

SCIENTIFIC AND STATISTICAL COMMITTEE STATEMENT ON POTENTIAL MODIFICATION OF
FISHERY MANAGEMENT PLAN PREFERRED ALTERNATIVE FOR HIGH SEAS LONGLINE FISHING
IN RESPONSE TO SEA TURTLE IMPACT ANALYSIS

The Highly Migratory Species (HMS) Subcommittee of the Scientific and Statistical Committee (SSC) met April 30, 2003 at Hubbs Sea World Research Institute, San Diego, California. Dr. Jim Carretta (NMFS-Southwest Fisheries Science Center) presented his statistical analysis of sea turtle take rates by the high seas longline fishery for swordfish. The Subcommittee's primary task was to assess the validity of the analysis of take rates west and east of 150° W longitude. The SSC considers Fisher's exact test to be an appropriate statistical method for analyzing data of this type. Leatherback and loggerhead turtle hooking rates were not significantly different east and west of 150° W longitude, however, an analysis of whether the data were sufficient to detect differences was not performed.

The appendix of the report provides hooking rates in easterly longitudes for each quarter, with nominal rates appearing lower east of 140° W longitude. This has opened the question of whether a longline fishery may be prosecuted farther east than the proposed line (e.g., east of 140° W longitude as proposed by the HMS Plan Development Team in Exhibit F.2.c) to reduce the risk to protected turtle species. The SSC notes that Fisher's exact tests were not performed on the data, nor is it clear that the data would support such an analysis. With the possible exception of the 4th quarter, the number of sets observed is low.

The biological impacts of the hooking rates on the turtle populations were not assessed. Until an 'acceptable' level of annual take has been defined for either turtle species, a discussion of acceptable hooking rates may be premature. Another issue that was not considered in the analysis is the impact on the turtle populations of the domestic fishery compared with the international fishery that operates in the same waters.

PFMC
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