

closed area that was implemented to protect overfished groundfish species.

When the 2003 specifications and management measures were developed for the Pacific Coast groundfish fishery in the fall of 2002, the Pacific Council's Groundfish Management Team (GMT) developed a bycatch scorecard to project and track estimated mortality of overfished groundfish species during 2003. The bycatch scorecard represents the best estimates of total catch and is an aid for making management decisions. The scorecard estimates which sectors are taking which overfished species and roughly how much of those species. This scorecard is updated throughout the year as catch data become available and was also updated using observer data. At the Pacific Council's June meeting, the scorecard was updated for inseason adjustments to be effective July 1. The proposed inseason adjustments presented at the June Council meeting remained below the OYs for all overfished species. Because estimated total mortality of all overfished species remained below their OYs for 2003, the California Department of Fish and Game (CDFG) proposed an additional inseason management measure to change the commercial non-trawl and recreational boundary line south of 34°27' N. lat. from 20–fm (37–m) to 30–fm (55–m) to provide some additional fishing area to these sectors. The GMT and Pacific Council then reviewed analysis presented by CDFG on estimates of total mortality based on this change in the boundary line. With estimated total mortality as a result of these changes incorporated into the bycatch scorecard, estimated take of all overfished species remained below the OY for those species, except for bocaccio. Total estimated take of bocaccio, coastwide in all sectors, is predicted to be 21.72 mt in relation to a ≤20 mt OY for 2003 (1.72 mt over the OY). The Pacific Council and NMFS normally implement management measures that are projected to keep the fishery within the OYs for all species, especially overfished species. However, new information on the status of bocaccio that was presented at the June Council meeting indicates that bocaccio is healthier than had been thought at the beginning of 2003. Therefore, as explained below, taking into account this information and the severe adverse economic impacts from the 2003 management measures on the commercial and recreational non-trawl fisheries in southern California, the Pacific Council recommended the change to the boundary line off southern California.

A new stock assessment conducted in 2003 by NMFS, Southwest Fisheries Science Center shows notably increased biomass and productivity for the southern stock of bocaccio compared to the estimated biomass on the 2002 stock assessment and rebuilding analysis. Harvest specifications and management measures for 2003 were shaped by stock assessments for bocaccio, canary rockfish, and yelloweye rockfish, as well as sablefish and whiting. Based on consideration of a 2002 bocaccio stock assessment, rebuilding analysis, and a sustainability analysis, the Pacific Council recommended and NMFS approved an OY for bocaccio of ≤20 mt in 2003.

In May 2003, a new stock assessment and rebuilding analysis for bocaccio were released by the Southwest Fisheries Science Center. The new assessment is different from the bocaccio assessment in 2002, which had indicated that the 1999 year class for bocaccio was weaker than previously thought. The 2002 assessment results were driven by the 2001 Triennial Survey which showed very low abundance of bocaccio and no sign of the 1999 year class. For the new assessment, additional information on larval abundance from the California Cooperative Oceanic Fisheries Investigation, and both length and catch per unit effort (CPUE) data from recreational fisheries were used. The new data, which also assumed a new rate of natural mortality (0.15 as opposed to 0.20 in the 2002 assessment), indicate a much stronger 1999 year class and a sharp increase in abundance. The assessment and rebuilding analysis were reviewed by the Pacific Council's Stock Assessment Review Panel (STAR Panel) and presented to the Pacific Council at the Pacific Council's June 2003 meeting. To bracket uncertainty from the apparently conflicting signals in the different data sources, the STAR Panel recommended two models, STAR B1 and STAR B2. STAR B1 omits data from the Triennial Surveys and holds the estimated recruitment constant to 1959, whereas STAR B2 omits the recreational CPUE data and holds estimated recruitment constant to 1969. Each of these models de-emphasizes the other data source. The Stock Assessment Team (STAT Team) considered a third model, STAT C, that considered both data sources to be important and thus, included both data from the survey and recreational CPUE, and holds estimated recruitment constant to 1959, and places a low emphasis on the stock-recruitment relationship to stabilize estimates of

post-1999 recruitment. The results of the STAT C model were not complete during the STAR Panel review. The STAR Panel did briefly discuss the STAT C model and rejected the approach of the STAT C model because the two sources of data used in the model were contradictory. The results from the STAR Panel review and the third model produced by the STAT Team were then reviewed by the Pacific Council's Scientific and Statistical Committee (SSC) at the June Council meeting. The SSC and other advisory bodies to the Pacific Council (Groundfish Advisory Panel (GAP) and GMT) made recommendations to the Pacific Council based on the new stock assessment and rebuilding analysis, which are considered to be the best available science. The SSC felt the STAT C model was a reasonable way to integrate the survey and CPUE data and, therefore, recommended use of the STAT C model for bocaccio.

Based on the new stock assessment and rebuilding analysis discussed above, the Pacific Council adopted a preliminary range of OYs for bocaccio for 2004. The range of OYs contemplated for 2004 (199–526 mt) is an order of magnitude higher than the ≤20 mt OY implemented for management in 2003. Based on the new bocaccio stock assessment and rebuilding analysis, the Pacific Council also decided it could provide some relief in 2003 to the severely constrained commercial and recreational fishers in southern California without risk to the status of the bocaccio stock.

Generally, stock assessments that are released in 2003 would only be used for management in 2004 and beyond. In this case, however, the new assessment and rebuilding analysis forecast are being considered in implementing this emergency rule to allow for a change in the management measures which is projected to cause the OY for bocaccio to be exceeded. Because of the new science for bocaccio that indicates a modest increase in bocaccio harvest in 2003 should not interfere with stock rebuilding and because of the severe restrictions commercial non-trawl and recreational fisheries in southern California are experiencing, the Pacific Council recommended to NMFS to use the knowledge of the improved bocaccio forecast as a means to relieve restrictions on southern California fisheries without additional risk to the status of the stock.