

was observed, indicates that smalltooth sawfish takes (observed or total) most likely do not occur on annual basis.

Recreational fishermen targeting sharks generally use bait and hook. Sea turtles are known to take baited hooks. NMFS has no data specifically showing that sea turtles are taken by recreational anglers fishing for sharks. Most recorded sea turtle captures by recreational fishermen occur off fishing piers where sea turtles are known to frequent due to lighting and the concentration of bait. There were no sea turtles caught during the June Gulf Coast Shark Census held each year between 1991 and 1999 (operating out of Sarasota) which happens offshore and not on fishing piers. The selected measures in Amendment 1 pertain to recreational shark fishing in Federal waters. Based on the information above NMFS believes that the chances of a recreational shark fishermen catching a sea turtle in Federal waters is discountable.

Smalltooth sawfish are known to be occasionally hooked with rod and reel and/or handline during recreational fishing. These captures occur most frequently in state waters in the vicinity of the Everglades National Park and Florida Bay, where the current population is concentrated. North of this area, the number of reported captures declines greatly. The National Park Service, Everglades National Park, monitors fishing activity and harvest in this area in part by conducting interviews with anglers and fishing guides at local boat ramps. These interviews indicate that the majority of anglers do not try to catch any particular kind of fish. Target species of the minority group that did try to catch a particular type, however, included snook, spotted sea trout, red drum, and tarpon. Thus the vast majority of incidental smalltooth sawfish captures are not from shark fishing.

The only indication that smalltooth sawfish may be occasionally hooked by a fishermen targeting sharks stems from the June Gulf Coast Shark Census between 1991 and 1999. Five smalltooth sawfish were captured and released in 20,000 line hours of recreational fishing effort. The captures, however, were all from either inside the barrier islands or just offshore from barrier islands, along the southwest Florida coast between Cape Romano and Saint Petersburg; thus all within state waters.

Given the overall scarcity of smalltooth sawfish encounters in state waters where this species is believed to occur in greater abundance and density, the chances of a smalltooth sawfish being encountered during recreational

fishing in Federal waters are extremely rare. The MRFSS database has no records of smalltooth sawfish captured in Federal waters, let alone one during fishing targeting sharks. Therefore, NMFS believes that the chances of a recreational shark fisherman catching a smalltooth sawfish in Federal waters are discountable.

The final action to reduce the LCS commercial quota from 1997–2002 levels, resulting in a 45 percent reduction, is expected to reduce fishing effort for the shark bottom longline fishery. Effort reductions are not expected in the shark gillnet fishery because it primarily targets SCS, and drift gillnet fishing will not be eliminated by this final rule. The 2003 BiOp for the Atlantic shark fishery found that the reduction in bottom longline effort may result in a reduction of the number of sea turtle interactions. NMFS has no way of quantifying the effect on sea turtles at this time. Any such effort reductions will only reduce smalltooth sawfish interactions if effort reductions occur in the southern fishing areas where smalltooth sawfish are known to occur.

Although the time/area closure of North Carolina is expected in part to reduce the bycatch of prohibited species such as the dusky shark, the 2003 BiOp found it may have the added benefit of reducing potential sea turtle interactions. This benefit depends however, on how much effort reduction actually results from this action. Most bottom longline fishermen tend to fish close to their home port, so if redistribution of effort does occur, the effort is expected to redistribute to areas adjacent to or seaward of the closure. Sea turtle interactions may occur in these areas as well, thus reduced sea turtle interactions may not be realized if effort is merely redistributed. The time/area closure occurs north of where smalltooth sawfish occur, thus will provide no benefit to smalltooth sawfish. Conversely, should effort redistribute to the southern fishing grounds, smalltooth sawfish interactions could potentially increase as a result of the time area closure. Based on the expected area of any effort redistribution, however, NMFS believes the time/area closure will have no smalltooth sawfish impacts.

The requirement to have VMS on directed shark gillnet and bottom longline vessels will aid in enforcement of the time/area closure. Additionally, this measure could lead to improvements in effort data in this area which is used in estimating takes of protected species. Any such improvements however, would only

potentially benefit sea turtles, as again this would be in areas outside the range of smalltooth sawfish.

NMFS is not reducing the recreational bag limit but is working towards increasing compliance with existing regulations. NMFS is also restricting the authorized gear in the recreational fishery to handline and rod and reel. Post-release mortality of these gear types is lower than that of traditional commercial gears such as bottom longline or gillnet. Since these gears are presently not used in recreational fishing, little benefit to sea turtles and smalltooth sawfish is expected.

Some of the regulations in this final rule were specifically designed to reduce, to the extent practicable, bycatch and bycatch mortality of sea turtles and marine mammals. These alternatives include: requiring the use of corrodible hooks, de-hooking devices (once a de-hooking device is approved), dipnets, and line cutters on bottom longline vessels (similar to the requirements for pelagic longline vessels); and requiring bottom longline vessels to move 1 nmi after an interaction with a protected species (also similar to the requirement for pelagic longliners). The 2003 BiOp found these measures are expected to have a positive impact on protected species. Additionally, the 2003 BiOp concluded that non-stainless steel corrodible hooks for the directed shark bottom longline fishery will minimize impacts to sea turtles and smalltooth sawfish if they are accidentally hooked. De-hooking equipment should also safely release incidentally caught sea turtles.

Based on observer data, observed and self-reported effort data, and the distribution and density of sea turtles in the action area, NMFS anticipates that the continued prosecution of the Atlantic shark fisheries may result in take of protected species. Currently available information on the relationship between sea turtles and sawfish and the Atlantic shark fishery indicates that injury and/or death of sea turtles and smalltooth sawfish is likely to occur. Therefore, pursuant to section 7(b)(4) of the ESA, the 2003 BiOp anticipates an actual 5-year total incidental take for the Atlantic shark fishery of: (1) 172 leatherback turtles, of which 88 will be lethal; (2) 1370 loggerhead turtles of which 755 will be lethal; (3) 30 total in any combination of hawksbill, green, and Kemp's ridley, with 5 lethal takes per species; and (4) 261 smalltooth sawfish, of which no lethal takes are expected. The above take estimates were further broken down by gear type. These limits