

with circle versus J-hooks in the Atlantic Ocean. Do not rely on studies from the Pacific Ocean because the sailfish are different between the oceans; more data from pop-up satellite (PSAT) tags and angler experience is needed to provide a foundation for any major change in regulations pertaining to marlins; has there been any research on exhaustion mortality, e.g., fighting fish for different times on different gear (drop back, hook type, etc) and the resultant impacts on mortality?; we see big blue marlin occasionally and are wondering about post-release mortality and catch-and-release rates. Predation should be considered in estimating post-release mortality; NMFS should conduct additional studies to identify more effective ways for the pelagic longline fishery to reduce bycatch of marlin and sharks; NMFS should evaluate the impacts of using "live bait" and circle-style hooks as well as careful handling and release tools and procedures; and, NMFS should further investigate how the feeding and behavior of Atlantic blue marlin may affect catch rates with circle hooks.

Response: NMFS appreciates these research recommendations as a way to help guide future research efforts and funds. The Agency is always looking for, and appreciative of, relevant research suggestions and additional data that can benefit the management of Atlantic HMS. The answers to many of the research suggestions could potentially benefit management. Some of the research suggestions contributed by commenters are currently under investigation by either NMFS or private sector entities. NMFS will consider these suggestions in the future, as appropriate.

Comment 56: Off-set circle hooks show less mortality than non off-set circle hooks.

Response: NMFS is unaware of data showing off-set circle hooks result in a lower mortality rate than non-offset circle hooks. NMFS would appreciate receiving any such data that may support this contention, and will consider it in future rulemakings, as appropriate.

Comment 57: The Agency has not published specifications for circle hooks and I am requesting clarification of the definition of "non-offset circle hooks" by NMFS because, in part, each manufacturer creates its own definition for non-offset circle hooks.

Response: A general definition of circle hooks is included in the current Federal regulations governing Atlantic HMS, and NMFS understands the desire of tournament operators for additional circle hook specifications. The current

definition of "circle hook" in 50 CFR 635.2 reads: "A circle hook means a fishing hook originally designed and manufactured so that the point of the hook is turned perpendicularly back toward the shank to form a generally circular or oval shape." NMFS is working on definitions for circle hooks. At this time, however, detailed hook specifications for each size circle hook that could be used in the recreational billfish fishery are not available. There are no standard industry hook specifications. As detailed in the discussion of the selected circle hook alternative in Chapter 4 of the Final Consolidated HMS FMP, NMFS finds that it is appropriate at this time to require the use of non-offset circle hooks in portions of the recreational billfish fishery to reduce post-release mortalities in the recreational billfish fishery. Further, to ease concerns of anglers and simplify hook choice, NMFS is considering working with hook manufacturers to ensure that all hooks marketed as circle hooks are true circle hooks.

Comment 58: The Maryland Department of Natural Resources submitted a comment indicating that they would be willing to work with NMFS to teach voluntary use of circle hooks, noting that anglers must learn how to fish these hooks and that education for the offshore fishermen is necessary.

Response: NMFS appreciates the State of Maryland's willingness to work with the Agency to reach out to anglers and educate them on the use of circle hooks. Circle hooks have been shown to effectively reduce post-release mortality of many species while having little impact on rates of catch. The Agency hopes that the offer by the State of Maryland will remain open given the mandatory circle hook requirements for tournaments in this rule.

Comment 59: NMFS's statement in the Draft Consolidated HMS FMP that increases in recreational fishing effort and stable fishing mortality indicate that white marlin are decreasing in number is incorrect. Fishing mortality has not increased, the recreational fishing community is releasing more of them.

Response: NMFS was unable to locate this statement in the Draft Consolidated HMS FMP. However, NMFS believes that the commenter may have intended to state that increases in recreational fishing effort and stable landings of white marlin indicate that white marlin may be decreasing in number. The number of recreationally landed Atlantic white marlin reported to ICCAT between 2001 and 2004 varied considerably, ranging from a high of 191

in 2002 to a low of 23 in 2003. The number of Atlantic white marlin reported to NMFS via the Recreational Billfish Survey has remained relatively stable over the same period. However, the release rate of live Atlantic white marlin in the recreational fishery has also remained stable. In the face of increased effort, a lack of increases in landings, when coupled with stable release rates, implies decreased angler success. Decreased angler success could be attributable to a number of factors. One factor could be that the fishing mortality rate of Atlantic white marlin is more than eight times higher than the population can sustain, so the stock size is diminished. Furthermore, as discussed in Chapter 4 of the Final Consolidated HMS FMP, the current estimate of recreationally caught Atlantic white marlin post-release mortality is now significantly higher than previous estimates, so an increase in the number of releases would be anticipated to result in additional mortalities.

Comment 60: Six to ten thousand white marlin are caught each year by U.S. fishermen, both commercial and recreational. I have data showing that commercial mortality is higher than recreational mortality in general, but in the past 6 years, the recreational mortality has exceeded the commercial mortality.

Response: New post-release mortality estimates allowed NMFS to examine total mortality contributions of the commercial and recreational sectors for Atlantic white marlin over the past four years. Mortality varies greatly by year and data set. In some years, using some data sets, the recreational mortality contribution appears to exceed the commercial mortality contribution and in some years the reverse appears to be true. Please see Appendix C in the Final Consolidated HMS FMP for more detailed information by year and fishery sector. Appendix C provides a range of mortality estimates, but does not attempt to definitively identify mortality contributions, rather, the estimates provided in that table are intended to provide reference points for discussion. NMFS will continue to examine this issue as new and refined data become available.

v. Elimination of the "No Sale" Exemption

Comment 61: The "no sale" exemption for Atlantic billfish should be removed. The sale of all billfish in the U.S. should be prohibited.

Response: NMFS agrees that the exemption to the no sale provision for Atlantic billfish should be removed.