

Inshore Shrimp Trawling In North Carolina Fact Sheet



NC's Estuarine System

- Estuaries are bodies of water that, along with their surrounding wetlands, are found where rivers meet the sea¹.
- Estuaries are complex ecosystems that support distinct plant and animal communities. Many animals rely on them for food, as spawning grounds, and as a place of refuge for their young to grow to maturity¹.
- North Carolina has 2.1 million acres of estuary, which makes it the second largest estuary in the U.S.²

Shrimp in NC

- Shrimp spawn offshore and their eggs hatch into free-swimming larvae, which develop into post-larvae. At this stage, they enter estuaries (primarily the upper, more shallow portions of creeks), where they are better protected as they grow. Once they're large enough, they migrate to deeper rivers and sounds, where protection is lacking, and ultimately back to the ocean to spawn³.
- In North Carolina, only the shallowest portions of estuaries are designated as nursery areas³.
- Young fish and crustaceans rely on these nursery areas for food, protection, and the proper environmental conditions for development and growth³.



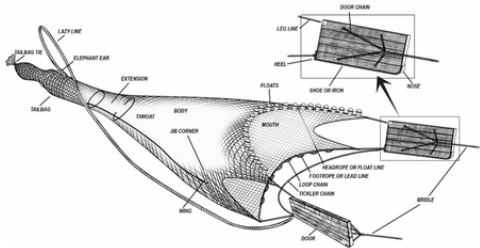
- In addition to being used for food and bait, shrimp also play an important ecological role as prey for many other recreationally and commercially important species³.

Shrimping in NC

- North Carolina is currently the only state on the Atlantic and Gulf coasts that allows large-scale shrimp trawling in its estuaries.
- Over 98% of the annual commercial shrimp harvest in North Carolina is caught by using trawls².
- Less than half (approximately 1 million acres) of North Carolina's estuarine system is closed to shrimp trawling².
- Shrimp are available in coastal ocean waters where bycatch and habitat destruction is less of a concern. In 2018, 82% of the state's shrimp harvest occurred in estuarine waters, while only 36% did in 2019³.



Inshore Shrimp Trawling In North Carolina Fact Sheet – Cont'd



Schematic of otter trawl components⁶ (Image credit: North Carolina Division of Marine Fisheries)

- Otter trawls are the most common type of equipment used for shrimping in North Carolina^{4,5}.
- They have two doors or boards that hold a net open as it is pulled along the bottom. They are used for harvesting shrimp in estuaries and the ocean³.

Acknowledged Issues

Bycatch

- Bycatch is the unintended part of a catch taken because of the non-selectivity of the fishing gear that's being used^{3,5,6}.
- The data shows that for every pound of shrimp harvested in NC's waters, over four pounds of non-target catch, including juvenile finfish, are discarded⁵.
- As an example of the magnitude of the bycatch issue, in 2014, nearly 700 million marine creatures were negatively impacted by inshore shrimp trawling⁵.

Destruction of Habitat

- Trawling damages the natural seafloor habitat, which affects, if not destroys, all bottom-dwelling plants and animals⁸.

- The resuspension of bottom sediment that is caused by trawling can alter the chemistry of the water and cause the sediment to be carried away by currents. This changes the makeup of the seafloor and the ability of animals and plants to live there⁸.



Sources

1. NOAA. National Ocean Service. [What is an estuary?](#)
2. N.C. Marine Fisheries Commission. [Shrimp Fishery Management Plan Amendment 2 Decision Document](#). 2021; pages 3, 10, 3
3. N.C. Division of Marine Fisheries. [North Carolina Shrimp Fishery Management Plan Amendment 2](#); pages 2, 19, 11, 6, 16
4. N.C. Marine Fisheries Commission. [Issues/Reports](#). 2016.
5. Kevin Brown. Characterization of the commercial shrimp otter trawl fishery in the estuarine and ocean (0-3 miles) waters in North Carolina: Final Report to the National Fish and Wildlife Foundation and the National Oceanic and Atmospheric Administration, National Marine Fisheries Services, N.C. Department of Environmental Quality. October 2015; page 2, pages 114-15 and 136-37, tables throughout.
6. NOAA Fisheries. [Understanding Bycatch](#).
7. Luiz Barbieri. Technical Review: The Need to Reduce Fishing Mortality and Bycatch of Juvenile Fish in North Carolina's Estuaries. November 2016. (Exhibit E); page 11.
8. USGS. Coastal and Marine Hazards and Resources Program. [What a Drag: The Global Impact of Bottom Trawling](#). 2016.

