

Shrimp Fishing in the Intercoastal Waterways of North Carolina: Is the Catch of the Day
Pulling in Too Much?

Troy N. West

One late August night, my dad and I headed down to Sneads Ferry, prepared for a night of floundering. When floundering, one can scan the bottom of shallow areas with lights, hoping to spot flounder of legal size to gig (a gig is a long pole with metal barbed spikes at the end). This particular night was perfect; the moon was full, there was a light wind, and the tide had just hit high slack (the time when the tide is at its highest before starting to go down). There was one problem though; no matter where we went, the bottom was still difficult to see due to all the silt in the water. This time of year was shrimping season and the continual churning of the water during the day and night had pretty much ruined our night of floundering. The flounder that we did manage to spot through the murky water were too small to even keep, so we left around twelve in the morning, empty handed and disgusted.

My family has been fishing in the intercoastal waterways around the New River Inlet for over fifty years now and has seen a steady decline of fish in the waterways. North Carolina is the only state in the Southeast that still allows shrimping to continue in the intercoastal waterways. Fish breed and grow in the intercoastal area before they are able to go out into the ocean. The gear used to catch the shrimp scrapes the bottom of the ocean floor and gathers up not only shrimp, but fish as well; this winds up killing a lot of fish. Consequently, the amount of flounder in the area has severely decreased over the years. In years past, a person could go out on a night and be able to produce a nice cooler full of large flounder averaging about 20 inches long each; now one would be lucky to comb the bottom all night and pick up even three of legal

length. It is these experiences that have led me to contend that shrimping in the intercoastal waterways, whether recreational or commercial, should be banned. In this paper, I will be looking at past attempts to remedy the fish population decline through changing shrimping equipment used, as well as some current measures taken not only to reduce the amount of bycatch, but also to raise money to restore and preserve the environment.

Shrimping is North Carolina's number one fishing industry. In the year 2004 alone, 4.9 million pounds of shrimp were caught worth around nine million dollars (Division of Marine Fisheries). The industry itself has taken many hits from hurricanes that drive the shrimp out to sea and destroy equipment and docks, which in turn have to be rebuilt or repaired. Also, foreign imports are making it hard to get a decent price on the shrimp that are caught, making anything fewer than twenty to thirty shrimp per pound virtually worthless. The National Oceanic and Atmospheric Administration Fisheries Office of Science and Technology reports that the United States' shrimp imports are valued at 3.7 billion and are continuing to rise. Shrimp make up thirty-two percent of all fish imports into the United States (Smith, "Meeting"). With these factors there has been a steady decline in the number of commercial fishermen in North Carolina. However, the numbers of recreational fishermen has continued to rise (Smith, "Commercial"). There are programs currently being debated that would reduce the size of the shrimping fleet in order to try to give the struggling industry new life. Some of these programs include boat buybacks, a license scheme that would let one commercial fisherman buyout another, and establishing cooperatives that would work together to harvest as well as market their catch (Smith, "Proposal").

In North Carolina there are three types of shrimp caught: brown shrimp, pink shrimp, and white shrimp. Brown shrimp are the most plentiful and are caught mostly in the summer.

While they are the most plentiful, they also have the shortest lifespan of the shrimp caught in North Carolina. With life spans of eighteen months, brown shrimp can get up to about nine inches long. Pink shrimp, harvested in the spring and fall, are the second most commonly caught kind. Pink shrimp have a lifespan of up to twenty-four months and are also the longest, growing to a maximum length of eleven inches. Lastly, white shrimp are caught the least in North Carolina. They are harvested during the fall and grow up to eight inches long, making them the smallest shrimp harvested (Division of Marine Fisheries).

Eighty-five percent of all shrimping on North Carolina's coast is done in sounds, bays, and estuaries inshore known as prime nursery habitats for developing fish (Hines 1). In North Carolina, commercial and recreational shrimp fishermen primarily use the otter trawl. Otter trawls are pulled behind the boat and catch pretty much anything that they come across; this causes a lot of bycatch. Bycatch is "the incidental, usually unwanted mix of species caught when fishing for another species" (Hines 1). Having an average trawl time of ninety minutes, survival rate in this net is also very low. Due to the time that is spent retrieving the net, as well as separating out the bycatch on the deck, most of the fish put back into the water are either dead or will not live very long (Coale 2).

Many developments over the years help reduce the amount of bycatch when shrimping. Tailbags were one of the first methods that were tested. Tailbags were originally developed in France and were constructed out of a horizontal piece of net webbing placed into a trawl. This divided the trawl into two halves; the concept was to separate the fish from shrimp. Shrimp swim up and into the upper half of the net when stimulated by the tickler chain (a long piece of chain that brushes the bottom) and fish that live on the bottom, when disturbed, will swim in a downward direction into the lower half of the net (see fig. 1). A modified version was made for

use in the Pacific North West and instead of a horizontal piece of webbing, the tailbag design had two halves with two different sizes of net covering each half; the shrimp passed through the outer layer and were trapped by a smaller inner layer. The fish that could not pass through the outer layer were led to the other half of the net which let them escape. Due to problems with clogging of the pieces of net used to separate the shrimp and fish, which caused loss of shrimp and separation, the idea of a panel type separator was abandoned in the Southeast (Coale 3-4).

Fig.1. Depiction of a tailbag (Coale)

The skimmer trawl, which was developed for use in Louisiana, was the next idea that was examined to help reduce the bycatch problem in North Carolina. Skimmer trawls are pushed along the sides of the boat and, unlike the otter trawl, they let the fishermen easily retrieve the tailbag through the use of a lazy line. Not only does it make the gear easier to retrieve, but also the boat does not have to stop for this to be done, which saves time and fuel (Coale 6) (see fig.2). The N.C. Sea Grant study has found that

Fig. 2. Depiction of a skimmer trawl (Coale)

skimmer trawls catch around twelve percent less bycatch. Another added advantage of this type of trawl is being able to shrimp more easily in shallower waters (Smith, “North Carolina Shrimp”). I believe this choice to be the best solution to remedy the bycatch problem, outside of outlawing shrimping in the intercoastal waterways entirely.

There are already actions in North Carolina to phase out the old otter trawl system in the next four years upstream of the N.C. 172 Bridge. Another part of this law will limit recreational shrimping to a 48 quart cooler per person (Smith, “Change Coming”). Still other new laws will

help raise money for conservation. One of these laws, which will take effect in January 2006, will require anyone the age of eighteen or older who fishes on the coast to have a license. The license will cost fifteen dollars a person per year. Alternatively, one can buy a one dollar license that will be good for only one week. Anyone younger than the age of sixteen or anyone who holds a lifetime fishing license issued before 2005 would not have to have a license (Smith, "NC House"). The Wildlife Resources Commission will be in charge of managing the dispersement of licenses and spending the revenue the licenses create (Smith, "N.C. May Be Ready"). With this new license not only will there be a great amount of money raised for the conservation efforts, but there will also be a decreased amount of recreational fishermen due to the fact that fishing on the coast is no longer free.

Over the years the shrimping industry has made great strides in improving their environmental efforts, and North Carolina leaders have made many new laws to conserve and restore the environment, but the fact still remains that shrimping is ruining fishing in the intercoastal by not only removing a primary food source for developing fish, but also eliminating the fish themselves. The populations of flounder and other fish have dropped in number so significantly that it is hard for anyone to go out and get anything but a few fish here and there. The commercial fishermen that are already struggling will be forced to go out to deeper waters due to the decrease in the fish population. The small commercial fishermen, who don't have the equipment for fishing in deeper water, will not be able to make enough money to live. If shrimping were banned in the intercoastal waterways, or commercial shrimpers were made to use shrimping gear like the skimmer trawl, the shrimp and fish populations would double or even triple in just a few years, ensuring that there will be an abundance for anyone who goes out to fish in the present, as well as in the future.

Works Cited

- Coale, J. Stuart. "Comparisons Between a Skimmer Trawl and an Otter Trawl in the North Carolina Shrimp Fishery." MS thesis East Carolina University, 1993.
- Division of Marine Fisheries. "Shrimp." North Carolina Department of Environment and Natural Resources. 21 Nov. 2005 <<http://www.ncfisheries.net/shellfish/shrimp1.htm>>.
- Hines, Kenneth L. "Catch Comparisons Between Low Profile And High Profile Skimmer Trawl Nets in the Inshore Shrimp Fishery of North Carolina." MS thesis East Carolina University, 1997.
- Smith, Patricia. "Change Coming for New River Shrimpers." Daily News, The (Jacksonville, NC). 1 Sept. 2005. EBSCO. East Carolina University, Joyner Lib. 22 Nov. 2005 <<http://www.epnet.com/>>.
- "Commercial Fishing Seeing Decline in NC." Daily News, The (Jacksonville, NC). 18 May 2005. EBSCO. East Carolina University, Joyner Lib. 7 Nov. 2005 <<http://www.epnet.com/>>.
- "Meeting on NC Shrimp Fishery Plan." Daily News, The (Jacksonville, NC). 20 July 2005. EBSCO. East Carolina University, Joyner Lib. 7 Nov. 2005 <<http://www.epnet.com/>>.
- "NC House Committee OKs Recreational Fishing License." Daily News, The (Jacksonville, NC). 28 June 2005. EBSCO. East Carolina University, Joyner Lib. 7 Nov. 2005 <<http://www.epnet.com/>>.
- "N.C. May Be Ready to Go With Saltwater Fishing License." Daily News, The (Jacksonville NC). 6 May 2005. EBSCO. East Carolina University, Joyner Lib. 13 Nov. 2005 <<http://www.epnet.com/>>.

“North Carolina Shrimp Fishermen Differ on Types of Trawling.” Daily News, The
(Jacksonville, NC). 11 July 2005. EBSCO. East Carolina University, Joyner Lib. 22
Nov. 2005 <<http://www.epnet.com/>>.

“Proposal Would Reduce Commercial Shrimping Fleet in North Carolina.” Daily News, The
(Jacksonville, NC). 24 Aug. 2004. EBSCO. East Carolina University, Joyner Lib. 13
Nov. 2005 <<http://www.epnet.com/>>.