

entire limited entry trawl fleet, in terms of either the total amount or depth distribution of all cowcod bycatch. However, they may serve as a general indicator of the depth-distribution of cowcod bycatch and the potential effectiveness of the conservation area.

The source of all 1,764 lb (800 kg) of cowcod landings in 2001 is unclear at this time. A small amount (100 lb, 45 kg) of the cowcod appear to have been retained during NMFS survey cruises where research catch is sold to offset the survey costs. The remainder is most likely attributable to fishers mis-identifying the species and landing them as part of other market categories. When those categories are sampled for species composition and cowcod are found, the ratio of pounds of cowcod to total pounds is then applied to the entire market category for that sampling unit (gear/period/port group) to estimate the total amount of cowcod that were landed. The cowcod landings in 2002 were further reduced over 2001.

Comment 4: One commenter stated that the OY for darkblotched rockfish was too low because it was based on an 80 percent probability of rebuilding by T_{max}, suggesting that a 60 percent probability of rebuilding by that date was a reasonable standard for meeting rebuilding requirements. Conversely, another commenter stated that the OY level for darkblotched was too high because it is higher than catch limits that were in force in 2001. This second commenter also notes that the 2003 specifications claim a higher likelihood of rebuilding than claimed in the 2002 specifications.

Response: The goals of rebuilding programs are to achieve the population size and structure that will support MSY within a specified time period while minimizing to the extent practicable, the social and economic impacts associated with rebuilding, including adverse impacts on fishing communities.

NMFS guidance on rebuilding plans specifies that the minimum possible time to rebuild is the time to rebuild in the absence of fishing. For darkblotched rockfish, the minimum time to rebuild is 14 years (2014). The mean generation time for darkblotched rockfish is 33 years, therefore the maximum allowable time to rebuild would be 47 years (2047). In determining the target rebuilding time period NMFS guidance recommends that the target rebuilding time be shorter than the maximum allowable time. The recommended default in section 3.4 of the technical guidance document (Technical Guidance On the Use of Precautionary Approaches to Implementing National

Standard 1 of the Magnuson-Stevens Fishery Conservation and Management Act NOAA Technical Memorandum NMFS-F/SPO-u July 17, 1998) is that the target rebuilding time not exceed the midpoint between the minimum and maximum possible rebuilding times (T_{mid}).

A draft rebuilding analysis was prepared in May 2001 and presented to the Council at its June 2001 meeting. This draft analysis was revised by NMFS in August 2001 and was adopted by the Council at its September 2001 meeting. The new analysis indicated that the stock was more depleted than originally estimated (12 percent vs 22 percent of unfished biomass,) and that the stock could not be rebuilt within 10 years as was previously thought. Therefore, the OYs since 2002 reflect an extended rebuilding trajectory.

The 2002 OY of 168 mt, was based on a 70 percent probability of rebuilding the stock to MSY by T_{MAX}. This is equivalent to a T_{TARGET} of 2034. The 2003 OY of 172 mt is based on the rebuilding analysis, which has a 80 percent probability of rebuilding the stock to MSY by T_{MAX}. This is equivalent to a T_{TARGET} of 2030. The Council recommended and NMFS agrees, that an OY of 172 mt for 2003 provides a reasonable balance between the length of time for rebuilding the stock and the adverse economic impacts to the limited entry trawl sector. The projected darkblotched biomass increase results in a higher OY even though the rebuilding time is shorter.

Comment 5: The OY for Pacific ocean perch (POP) is too low because it was based on a 70 percent probability of rebuilding by T_{target}. A 60 percent probability of rebuilding by that date is a reasonable standard for meeting rebuilding requirements.

Response: In 2001 the POP rebuilding analysis was updated with the most recent scientific information. In 2002, the OY of 350 mt reflected a 70 percent probability of rebuilding by the year 2042. For 2003, three OYs based on the most recent rebuilding analysis and corresponding to 50, 70, and 80 percent probabilities of rebuilding the stock by the year 2041 were presented to the Council. The Council recommended OY of 377 mt which corresponds to a 70 percent probability of rebuilding the stock by 2041. This OY was chosen because it was consistent with the interim rebuilding strategy adopted by the Council in prior years.

NMFS agrees with the Council's recommendation, and believes that increasing the OY for POP to a level that corresponds to a 60 percent probability of rebuilding the stock by 2041 provides

little if any benefit to fishers. Because POP is a slope species and is found in similar areas as darkblotched rockfish, measures to protect darkblotched rockfish reduce the availability of POP to the commercial fishery. The best available data on December 31, 2002 indicates that only about 50 percent of the available OY for POP was landed in 2002. With the 2003 conservation areas, there will likely be fewer opportunities for vessels to directly or indirectly take POP, therefore there would be no benefit to fishers from raising the OY.

Comment 6: The yelloweye rockfish OY is 63 percent higher than in 2002. While the agency suggests that yelloweye rockfish is in better shape than it was a year ago, the higher OY results in a rebuilding period that is 15 years longer than it would have been under 2002 harvest levels.

Response: For 2002, the ABC for yelloweye rockfish was set in acknowledgment that this stock would be designated as overfished and was based on the recommendation from the stock assessment author and the Stock Assessment Review Panel that reviewed the assessment. The Council adopted a total catch OY for yelloweye rockfish that was based on a precautionary adjustment of 50 percent of the specified ABC.

On January 11, 2002, yelloweye rockfish was declared overfished (67 FR 1555). At the Council's June 2002 meeting, an initial yelloweye rockfish rebuilding analysis, based on the 2001 assessment, was prepared and presented. The development of rebuilding measures for yelloweye rockfish was hampered in this process because this assessment did not cover waters off the coast of Washington. In August 2002, an updated assessment was completed in order to incorporate data from Washington, an important area of yelloweye rockfish abundance, and to incorporate newly available age data.

The assessment update concluded that the coastwide yelloweye rockfish spawning female biomass was at 24.1 percent of its unfished biomass at the beginning of 2002. This is in contrast to the 2001 assessment that estimated that yelloweye rockfish was at about 7 percent of its unfished biomass in waters off northern California and at 13 percent of its unfished biomass in waters off Oregon. A new rebuilding analysis was prepared following completion of the 2002 assessment. Due to the less depleted stock status and higher productivity estimated by the updated assessment, the rebuilding period is shorter than had been initially estimated. The estimated year to rebuild