

Catches of Sandbar Shark from the Southeast US Gillnet Fishery: 1999-2009

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ABSTRACT

This document presents information on catch and discards of sandbar sharks in the southeast commercial gillnet fishery from 1999 through 2009. Average sizes of sandbar sharks caught are also presented by gear type and year, when available.

Introduction

The shark drift gillnet fishery developed off the east coast of Florida and Georgia in the late 1980's (Trent et al. 1997). Observer coverage of the Florida-Georgia shark gillnet fishery began in 1992, and has since documented the many changes to effort, gear characteristics, and target species the fishery has undergone following the implementation of multiple fisheries regulations (e.g., Passerotti et al. 2010 and references therein). Most recently, the directed large coastal shark (LCS) gillnet fishery has been significantly reduced since the implementation of Amendment 2 to the Consolidated Atlantic Highly Migratory Species Fishery Management Plan (NMFS 2007). The 33-head LCS trip limit implemented by Amendment 2 has essentially ended the strike net fishery and limited the number of fishers targeting LCS with drift gillnet gear. This regulation has also limited the small coastal shark gillnet fishery. Currently, there are a total of 222 directed and 276 incidental shark permits issued to fishers in the US Atlantic and Gulf of Mexico, of which only a small portion use gillnet gear. Many gillnet fishers have now begun targeting coastal teleost species with varying types of gillnet gear. As such, the southeast gillnet observer program currently covers all anchored (sink, stab, set), strike, or drift gillnet fishing by vessels that fish from Florida to North Carolina and in the Gulf of Mexico year-round. Current protocols for selection of vessels for observer coverage and collection of data are found in Passerotti et al. (2010). Herein, we describe catches of sandbar shark, *Carcharhinus plumbeus*, in the southeast US gillnet fishery for the years 1999-2009.

I. Fishery description

General descriptions of vessels, fishing gear, and fishing techniques for gillnets can be found in Trent et al. (1997) and Passerotti et al. (2010) and references therein. Sandbar sharks are not a directed target in the gillnet fishery, but are sporadically taken as bycatch. Drift sets containing sandbar shark ranged 900 – 7500 feet in length, 12 – 40 feet net depth, and mesh sizes from 3.25 - 5 inches. Drift gear was fished in water ranging 10 – 116 feet deep. Sink gear ranged 900 – 3000 feet in length and 7 – 17 feet net depth, with mesh size of 5 inches for all sets containing sandbar shark. Water depths ranged 42 – 151 feet.

II. Catch Summary

A total of 258 sandbar sharks were caught in 45 observed sets (35 drift sets, 10 sink sets) aboard 26 trips on gillnet vessels between 1999 and 2009 (Table 1). There were 16,624 gillnet trips reported to the Coastal Fisheries Logbook for 1999-2009, meaning the trips reported here make up approximately 0.16% of the total effort during this time period. Direct length measurements were obtained for n=26 sharks (Table 2).

References

- Passerotti, M.S., J.K. Carlson, and S.J.B. Gulak. 2010. Catch and Bycatch in U.S. Southeast Gillnet Fisheries, 2009. NOAA Technical Memorandum NMFS-SEFSC-600. 20 p.
- Trent, L., D.E. Parshley, and J.K. Carlson. 1997. Catch and bycatch in the shark drift gillnet fishery off the east coast of Florida and Georgia. *Mar. Fish. Rev.* 59:19-28.

Table 1. Catches of sandbar shark by gear type and disposition, 1999-2009.

| Gear Type | Year | n | % Kept | % Discard Alive | % Discard Dead |
|-----------|------|-----|--------|-----------------|----------------|
| Drift | 1999 | 19 | 94.7 | 0.0 | 5.3 |
| | 2000 | 29 | 96.6 | 0.0 | 3.4 |
| | 2001 | 2 | 100.0 | 0.0 | 0.0 |
| | 2002 | 2 | 0.0 | 0.0 | 100.0 |
| | 2004 | 1 | 0.0 | 0.0 | 100.0 |
| | 2008 | 2 | 0.0 | 100.0 | 0.0 |
| | 2009 | 107 | 0.0 | 81.3 | 18.7 |
| Sink | 2005 | 1 | 0.0 | 0.0 | 100.0 |
| | 2009 | 95 | 0.0 | 63.2 | 36.8 |

Table 2. Average size (fork length, FL) and standard deviation (S.D.) of sharks measured for all observed trips by gear type, 1999-2009.

| Gear Type | Year | n | Average FL (cm) | S.D. |
|-----------|------|----|-----------------|------|
| Drift | 2008 | 1 | 43.0 | -- |
| | 2009 | 3 | 62.3 | 8.3 |
| Sink | 2009 | 22 | 62.9 | 3.7 |