

**SEDAR Update**

# **Advisory Report**

on the status of the stocks of

## **Vermilion Snapper from the Southeast of the U.S.**

**South Atlantic Fisheries Management Council  
Scientific and Statistical Committee Meeting  
Key West, FL 33040  
June 10 – 13, 2007**

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# Update Advisory Report on Stock Status Vermilion Snapper Key West, FL 33040 June 10 – 13, 2007

## 1. Status of Stock

The assessment update supports the findings of the benchmark assessment and indicates that overfishing is occurring. Because of the uncertainty in the spawner-recruit relationship, the Scientific and Statistical Committee (SSC) did not have confidence in the calculated biomass reference points. As such, the status of the stock as overfished could not be determined. Additionally, biomass benchmarks defined under the SFA were not estimated due to the same uncertainty.

## 2. Biological Reference Points

### *Previous Assessment*

The Review Panel for the benchmark advised the following –

1. Use  $F_{\max}$  (estimated as 0.355/yr) as a proxy for  $F_{\text{msy}}$  (MFMT);
2. Therefore, the proxy for MSY may be taken as the yield associated with  $F_{\max}$ ;
3. Estimates of MSST are poorly determined and range from 185 billion to 378 billion eggs, for values of steepness ranging from 0.7 to 0.95 and of the natural mortality rate ranging from 0.25 to 0.3 per year.

### *Current assessment*

The SSC advised the following based on the updated assessment –

1. Continue to Use  $F_{\max}$  (estimated as 0.375/yr) as a proxy for  $F_{\text{msy}}$  (MFMT);
2. The proxy for MSY may be taken as the yield associated with  $F_{\max}$ ;
3. Based on the current definition of  $F_{\text{OY}}$ , in order to fish at this level a 61% reduction of the total catch (resulting in landings of 628,459 lbs) would be necessary. This calculation was based on the yield per recruit at the geometric mean of the 2004-2006 fishing mortality rates as compared to 75% ( $F_{\max}$ ).
4. Recommended against using the biomass estimates for management.

## 3. Forecast

Although the status of the stock as overfished is unknown, the  $F$  values continue to indicate that overfishing continues and that it is occurring at a slightly higher rate. If this trend continues, the stock could be at, or approaching, an overfished state.

**4. Special Comments**

The SSC indicated that the updates to the data stream did add useable information to the assessment and as such, did not recommend the update be redone. The SSC did, however, recommend moving up the scheduled benchmark assessment.

**5. Source of Information**

Report of Stock Assessment: Vermilion Snapper. SEDAR Update Process # 3. Assessment Workshop, April 2 –4, 2007.