Gill nets are employed in North Carolina to harvest finfish. While mesh sizes may be required to select for a specific size of a specific fish, the bycatch of other species, including sea turtles, dolphins, porpoise, birds.

While the southern states (SC-FL) generally prohibit the use of gill nets in their estuarine or state waters, the practice is more common in states to our north. While many may suggest that the allowance of gill nets in more northern states is justification for the minimally regulated gill net fishery in NC, several important factors should be considered. Bycatch of sea turtles and dolphins is far less common in northern states. The finfish species diversity in North Carolina, compared to northern states is much higher, resulting in greater numbers of fish species taken as bycatch. Colder water up north reduces bycatch to some degree, however most bycatch in gill nets is dead or injured according to ASMFC.

When compared to other northern states, gill net use is far more restricted and more closely monitored than the fishery in North Carolina. One problem that arises from the limited regulations and monitoring of North Carolina gill nets is the magnitude on unquantified bycatch of both undersized target, and non-target species.

Efforts to control the unique magnitude of the scope and scale of the North Carolina gill net fishery include mesh sizes, net length, soak times, areas, tie-downs, attendance requirements, and observer coverage. Despite these efforts, North Carolina has the most permissive regulations relative to gill nets on the east coast.

Small mesh gill nets:

Employed to harvest smaller species such as spot, croaker, kingfishes, bluefish, Spanish mackerel, spotted seatrout, weakfish. The minimum mesh size for small mesh gill nets is 2 ½" stretch mesh, a mesh size that has significant catch and bycatch of juvenile fishes. There is no limit on the amount of small mesh gill net that can be employed but nets must be attended from May 1 through November 30. There are gill net attended areas that require year round attendance.

Small mesh gill nets commonly interact with and cause the mortality of numerous species of fish, birds, and protected resources. The bycatch and mortality of species with size limits such as red drum, spotted seatrout, and weakfish are most prevalent.

Large mesh gill nets:

Employed to harvest southern flounder. Minimum mesh size is 6" stretch mesh with yardage up to 2,000 yards. Less bycatch of species such as spotted seatrout and weakfish but are a significant source of red drum bycatch. Large mesh gill nets are also the primary gear responsible for bycatch of protected species such as sea turtles, birds, marine mammals, and Atlantic sturgeon. Observers for large and small mesh gill net fisheries are required to comply with federal Incidental Take Permits. However, coverage and compliance is a problem.

Runaround and Drift gill nets:

Typically small mesh employed to harvest shad, bluefish, and Spanish mackerel (Drift) or striped mullet and spotted seatrout (Runaround). Far more species specific with less bycatch and unwanted species release rates are far better due to immediate set and retrieve. While rules appear voluminous for gill nets, our sister states to the south, with a far similar fish and protected species assemblage, simply prohibit their use. While many in North Carolina have pushed for similar restrictions on gill nets, alternatives exist that would permit a responsible gill net fishery while significantly reducing the bycatch, waste, and overfishing that accompanies the current rules in North Carolina.

Gill Net Options for consideration

Small mesh gill nets:
Minimum mesh size of 2 ¾" stretch mesh to reduce bycatch of juvenile fish.

Year-round attendance to further reduce discard mortality and reduce interactions with birds and other protected resources.

Maximum yardage of 300 yards, no more than 100 yards employed in a single shot. Reduces conflict and bycatch and reduces harvest on the majority of species targeted whose status is poor.

Large mesh gill nets:
The current large mesh gill net fishery is managed by a 6" stretch mesh minimum size and 2,000-yard limit. The fishery primarily targets a 15" southern flounder. While other species may be harvested and either discarded due to size limits or retained for sale, the majority of the fishery targets southern flounder.

A 15" southern flounder is typically an immature female fish. Increasing the size limit to 18", the size at which 75% are mature, would require a mesh size that is too large to be allowed in North Carolina waters due to federal dolphin and porpoise rules. A proposed slot limit of 12-18" for southern flounder would significantly reduce the harvest of female southern flounder and allow harvest of under-fished males. Further, a slot limit would allow for smaller mesh sizes to be employed, reducing impacts to red drum, sea turtles, sturgeon and marine mammals. The slot limit would also protect adult female flounder and increase the currently low level of spawning stock biomass.

The primary gill net fishery, by volume, for southern flounder occurs in the fall (September-November) as fish are concentrating in the sounds to migrate offshore and spawn, most for the first time. The pound net fishery also targets these migrating fish. As a result, catches are high and prices become depressed, particularly when the trawl fishery for summer flounder opens and puts even more flounder on the market. The result is not only a fishery that has high levels of bycatch of sea turtles, red drum, marine mammals, but depressed prices.

Reduce maximum yardage to 500 yards with full time attendance from April 1 – August 30. Pound net, gig, and hook and line only from September 1 until season closure. Fishermen may not use 500 yards of

large mesh and 300 yards small mesh on a single trip. Keep in mind, a slot limit would likely make small mesh more attractive to harvest the smaller, more abundant male fish.

Runaround/Drift gill nets:
300-yard maximum, full time attendance and with a season from April 1 to August 30.