

Gulf of Maine Spiny Dogfish Briefing Paper Synopsis

The Issue: The increasing abundance of Spiny Dogfish in the near shore waters of the Gulf of Maine has the potential to negatively effect both commercial and recreational fisherman in this region.

The Goal: Is to raise community awareness and involvement, use it as a spring board for an upcoming forum, and as a tool to facilitate the proper management of this species within the Gulf of Maine.

The Synopsis: Spiny Dogfish, *Squalus acanthias*, are distributed in the Northwest Atlantic from Labrador to Florida but are most abundant from Nova Scotia to Cape Hatteras. Despite this expansive geographic range, this species is managed as a unit stock along the United States Eastern seaboard. Recent information suggests that this species has become one of the predominant members of the northeastern U.S. continental shelf ecosystem in terms of biomass and abundance. In addition, recent population assessments of spiny dogfish suggest an increase in biomass of this species is occurring in New England waters. Conversely, several stocks of commercially important ground fish, including Atlantic cod (*Gadus morhua*) have failed to rebound over the same period. It is well established that the Spiny Dogfish are voracious and opportunistic predatory fish. Several studies have demonstrated a negative correlation between dogfish biomass and commercially important ground fish. However these studies have focused on geographic areas other than Western Gulf of Maine, such as Georges Bank, leaving this particular region relatively unstudied. Unfortunately the Western Gulf of Maine is the predominate area that is fished by the local commercial and recreational fishing industries in Northern New England.

Important Concerns: In the Fisheries Management Plan (FMP), all spiny dogfish are managed as a unit stock. Two recent tag and release studies provide preliminary but compelling evidence that they are more than a single unit.

The FMP does not adequately address the management and sustainability of the species or the needs of the commercial and recreational fishing industry in the Gulf of Maine.

The interaction between between spiny dogfish and commercial ground fish is at issue.

Preliminary investigations of Dr. James Sulikowski, of the University of New England, have found the stomach contents of dogfish are over 93% prey fish. (see Figure 1) This is in sharp contrast to previous results upon which the FMP is based.