

release equipment would aid enforcement and be more cost effective as a whole. These workshops could also serve as an educational forum for fishermen to learn the latest research and regulations, share concepts for their fishery that could be transferred to other fisheries (e.g., recreational to commercial), gain a feeling of stewardship of the environment and their fishery, learn release techniques in a controlled environment, and develop and promote educational video tapes or literature. The workshops would also give fishermen a chance to talk to, and receive answers from, people in NMFS about regulations they do not understand. This could lead to a better working relationship over time.

*Response:* NMFS intends to move forward with this measure in a future rulemaking that will evaluate alternatives and implementation issues. In the interim, NMFS will attempt to make voluntary workshops available to the public.

*Comment 7:* We remain deeply concerned that NMFS has failed to offer options for increasing compliance in the recreational fishery after repeatedly acknowledging that anglers do not adhere to the shark regulations and that this non-compliance may be inhibiting stock rebuilding. We urge NMFS to develop programs for angler education in species identification and other efforts to improve compliance. Angler training should be a pre-requisite for obtaining an HMS Angling category permit.

*Response:* NMFS agrees that angler education could significantly improve compliance in the recreational shark fishery. In Amendment 1, NMFS analyzed an alternative that would require commercial and recreational fishermen to attend mandatory workshops discussing shark (and possibly other) species identification, marine mammal, sawfish, and sea turtle release techniques, and current regulations. NMFS received public comment in favor of mandatory workshops, and while it appears that mandatory workshops would be beneficial, outstanding implementation and operational issues remain that need to be addressed. Based on these issues, NMFS intends to move forward with this measure in a future rulemaking, and will attempt to make voluntary workshops, informational pamphlets, and an identification guide available in the interim.

*Comment 8:* At this time, we cannot support mandatory workshops. Rather, increased fiscal and other agency resources need to be expanded to significantly increase the distribution

and availability of educational materials such as improved printed materials, electronic media, and more. Specific instructional/training workshops should be developed to focus on commercial fishing fleets/organizations, charter fishermen, tournament organizers, Marine Recreational Fisheries Statistics Survey (MRFSS)/other survey clerks, state/federal enforcement agencies, and more. Partnerships with other federal and state agencies to distribute this material should be explored.

*Response:* NMFS is working to increase outreach and available educational materials. Currently, NMFS is distributing Atlantic shark recreational fishery brochures containing information regarding HMS Angling category permits, HMS Charter/Headboat permits, bag limits and minimum sizes, release information, landing restrictions, the no sale provision, HMS tournament registration, tagging information, as well as species that may be retained, and species that must be released. NMFS is also currently producing an identification guide for sharks, tunas, and billfishes of the Atlantic and Gulf of Mexico. As discussed above, NMFS will explore mandatory workshops in a future rulemaking.

*Comment 9:* While the United States is trying to protect sea turtles, fishermen in Florida watch fishermen just outside the U.S. EEZ in Cuba and the Bahamas kill them. I recently watched one vessel in the Bahamas kill 39 sea turtles.

*Response:* Sea turtles are classified as endangered or threatened species in the United States and NMFS has implemented many measures to conserve these species. NMFS does not have the authority to determine how neighboring countries manage their resources, but will continue to pursue improvements in international sea turtle conservation measures.

*Comment 10:* Amendment 1 does not adequately address the incidental capture of threatened and endangered sea turtles in shark fisheries, especially shark bottom longlines. Reducing the rate of bycatch and reducing the mortality of sea turtles needs to be a primary priority. The impact of shark fisheries on sea turtles appears to be purposefully masked by key omissions in Amendment 1 about the level of sea turtle take and associated post-hooking mortality. The June 2001 BiOp estimates that 207 to 517 loggerheads are caught in the shark bottom longline fishery annually. Many of these animals probably die after release. Significantly more observer coverage is needed to improve confidence intervals. Amendment 1 fails to estimate and

discuss the implications of post-hooking mortality of sea turtles. The June 2001 BiOp provides estimates of post-hooking mortality on pelagic longlines. This mortality rate in bottom longlines is expected to be higher because the turtles are trapped on the bottom unable to breathe. Because effort in shark fisheries has increased since 2001, many hundreds of sea turtles are being killed annually in shark longline fisheries.

*Response:* NMFS Protected Resources Division has prepared a new BiOp for this rulemaking that analyzes the incidental capture of protected resources in the shark fisheries. An estimated 222 loggerhead sea turtles were incidentally caught in the shark bottom longline fishery from 1994 through 2002. Based on observer data and the reported effort in the shark bottom longline fishery, it is estimated that 51 loggerhead turtles will be killed as a result of an interaction with a bottom longline. The highest estimate of post release mortality for sea turtles interacting with pelagic longlines is 42 percent for turtles ingesting hooks. Assuming all loggerhead turtles that ingest a hook are subject to this mortality rate, results in another 72 loggerhead turtles will be killed. This gives a total of 123 loggerhead turtles killed per year as a result of an interaction with a bottom longline. An estimate of 30 leatherback sea turtles were incidentally caught from 1994 through 2002 in the shark bottom longline fishery. Using the same methodology for leatherback sea turtle interactions results in an estimate of 17 leatherback turtles killed each year in this fishery. The leatherback mortality is very conservative because it is known that leatherback turtles rarely ingest or bite hooks, most are usually foul hooked on their flippers or carapaces, reducing the likelihood of post-hooking release mortality. However, leatherback-specific data for this fishery are not available and therefore the most conservative estimate was used. NMFS agrees that the precision of the estimates is likely to improve with greater observer coverage. One of the conditions of the BiOp is that NMFS must continue to implement an observer program at current or higher levels to monitor incidental takes of protected resources in Atlantic (including Gulf of Mexico) shark fisheries. NMFS disagrees that effort in shark fisheries has increased since 2001. Based on reported effort in the logbook data and the observer programs, the total number of hooks set in the shark bottom longline fishery in 2000–2002, ranged from 2.5 to 2.7 million hooks per year. This level of