

Attachment 6h. Speckled Hind and Warsaw Grouper Estimated Discards

NOTE: This summary document was prepared per an SSC comment and suggestion, but it has not been provided to nor reviewed by the SSC. The information has not yet been reviewed by the SEFSC.

ESTIMATED DISCARDS OF SPECKLED HIND AND WARSAW GROUPE

Southeast Regional Office

May 17, 2012

Per the SSC's April 2012 request, I have estimated recreational and commercial discards of speckled hind and warsaw grouper. Recreational discards are estimated by extrapolating the captain-reported 'released fish' from the Southeast Fisheries Science Center's Headboat Survey and then adding the MRFSS-estimated B2 (discarded) catch. Commercial discards are extrapolated from the commercial discard logbook, with discard rates applied to the overall effort by gear and year in the South Atlantic as a ratio estimator. It should be noted that commercial discard rate would likely be estimated by SEDAR using a model-based approach. Due to the low encounter rate and my lack of familiarity with how they might do a model-based approach, I just did a straight ratio estimator. Note that variability is high and may mask any 'true' trend due to management history (see Appendix).

RECREATIONAL DISCARDS:

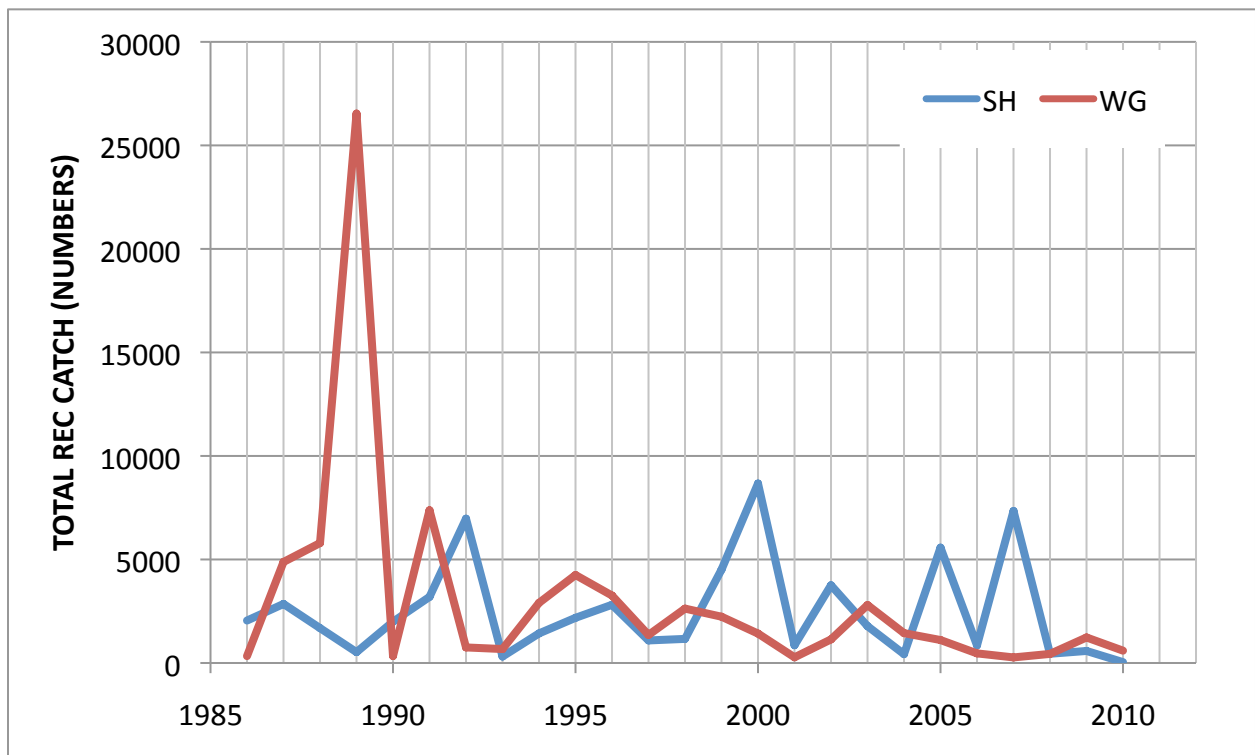


Figure 1. Estimated recreational discards of speckled hind (blue) and warsaw grouper (red) in the SAFMC between 1986-2010.

COMMERCIAL DISCARDS:

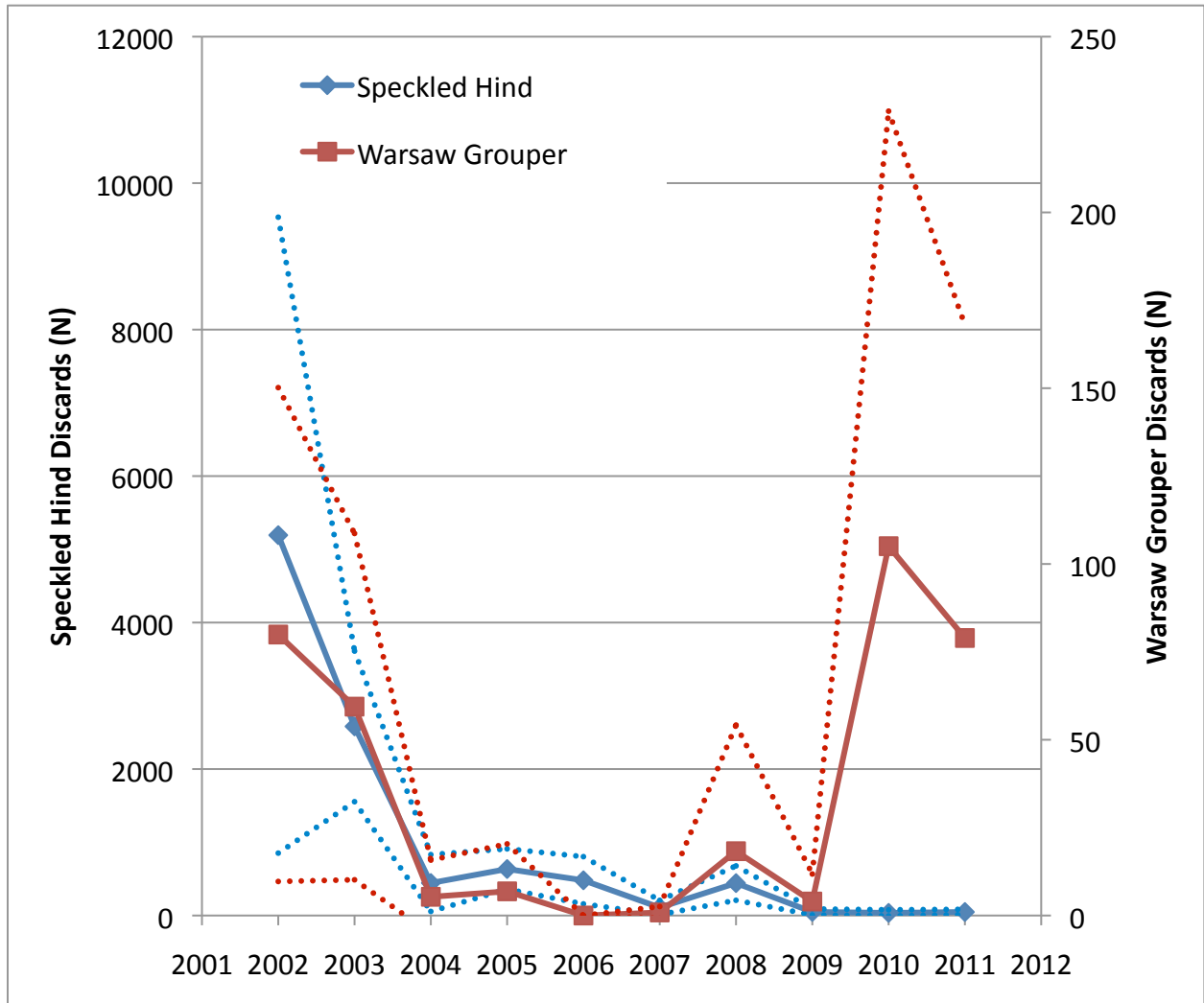


Figure 2. Estimated commercial discards of speckled hind (blue) and warsaw grouper (red) in the SAFMC between 1986-2011. Dotted lines represent 95% confidence intervals for ratio-estimated discards.

APPENDIX: MANAGEMENT HISTORY FOR SPECKLED HIND AND WARSAW GROUPER

--Speckled hind and warsaw grouper regulations went from inclusion in the five grouper aggregate recreational bag limit in 1992 (56 FR 56016), to a commercial and recreational limit of one per vessel of each species with a commercial sale prohibition of these species in 1994 (59 FR 27242), to a complete harvest prohibition of both species in 2011 (75 FR 82280).

--The 240 ft (73 m) prohibition was implemented on January 31, 2011, through Amendment 17B to the Fishery Management Plan for the Snapper-Grouper Fishery of the South Atlantic Region (Amendment 17B).

--Amendment 17B implemented a possession prohibition of six deep-water snapper-grouper species (snowy grouper, blueline tilefish, yellowedge grouper, misty grouper, queen snapper, and silk snapper) harvested in depths greater than 240 feet (40 fathoms) in the South Atlantic exclusive economic zone.

--Amendment 17B implemented a harvest prohibition of speckled hind and warsaw grouper as both the Scientific and Statistical Committee's (SSC) acceptable biological catch (ABC) recommendation and the annual catch limit (ACL) established by the South Atlantic Fishery Management Council (Council) are equal to zero (landings only).

--Regulatory Amendment 11 eliminated the possession prohibition of six deep-water snapper-grouper species (snowy grouper, blueline tilefish, yellowedge grouper, misty grouper, queen snapper, and silk snapper) harvested in depths greater than 240 feet (40 fathoms) in the South Atlantic exclusive economic zone, effective May 10, 2012.

--"Warsaw grouper was assessed by catch curve analysis using data from 1988 and 1990 (Huntsman et al. 1992). Because warsaw grouper are infrequently caught, a single length frequency was constructed from several years (e.g., 1983-1988) for the assessment of the 1988 fishing year and 1989-1990 length samples were used for the 1990 fishing year. A limited age length key was applied to the length frequency to obtain catch-at-age data. No reproductive biology data were available; therefore, for SPR calculations the assumption for age-at-maturity was based on $\frac{1}{2} L_{\infty}$. Static SPR values for warsaw grouper were 0.2% and 6% for 1988 and 1990 fishing years, respectively." [SG Amendment 17B, section 3.3.9]

"Speckled hind was assessed for the 1988, 1990, 1996, and 1999 fishing years (NMFS 1991; Huntsman et al. 1992; Potts and Brennan 2001). Length frequencies for each fishing year assessed was constructed from that year's data. Length samples came primarily from the commercial fishery. Lengths for 1996 and 1999 were limited by the management restriction of one speckled hind per trip. Age and growth data were available but there were no reproductive biology data. The assumption of $\frac{1}{2} L_{\infty}$ as the age of maturity was used for estimating the static SPR. SPR values were 25%, 12%, 8%, and 5% for 1988, 1990, 1996, and 1999 fishing years, respectively." [SG Amendment 17B, section 3.3.10]