SWORDFISH

The broadbill swordfish (*Xiphias* Gladius) is known as "the gladiator" because of the sharp, sword-like bill it wields as a weapon to hunt prey as well as for protection from its few natural predators. The mako shark is one of the rare sea

creatures big enough and fast enough to chase down and kill an adult broadbill, which can grow to over 1,000 pounds. But this magnificent ocean giant is no match for its most dangerous adversary – man. The gladiator is just now battling back from decades of commercial overfishing.

SWORDFISH NEARLY DISAPPEARED FROM COASTAL WATERS. Swordfish are found throughout the temperate and tropical waters of the Atlantic and Pacific Oceans. They travel on thousand-mile migrations, and feed near the surface or at depths of 2,000 feet or more. In the northwest Atlantic, these ocean nomads follow seasonal north/south migratory routes along the Gulf Stream. Today, the primary U.S. fisheries for swordfish are on the Grand Banks in the north Atlantic, in southern coastal waters and in the Caribbean Sea. But whereas swordfish once supported thriving harpoon fisheries in the northeast U.S. and Canada dating back to the 19th century, these traditional fisheries are long gone, replaced by modern fleets of highly mobile "longliners" pursuing a scarce, remnant population. Fishermen must travel farther and fish longer to catch smaller and smaller fish. Meanwhile, fishing effort is increasing in the Pacific, where the condition of swordfish populations is unknown, raising fears that history will repeat itself there.

Up until the 1960s, Atlantic swordfish were caught in the summer months in the northeast U.S. and almost exclusively by commercial and sport fishermen using harpoons and rod and reel. In those days, the fish were plentiful and big enough to be hunted like whales. Indeed, swordfishing was more like hunting than fishing, since the fisherman had to visually sight the fish at the surface, where larger adults (usually well over 200 pounds) would bask in the warmer surface waters after a night of heavy feeding. Spotting the unmistakable double wake of the broadbill's dorsal and tail fins, anglers would show the bait, try and entice the behemoth to take it, and then endure an hours-long battle of wits and brute strength. Catching a swordfish with rod and reel was considered the supreme challenge of big game fishing. But for decades, the storied fishing grounds of New England and the New York Bight told no tales of swordfishing.

NEARLY ALL SWORDFISH ARE TAKEN ON INDISCRIMINATE DRIFT LONGLINES. MOST ARE IMMATURE FISH THAT NEVER GET A CHANCE TO GROW AND REPRODUCE. The big swordfish were wiped out by the advent of large-scale commercial longlining in the 1960s and '70s hundreds of vessels setting multi-mile, multi-hook lines, year round, throughout the range of the fish. Swordfish are solitary animals, usually traveling alone rather than in schools. They are opportunistic predators, preying on squid, herring, mackerel, dolphin-fish, bluefish and other, smaller pelagic species. Because they are widely dispersed swimmers, large-scale fishing operations targeting swordfish use longlines because it is the most effective gear available. Longlines consist of extraordinarily long floated mainlines - typically stretching from 20-45 miles from which thousands of baited hooks are suspended in the deep ocean, "searching" for fish. By 1999, the number of adult breeding age swordfish had declined by 66% since the halcyon days of the early '60s. The average swordfish caught by the U.S. longline fleet today is an immature fish years shy of its first chance to reproduce.

Longlines also capture a wide array of marine species, including sharks, marlin and even Lendangered turtles and seabirds, all accidental casualties of the indiscriminate hooks. Fishing with longlines is like laying an underwater minefield, as any fish or other animal large enough to take the hook is a potential victim. Indeed, the longline fisheries have evolved to resemble more and more their principal target, an opportunistic predator that preys on whatever is available.

CONSERVATION IS PAYING OFF AND RECOVERY IS NOW UNDERWAY. In 1999, at the urging of the National Coalition for Marine Conservation (NCMC) and our allies in the fishing and environmental communities, the International Commission for the Conservation of Atlantic Tunas (ICCAT), the international body responsible for managing swordfish populations throughout the Atlantic, implemented a rebuilding plan. The plan lowered international catch limits even further from levels set in 1997. Meanwhile, NCMC successfully obtained a prohibition on longlining in known swordfish nursery areas found off the U.S. coast. Throughout the 1990s, American longliners were killing and discarding 30-40,000 juvenile swordfish (fish under the ICCAT minimum size) every year. Because of a 1996 law requiring that such wasteful "bycatch" be reduced - a requirement NCMC worked to enact - and an NCMC lawsuit to enforce it, known hotspots of juvenile swordfish concentrations in the eastern Gulf of Mexico and off the southeastern coast were put off-limits to longlining beginning in 2000. These no-longlining zones - a total of 133,000 square miles - are now saving thousands of juvenile swordfish, billfish and sharks. As a result of these conservation measures, the most recent swordfish stock assessment (2006) indicates the north Atlantic population is rebuilding. The recovery, however, is literally in its infancy. Many of the fish in the resurgent population are just beginning to reproduce.

THE NATIONAL COALITION FOR MARINE CONSERVATION SUPPORTS THE FOLLOWING ACTIONS TO COMPLETE THE SWORDFISH RECOVERY: Countries fishing for swordfish in the Atlantic must refrain from increasing effort beyond levels set in 2006. The U.S. must keep swordfish nursery grounds off-limits to longlining indefinitely and work with ICCAT to identify nursery areas elsewhere in the Atlantic and close them to non-selective fishing gear. Before swordfish longlining increases, we must make sure there are adequate protections in place for threatened billfish and other species taken as bycatch. In the Pacific, the U.S. has enacted a precautionary management plan for swordfish and other highly migratory species that prohibits the use of pelagic longlines. We must keep this ban in place, while fostering better international cooperation. The use of harpoon and rod and reel fishing gears, sustainable methods of fishing with no bycatch, should gradually replace longlines as the dominant gear in both the Atlantic and Pacific swordfish fisheries.



For more information, contact the NATIONAL COALITION FOR MARINE CONSERVATION 4 Royal Street, SE, Leesburg, VA 20175 WWW.SAVETHEFISH.ORG