SARGASSUM

The Sargasso Sea, two-million square miles of the tropical western North Atlantic Ocean, is named for its expansive "floating gardens" of sargassum, a yellow-brown algae. This unassuming pelagic weed (about 90 percent is of the species *Sargassum natans*) is home to hundreds of species of marine fish, turtles, mammals and sea birds. Evolved from bottom-dwelling vegetation around 40 million years ago, these unique plants are kept afloat by oxygen-filled pneumatocysts that resemble berries. The counter-clockwise motion of the prevailing North Atlantic current, known as the Central Gyre, holds an estimated 4 - 11 million tons of sea weed drifting in the Sargasso. Large quantities of sargassum also can be found on the continental shelf off the southeastern coast of the United States, gathered in large clumps called "rafts" or in bands of "weedlines" where currents converge. Fishermen know these assemblages for the myriad number of sea creatures that associate with them, including many species of fish important to both commercial and recreational fishing.

SARGASSUM IS "ESSENTIAL FISH HABITAT". Sargassum provides habitat for over 100 species of finfish (including jack crevalle, rainbow runner, amberjack, common dolphin, red porgy, marlin, swordfish, tunas and triggerfish) during critical stages of their lives. It also provides floating habitat for 145 invertebrates, numerous marine birds and 4 species of sea turtles. The loggerhead turtle, an endangered species, lays its eggs in nests on southern beaches. The tiny hatchlings scramble into the surf and then swim hundreds of miles out to the Sargasso Sea, where the fortunate few that survive this perilous journey can hide in the weeds to feed and grow in relative safety. The American eel, on the other hand, makes the reverse trip. After growing up in Chesapeake Bay or other coastal estuaries, the mature eel then travels to the Sargasso to breed. But more than anything else, the Sargasso (and its weedy margins) is a nursery packed with juveniles.

U.S. PLAN SEVERELY LIMITS HARVEST OF SARGASSUM. Sargassum provides structure in the open ocean, which young fish seek out for protection from predators, shade from the sun, and a ready source of food (because of all the other life attracted there). Scientific studies have found that fish abundance is directly correlated to the amount of sargassum present. The South Atlantic Fishery Management Council, the federal body responsible for protecting ocean fish and their habitat from North Carolina to Florida, declared sargassum as "essential fish habitat" under the U.S. Magnuson-Stevens Fishery Conservation and Management Act. The law charges the council (and its seven counterparts in other regions) with minimizing the "adverse effects on such habitat caused by fishing." To that end, the council prepared a management plan that severely limits commercial harvest of sargassum in U.S. waters. The long-term objective is to give sargassum full protection and assure that there is no net loss of this important fish habitat off U.S. shores.

Although the council submitted its first sargassum protection plan to the Secretary of Commerce in 1998, it took over five years for the plan to be approved and implemented. At the root of the delay in protecting this rootless plant is a quirk in the Magnuson-Stevens Act, originally written in 1976. The act's definition of "fish" includes "finfish, mollusks, crustaceans, and all other forms of marine animal *and plant life* other than marine mammals and birds." By defining sargassum as a fish, the law allows the council to prepare a fishery management plan (FMP) to protect it - authority it doesn't have over wetlands, for instance. Unfortunately, all FMPs must establish a sustainable "yield," or catch, that prevents overfishing. Based on a strict interpretation of the law, the Department of Commerce rejected the council's original plan because it set the allowable "catch" at zero. Government attornies argued that the plan must include a catch level and permit fishing as long as it prevents overfishing. So the council went back to the drawing board, allowed a minimal take of sargassum (anything above 5,000 pounds a year is "overfishing"), which it considers so strict as to amount to a *de facto* end to commercial exploitation. The revised plan finally became law in early 2004.

THE NATIONAL COALITION FOR MARINE CONSERVATION (NCMC) from the beginning strongly supported the council's goal of giving sargassum the strictest protection possible and we worked hard to gain passage of the U.S. Sargassum Plan. We then turned our attention to persuading U.S. officials to lead the way in securing protections in international waters. The Sargasso Sea, where the preponderance of sargassum lies, is vulnerable to possible exploitation at unsustainable levels.

Because most of this open ocean habitat occurs on the high seas, multi-lateral action is necessary to recognize the value of sargassum to pelagic fisheries and guard against any activities that could adversely affect the Sargasso Sea's vital role as "the cradle of life" in the Atlantic. The International Commission for the Conservation of Atlantic Tunas (ICCAT) is the body responsible for managing wide-ranging tunas, billfishes and sharks. The NCMC drafted a resolution for the U.S. to take to the November 2005 ICCAT meeting and participated as a member of the U.S. delegation. The resolution, subsequently adopted by the 35-nation commission, directs ICCAT's scientists to assess the ecological status of sargassum as habitat for tuna, billfish and sharks, and asks countries to report on activities that may affect the abundance of sargassum. This resolution represents the first-ever action taken by ICCAT to address essential fish habitat and ecosystem concerns.

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