, 1050 Beach Boulevard, Biloxi, MS 39530.
5. *Bayou La Batre, AL* – April 21, 2016, 2 p.m. - 4 p.m., Bayou La Batre Community Center, 12745 Padgett Switch Road, Bayou La Batre, AL 36509.