

Fisherman



Shrimp trawler with nets up

Objectives:

- *Understand the fisherman's role in loggerhead conservation.*
- *Understand how fishermen directly and indirectly affect sea turtle populations.*
- *Consider the effects of regulations on fisheries in general and fishermen in particular.*
- *Consider a fishermen's opportunities to voice his/her concerns.*

John Sampson writes a check for \$300 and arranges a time for the delivery of his new Turtle Excluder Device (TED). Although this is a lot of money for John, he has decided that buying one is preferable to spending the time and effort to construct his own. Besides, this TED should last a long time - about as long as his trawl net. John must install a TED in his net to fulfill regulations established by the National Marine Fisheries Service (NMFS). However, in some areas with extensive debris that might clog the TED, a TED is not used, and limited tow-times are imposed instead. Sometimes NMFS closes areas to shrimping altogether if neither TEDs nor tow-time limits will adequately protect sea turtles. Although no one has ever monitored John's TEDs or made sure he was using them in his nets, there is always the chance that his gear will be inspected either at the dock or at sea, so he'd rather follow procedure than face the fines.

John reflects back on the late 1980s when TEDs were not required. The loggerhead sea turtle was listed as a threatened species under the Endangered Species Act (ESA) in 1978, but it wasn't until 1990 that NMFS required all shrimpers to use TEDs in their trawl nets. Turtles were drowning because they could not surface for air when trapped in a trawl net, and, as a consequence, their survival as a species was threatened.

These days when a sea turtle is caught in a trawl net, it hits the metal grate-like structure in the TED and is directed out of the net through a trapdoor-like flap. Shrimp are retained in the net because they are small enough to easily pass through the metal grate.

In addition to these direct takes, turtles have been indirectly affected by shrimp trawling. As the nets drag along the ocean floor, they damage benthic communities and take many species which turtles rely upon for food. It is argued that the damage of loggerhead habitat and food sources can decrease its population size.

"I'm torn in my opinion of TEDs," confesses John. "On one hand, they are a hassle financially and technically – it's just one more piece of equipment that I must install and maintain. In addition, they can be quite heavy and may even increase the risk of injury to me and my crew. On the other hand, however, TEDs do seem to be effective at reducing the incidental catch of juvenile and adult turtles without significantly decreasing the amount of shrimp I catch. If I'm going to change my gear and be inconvenienced, I want my efforts to make a difference and aid in the recovery of sea turtle populations. And, I think my efforts *do* make a difference. The gear works pretty well. This means I don't have to spend as much time dealing with turtles as I used to. I can focus on my shrimping." NMFS has concluded that 97% of sea turtles are excluded by TEDs, and there is some indication that loggerhead populations are increasing since the devices have been required. Recently the TED regulation has been modified, and shrimp fishermen are now required to use TEDs with bigger openings to facilitate the escape of larger turtles such as leatherbacks. This new design is also good for the fishery as it allows large debris to pass out of the net quickly and thus retain more shrimp.

John and other U.S. shrimpers are frustrated because they are required to use TEDs while shrimpers in other countries are not. "To put it simply, it's not fair. All of us should be on the same playing field and face the same rules. If we're required to use TEDs so should everyone else out there," says John. "Although the federal government now requires all imported shrimp to have been caught by boats using TEDs, international use is not monitored adequately and many still may not be using them."

Despite using TEDs, John will occasionally pull up a sea turtle in his net. This is termed by-catch, the incidental catch of any non-targeted species. When he catches a turtle, John is faced with performing time consuming data collection and resuscitation techniques. "It's really a pain to catch a turtle. Because they're considered threatened under the ESA, the government wants us to measure, untangle, and release the turtles. Most of us, myself included, do. But I'm sure there are guys 15 miles from land who are tempted to just toss the turtle overboard and forget about all the data collection."

John is perturbed by regulations because they not only take time away from fishing but are imposed by people removed from the shrimp fishing industry. "How well do these NMFS officials really understand what's going on out there in the sea? It's me, not them, who's out there everyday, yet they think they should be able to regulate how I fish. It's frustrating when they impose regulations that protect sea turtles that aren't

doing anyone any good and make it more difficult for me to make a living providing shrimp that people need.”

John's buddies who work in other fisheries complain about sea turtles as well. Dale, who is a longliner and catches Atlantic swordfish and bluefin tuna, was recently required to switch from J hooks to circle hooks and to change bait, both of which were expensive modifications, so that fewer sea turtles would be caught incidentally. “Charlie fishes with pound nets in the Chesapeake Bay, a place where juvenile loggerheads from the northern stock spend a significant amount of time,” remarks John, “and he tells me that turtles go into the nets because they know they hold a concentrated supply of food. The turtles swim in for a meal and become entangled in the nets. Most turtles caught in pound nets are not harmed - they can still come to the surface to breathe and don't seem to be hurt by the net itself. However, they are quite a nuisance – they eat Charlie's catch and occupy lots of space in the net. Additionally, clearing them from the nets, measuring them, and recording data takes some time. It's especially frustrating when you get the same turtle in the same pound net several times a season.” Because turtles can get trapped in pound nets, it has been illegal since 2004 to place pound nets offshore during the loggerhead migration season. Another of John's friends, Sam, uses whelk pots. Occasionally turtles can get tangled in the line that runs between the pot on the bottom of the ocean and the buoy on the surface, but other than that, turtles are rarely caught with pots. Turtles do, however, damage the pots when they try to get at the bait or catch in the pots.

John and his friends have several outlets through which they can express their opinions. “We occasionally go to council meetings to voice our concerns about fishing regulations that are intended to protect sea turtles. Sometimes we feel like our comments matter, but usually that's only when they are thinking about imposing a new regulation. Once a regulation is imposed, they quickly move on to creating new rules and rarely inquire about how the old ones are working.” Fishermen also have the opportunity to comment on regulations while they are still in the development process.

Despite the difficulties with regulations and by-catch, John says he loves shrimping and will keep doing it. “It's in my blood, I guess – my granddad was a shrimper, my dad was a shrimper. It's just what we do.”

Transcript: Fisherman Crowder TrawlsBad.wmv

“I have environmentalist friends that say trawls are bad for the benthic habitat for fishing. So in a way putting TEDs into the trawls maintains a technology that maybe we ought of should just get rid of. Maybe we shouldn't trawl. And I said, “Well, until everyone agrees to that, I want TEDs in the trawls because otherwise the turtles will be gone,” you know. So you could argue that trawls are just a bad gear that does a lot of damage. It has a lot of by-catch.”

Transcript: Fisherman Epperly BiggerTED.wmv

“Even though Kemp’s ridleys could get out of what was the minimum requirements at that time, sub-adult loggerheads and greens could not at a fairly high rate like in the eastern Gulf of Mexico some years it was 90% of them that were stranding down the beaches could not have fit through the TEDs as required by the Gulf of Mexico. So now the requirements are such that a leatherback you get out of the net.”

Transcript: Fisherman Mansfield fishermen.wmv

“We have been exceedingly lucky. We have had some excellent folks helping us out and providing us with turtles and data. However, they’re not scientists and also, it’s not their priority, they don’t want to, you know. If a storm is coming, they’re not going to care about the turtle. They are just going to dump it over the side, and not worry about calling us to get out there or if they have other priorities or if they have a huge catch, they don’t have room for a turtle.”

Questions:

1. *John and his crew are shrimping 10 miles off the coast of Louisiana . As far back as the four can remember, this is the best catch they have ever had. The conditions seem to be perfect. And it could not have come at a better time – the season’s catch has been far below average and the crew is feeling the financial crunch. These conditions might not last much longer. So they are shrimping as hard as they can. The next time they haul in the nets, they find that a large loggerhead has become trapped. What do NMFS regulations require they do? What should John and his crew do?*
2. *Where do you draw the line between helping fishermen and protecting loggerhead sea turtles? Should the economic wellbeing of humans take precedence over the conservation of an endangered or threatened species? What amount of human expense is reasonable when considering the protection of a species such as the loggerhead sea turtle?*
3. *How would you suggest that policy makers and regulating agencies such as NMFS collaborate with fishermen to develop regulations that would benefit sea turtles while minimizing negative impacts on the fishing industry?*
4. *John has to pay for his own TED and Dale has to pay to replace his J hooks with circle hooks. Both have to take time away from shrimping and longlining respectively to remove turtles from nets and hooks, resuscitate the turtle if possible, and collect and record data. Should they be compensated for the time and money they lose? Why or why not? If so, who should compensate them?*