

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON
PRELIMINARY HARVEST LEVELS AND OTHER SPECIFICATIONS FOR 2003

Dr. Jim Hastie presented an overview of the Groundfish Management Team (GMT) preliminary acceptable biological catch (ABC) and optimum yield (OY) determinations for 2003 (Exhibit C.4, Attachment 1). The Scientific and Statistical Committee (SSC) comments on ABC and OY determinations for Pacific whiting, sablefish, and yelloweye rockfish as follows:

Pacific whiting - Pacific whiting was declared overfished because of a recently completed assessment that estimated spawning biomass to be 20% of an unfished stock in 2001. The rebuilding analysis for whiting indicates that the 40-10 rule is adequate to achieve recovery to $B_{40\%}$ within 10 years. The potential rapid recovery of whiting is due to an above-average (but still uncertain) 1999 year-class that would increase spawning stock biomass as it becomes mature and due to the relatively high growth rate of whiting. The SSC recommends that any 40-10 rule OY values be based on the results of the assessment conducted in 2002 rather than the rebuilding software, because the 2002 assessment model includes multiple fisheries and time-varying weight-at-age. The 2002 whiting Stock Assessment Review (STAR) Panel concluded that "given concerns with the current formulation of the stock reconstruction model and the dependence of yield options beyond 2002 on continued recruitment of the 1999 year-class and recruitment from year-classes not actually observed, the Panel recommends against adopting 2003 projections until another assessment is conducted." The SSC again strongly supports this recommendation.

Sablefish - An updated assessment for sablefish was completed in 2002 and reviewed under the terms of reference for an expedited stock assessment update. Sablefish was considered for an expedited review, because of 2001 shelf survey results that suggested strong sablefish recruitment (primarily the 1999 year class) that was not included in the previous assessment. Contrast in the relative abundance of young fish in the shelf and slope surveys in 2001 resulted in a relatively large decrease in the slope survey catchability (Q), which translates into a substantial increase in the sablefish OY. The SSC cautions that the estimate of Q, and the implied estimate of sablefish OY remain highly uncertain. Management decisions should be made with the expectation that future sablefish assessments will result in similarly large swings in Q and the implied sablefish OY (both upwards and downwards).

Exhibit C.4, Attachment 1 show three alternatives for 2003 OY: a density-dependent recruitment scenario (alternative 2), a regime-shift scenario (alternative 3), and an $F_{60\%}$ density-dependent scenario that was developed by the Groundfish Management Team (GMT) to stabilize the spawning stock biomass (currently estimated to be 31% of unfished). Given the potential for an OY based on an imprecise stock assessment to reduce spawning stock biomass to a level approaching the overfished threshold, the SSC considers that a precautionary adjustment to the OY is warranted. This could be accomplished by setting the sablefish OY less than Alternative 2 of Exhibit C.4, Attachment 1, while Alternative 1 might usefully be considered as a lower bound to the sablefish OY.

Yelloweye rockfish - The yelloweye rockfish OY is based on a rebuilding analysis that considers two cases: a density-dependent hypothesis (scenario 1), and regime-shift hypothesis (scenario 2).

The SSC requests that, for consistency, the rebuilding analysis define B_0 for the regime-shift hypothesis (scenario 2) on recruitments for the years 1967-1993 and project future recruitment for the density-dependence hypothesis (scenario 1) on recruits/spawning output ratios for the years 1983-1993. The assessment author provided the SSC with revised rebuilding analysis results.

The SSC has no clear basis to choose between the two scenarios for yelloweye. These scenarios bound the range of possibilities. However, the SSC notes that the Terms of Reference for Groundfish Rebuilding Analysis (April 2001) suggest that the density-dependent scenario should be the default case, because stocks that have declined into an overfished condition are more likely to be unproductive (e.g., low spawner-recruit steepness).