

A. LCS Classification

In the 1999 HMS FMP, NMFS finalized measures that split the LCS complex into two species groups: ridgeback and non-ridgeback LCS. These groups used sandbar and blacktip sharks as proxies for the ridgeback and non-ridgeback species, respectively, and, due to the presence of a ridge on the back of the shark, these groups could be easily distinguished from one another. Because of this split, NMFS was able to set different quota levels based on the results of the stock assessment and close the fisheries for these groups at different times. Due to delays caused by litigation, this measure was implemented for the first time in 2003 (67 FR 78990, December 27, 2002).

Since implementation, environmental groups and commercial fishermen raised multiple concerns regarding closing these groups at different times and the potential for increased bycatch due to the mixed nature of the fishery. Additionally, NMFS heard that, because sandbar and blacktip sharks had similar status designations as the complex in 1998 (i.e., overfished and overfishing occurring), using them as proxies for other species was acceptable in 1998; however, given their current status compared with the status of the LCS complex, NMFS should no longer use those species as proxies because it could lead to further overfishing on the LCS species that have not yet recovered under the management program.

After considering these comments, the LCS stock assessment, the peer reviews, and potential ecological, social, and economic impacts, NMFS is proposing to re-aggregate the LCS complex and establish one closure date. While re-aggregating the LCS complex could result in a lower quota level and, therefore, have additional economic impacts compared with some of the other alternatives considered, the preferred alternative reduces the burden of fishermen regarding sorting; maintains historical fishing practices and, therefore, reduces the chance of confusion over when the seasons are open or closed; and does not result in additional regulatory discards. Over time, as the LCS complex rebuilds, it is likely that quota levels based on the aggregate could be increased. Additionally, unlike some of the other classification methods, the aggregate classification fully considers the ability of all species, including the secondary species, to rebuild.

NMFS also considered alternatives that would keep the ridgeback/non-ridgeback LCS split and close the fishery at the same time; aggregate the

LCS complex and close the fishery based on the landings of the most vulnerable species; and establish more species-specific quota levels. NMFS did not prefer the first two alternatives because while they could rebuild the fishery, they could also lead to a situation where one group's or one species' quota was continually not being landed. The species-specific alternative was not preferred because, while the resulting quotas could be higher thus mitigating economic and social impacts, due to the mixed nature of the fishery and problems regarding identification of sharks, this alternative would likely lead to increased discard and bycatch levels.

B. Shark Quota Administration

Since 1993, Atlantic shark fisheries have been managed via two semi-annual fishing seasons: January through June and July through December. Under this management measure, the Atlantic Ocean, Gulf of Mexico, and Caribbean Sea close to shark fishing once the quota is reached. While this management measure provides a straightforward administration of the fishing seasons, it does not give NMFS the flexibility to manage the fisheries based on differences between regions or based on different pupping seasons for different species. In order to give NMFS that flexibility, NMFS proposes changing the semi-annual seasons to trimester seasons and establishing regional quotas.

The quota would be split equally between trimesters, and regional quotas would be based on historical fishing effort for each species group. However, in the future, NMFS could change the trimester and regional quotas in order to ensure that the fishery has the opportunity to harvest the annual quota and/or to protect pupping seasons, as necessary. Thus, in the future, if one region usually reaches or exceeds the quota from one trimester and rarely reaches the quota for another trimester, NMFS could adjust the quotas for each trimester so both quotas are reached. Additionally, if one region often exceeds its annual quota while another region does not, NMFS could decide to adjust the regional quotas to facilitate the harvest of the entire annual quota.

Similarly, if a particular species of shark needs additional protection during its pupping season and/or for its pupping grounds, NMFS could adjust trimester and regional quotas, as appropriate.

NMFS also considered quarterly seasons but did not prefer that alternative because under this alternative most pupping seasons would

be split across two different fishing seasons. Thus, under the preferred trimester alternative, NMFS could, if needed, close one trimester and stop fishing during the majority of the pupping seasons. However, under a quarterly season, NMFS would need to close two quarterly seasons to stop fishing during the majority of pupping seasons.

C. Shark Quota Basis

As described in the 1993 Shark FMP, the 1993 LCS shark quota was established based on an estimate of MSY. The pelagic shark quota was based on average landing estimates because an estimate of MSY was not available. In 1997, based on a 1996 LCS stock assessment, NMFS, assuming that a 50-percent reduction in fishing mortality was approximately a 50-percent reduction in catch, reduced the quota accordingly. Also in 1997, NMFS established a SCS quota level based on estimates of MSY from the 1992 stock assessment. As described in the HMS FMP, NMFS established the 1999 LCS quotas, in part, by reducing the 1997 quotas levels by fishing mortality reductions recommended by the LCS stock assessment. Thus, in recent years, except for 2003, the commercial quotas for LCS and SCS have been based on older estimates of MSY as reduced several times by different recommended levels of fishing mortality reductions. This recent practice of setting quotas has led to confusion over where and when in the process discards and state landings after federal closures should be accounted.

To alleviate this confusion, NMFS is proposing a process that bases the starting level on the MSY level estimated in the stock assessment. That level is then reduced, as appropriate, to ensure that optimum yield (OY) can be harvested from the fishery. For stocks that are not overfished (e.g., SCS complex), OY is MSY reduced by 25 percent. For stocks that are overfished (e.g., LCS complex), MSY is reduced by the amount recommended in the stock assessment, tempered by other management measures that could decrease shark mortality. The commercial quota is the proportion of OY that is equal to the proportion of commercial landings in recent years by federal and state fishermen. The proportion of recreational landings and dead discards from OY is not included in the commercial quota. Thus, under this procedure, MSY, adjusted to ensure OY, is similar to a total allowable catch level and dead discards are accounted for before the commercial quota is established. Landings by state fishermen