

## **SPINY DOGFISH**

(06/08 ARCHIVE - NCDMF)

**Stock Status – Recovering**– The 2006-2007 Atlantic coast spiny dogfish population is not considered overfished, and overfishing is not occurring. The 43rd Stock Assessment Workshop report estimated spawning stock biomass to be above threshold value, and fishing mortality well below the updated threshold value. Despite the findings, reviewers of the stock assessment commented that evaluating the stock status with respect to the reference points is problematic, and that spawning stock biomass (SSB) estimates and mortality rates may be unreliable. Due to the life history of spiny dogfish, the recent reductions in SSB cannot be quickly replaced. Declines in the number and size structure of spawning females is a major contributing factor for continued low recruitment, which poses a significant risk to the long-term spawning stock of spiny dogfish.

**Average Commercial Landings 1998-2007 and Value** – 1,293,294 lbs./\$182,058

**2007 Commercial Landings and Value** – 149,543 lbs./\$26,080 (quota managed)

**Average Recreational Landings** – insufficient data to quantify

**Status of Fisheries Management Plan (FMP)** – In North Carolina, spiny dogfish are currently included in the Interjurisdictional FMP, which defers to Atlantic States Marine Fisheries Commission (ASMFC)/Mid-Atlantic Fisheries Management Council (MAFMC)/New England Fishery Management Council (NEFMC) FMP compliance requirements. Currently managed under the joint MAFMC and NEFMC FMP in federal waters (3-200 miles) and the ASMFC Spiny Dogfish Interstate FMP in state waters (0-3 miles). The ASFC Spiny Dogfish Board established a 6,000,000-lb. quota for the October 2006-April 2007 fishing year that was divided into two six-month quota periods (May-October and November-April). A 3000-lb. trip limit was in effect for both periods. States were also given the opportunity to set their own trip limits. An 8,000,000 lb. quota has been established for 2008.

**Research and Data Needs** - discard mortality estimates, recreational harvest data; at-sea observer data; commercial fishery sampling, aging, and genetic studies

**Current Regulations** – Spiny dogfish are quota managed species with harvest periods and trip limits.

**Harvest Season** - The North Carolina commercial fishery occurs in the winter, from December – April, when the fishery is active.

**Size and Age at Maturity** – males: 23 inches total length (TL)/8 years; females: 31 inches TL/12 years. Age at maturity estimates vary due to different aging techniques.

**Historical and Current Maximum Age** – males: 35 years; females: 40 years. Some estimates from the Pacific Ocean studies suggest a maximum age of 95 years. Historical ages are variable due to different aging techniques used. Annual formation of rings on the second dorsal spine not directly validated for northwest Atlantic fish.

**Juvenile Abundance Index 1998-2007** – unknown, **2007** - unknown

**Habits and Habitats** - Spiny dogfish are found on both sides of the Atlantic and Pacific oceans in temperate and subarctic waters. In the northwest Atlantic, they range from Labrador to Florida, but are most abundant from Nova Scotia to Cape Hatteras. They migrate seasonally, moving into North Carolina waters in the winter and north in the spring. The preferred water temperature is 45o to 55o F. The spiny dogfish is a relatively long-lived, slow-growing animal reaching a maximum size of approximately four feet. The spiny dogfish gives birth to live pups. The gestation period is approximately 22 months with 2 to 15 pups produced (average 6). Fecundity increases with fish length.

For more information, see [DMF Species Leads page](#).