

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON
PRELIMINARY HARVEST LEVELS AND OTHER SPECIFICATIONS FOR 2002

Dr. Jim Hastie presented an overview of the Groundfish Management Team (GMT) preliminary acceptable biological catch/optimum yield determinations for 2002 (Exhibit C.3, Attachment 1). We wish to highlight that the new EDCP model-based estimates of discard rates (reviewed by the SSC in Sept 2000) were used to estimate total catch of sablefish, Dover sole, shortspine, and longspine thornyhead. This is a major improvement over the standard Pikitch *et al.* (1988) adjustments which are calculated as a fraction of the landed catch of the species being estimated. All rockfish discard adjustments (16% of landed catch) continue to come from Pikitch *et al.* (1988).

Based on Dr. Hastie's presentation, the Scientific and Statistical Committee (SSC) notes:

Lingcod - The OY is based on a rebuilding analysis and will incorporate a 20% discard rate landing adjustment.

Whiting - There will be a new stock assessment in winter 2002.

Sablefish - This was a 2001 Stock Assessment Review (STAR) Panel species. Uncertainties in the assessment pivot on density dependent versus environmentally driven recruitment, estimates of current relative to virgin biomass, and the level of F_{MSY} . The bottom line is that the levels of recruitment observed in the 1990s cannot sustain very high harvests. Three OY options were presented. The SSC notes that the low option (3,200 mt) is estimated to prevent the population from falling below the $B_{25\%}$ rebuilding trigger for the next 5 years under 3 out of 4 of the scenarios evaluated. For this reason, the SSC supports this option. In addition, given the low recruitments in the 1990s, it seems prudent to consider moving to a more conservative $F_{50\%}$ harvest strategy. The discard rate landing adjustment was approximately 13% overall based on the EDCP trawl rate of 20%.

Dover sole - The GMT had the same concerns about Dover sole recruitment as sablefish - that recruitment levels observed in the 1990s cannot sustain high harvest levels. The GMT estimates a downward biomass trajectory in the absence of substantial boosts in recruitment. The discard adjustment was estimated based on EDCP data (~5%).

Shortspine - The discard adjustment was 20% based on EDCP. The ABC/OY has increased marginally from last year.

Longspine - There was no new assessment. The discard adjustment was 17% based on EDCP.

Widow - The GMT presented a range of OYs based on 60%, 70%, 80% likelihood of recovery in the allotted time. Dr. Hastie pointed out that a major drop in widow OY could impact yellowtail management, particularly as regards bycatch rates in the midwater trawl fishery.

Pacific ocean perch - OY estimates are based on a new rebuilding analysis. Concerns were expressed over the magnitudes of recent year classes as well as anticipated downward adjustments of historical foreign POP catches. The latter should reduce estimates of historic biomass and current estimates of OY. The SSC thus recommends adopting the lower OY associated with a higher likelihood (80%) of recovery in the allotted time.

Yellowtail - Once again, Dr. Hastie expressed concern about the yellowtail/widow catch ratios in the midwater trawl fishery and how these might affect the yellowtail fishery.

Chilipepper - Recent harvests have been below OY, because of bocaccio bycatch.

Bocaccio - Dr. Hastie expressed concern that the bocaccio harvest may have exceeded the 3 year 100 mt OY due to uncertainties in the recreational catch data. As a result, OY may need to be adjusted downward.

Yelloweye - This is a new stock assessment. Dr. Hastie said that the recreational fishery may need additional regulation to protect both bocaccio and yelloweye rebuilding.

Black - This was a STAR Panel species. However the Oregon/Northern California assessment had to be retracted after the STAR panel met, because errors were discovered in the input data provided to the STAR Panel process. The SSC suggests that in the future individuals responsible for the input data to a stock assessment be fully integrated into Stock Assessment Team (STAT) Team activities. If this is not possible, then the raw data and documentation should be supplied to the STAT Team.

Dr. Hastie then presented an overview of his *Sebastes* discard paper (Exhibit C.3, Attachment 4). He pointed out a number of problems associated with using the Pikitch *et al.* (1988) study as a discard baseline.

- 1) The gear has changed substantially since the study was done.
- 2) Stock biomasses have changed substantially since the study was done. For example based on the NMFS survey, the ratios of widow, canary, and yellowtail to flatfish are much lower now than they were at the time of the study.
- 3) Trip limits today are substantially lower than they were in the late 1980s.

Dr. Mark Powell (The Ocean Conservancy) presented an overview of his groundfish bycatch and discard assessment (Exhibit C.3.e, Public Comment). His major recommendation is that "bycatch must be recognized as resulting from fishing activities that target other species, and bycatch estimates should link bycatch to the level of catch of the target species." He recommends that this be done by using the NMFS triennial survey to estimate species co-occurrence ratios as a baseline. However no explicit estimation algorithm or method is proposed to estimate bycatch and, subsequently, discard. The SSC agrees with his basic premise - that bycatch and discard should be estimated from specific targeted fishing activities and not from landings of the species being estimated. However the estimation process is much more complicated than Dr. Powell suggests and will require a major long-term research effort in order to develop (see item 2 below).

The SSC discussed the whole issue of bycatch and discard estimation and has the following recommendations:

- 1) The SSC groundfish subcommittee will work closely with the GMT in developing and refining short-term discard estimates to be presented at the November 2001 meeting. In addition, the SSC will carefully examine any changes in discard estimates which the GMT presents in November based on their upcoming reanalysis. The GMT will be using Pikitch *et al.* (1988), EDCP, logbook and the current Washington exempted fishing permit program to attempt to identify discard rates by target fishery, trying to make adjustments for changes in trip limits and stock biomass levels between the time the data were collected and the present. The SSC looks forward to seeing the results of this analysis.
- 2) In our view, simple analyses of co-occurrence (essentially catch ratios) in the NMFS survey will not provide a better discard estimation procedure than that currently used by the GMT. However, over the longer term, this type of analysis - coupled with the more comprehensive development of a multispecies model which incorporates fishery, observer, and survey data - should be encouraged. In order to come to fruition, this process needs to be initiated as soon as possible.
- 3) The SSC expects the new observer data will be used to estimate discards for the 2003 cycle. In addition, as this data set matures we anticipate that it will be used as an aid to inseason

management.

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