

harvest rate, complies with the requirements of the Magnuson-Stevens Act, and is consistent with the National Standard Guidelines and FMP requirements. On a case-by-case basis, additional precaution may be added as may be warranted by uncertainty in the data or by a stock's higher risk of being overfished. A stock that falls below 25 percent of its unfished biomass (B25%) is considered overfished under the FMP. Once a stock is declared overfished, the Magnuson-Stevens Act requires the Council to develop a rebuilding plan within 1 year from the public announcement in the **Federal Register** that the stock has been declared overfished. Rebuilding plans for overfished species generally have stock-specific allowable harvest rates based on a rebuilding analysis and rebuilding strategy, although those rates may still be consistent with this 40–10 default OY policy and may not exceed Fmsy.

2003 ABCs and OYs

The species that had ABCs and OYs in 2002 continue to have ABCs and OYs in 2003. Changes that have been made since 2002 that affect the ABCs and OYs for 2003 include: (1) the completion of new assessments for canary, bocaccio, and yelloweye rockfish; (2) the preparation of an assessment update for sablefish; (3) the preparation of a yelloweye rockfish rebuilding analysis; (4) revision of the widow rockfish rebuilding analysis; (5) changes in the catch distribution of canary rockfish between commercial and recreational fisheries; (6) the preparation of a sustainability analysis for bocaccio rockfish; (7) the projection of the 2002 Pacific whiting model forward one year; and (8) the subdivision of the minor nearshore rockfish south OY into shallow nearshore rockfish, California scorpion fish, and deeper nearshore rockfish. Discussions of the development of ABCs and OYs for species with changed specifications from 2002 are contained in this section. Summaries of draft rebuilding plans for overfished species are provided in the next section, "Determination of Overfished Stocks and Rebuilding Plans."

Canary rockfish

NMFS prepared an assessment update for canary rockfish, based on an age-structure stock synthesis model. Unlike the previous assessment in 2000, the 2002 assessment model included the entire coast and blended the alternative mortality/selectivity scenarios into one scenario that linked increasing female natural mortality to maturity while allowing selectivity (the ability of the

gear to catch certain sizes or types of fish) of females to be domed shaped. In this context, "domed shaped" means that the model places greater emphasis on female mortality at intermediate ages, rather than equally across all possible ages of mortality. This was done to address uncertainty regarding the reasons for the lower occurrence of old females versus old males. Although the model provides a more complete evaluation, the availability and mortality of older females in the survey and fishery data continues to be a source of uncertainty with the assessment. The 2002 assessment extends back to 1940 to provide a better evaluation of the unfished biomass level, and estimates the degree of compensation in the spawner-recruitment relationship to provide an improved basis for forecasting future recruitments during rebuilding.

The new assessment estimates that the canary rockfish biomass was at 8 percent of its unfished biomass coastwide at the beginning of 2002. As with the 2000 assessment, canary rockfish shows a decline throughout the assessment time period with most of the decline occurring from 1975 to 1995.

The Council considered four OYs based on different rebuilding parameters—constant fishing mortality rates that would have 80-percent, 60-percent and 50-percent probabilities of rebuilding the canary rockfish to Bmsy by the year 2076 (T_{max} is the maximum allowable time to rebuild as defined in the National Standard Guidelines, 50 CFR subpart D). The fourth option had a 50-percent probability of rebuilding the canary rockfish to B40% by the year 2067 (T_{mid}). (T_{mid} is halfway between T_{max} and T_{min} —the minimum time to rebuild in the absence of fishing as defined in the National Standard Guidelines, 50 CFR Subpart D). In addition, four different arrangements for dividing catch between the commercial and recreational fisheries were considered. The OY levels ranged from 20 mt to 57 mt. In general, the recreational fisheries take smaller canary rockfish than the commercial fisheries, resulting in a greater per ton impact on the canary stock over the rebuilding period. The catch sharing arrangements considered by the Council included: 20 percent recreational/80 percent commercial, 39 percent recreational/61 percent commercial, 50 percent recreational/50 percent commercial, and 80-percent recreation/20 percent commercial. The Council recommended adopting an ABC of 272 mt and an OY of 44 mt based on a 60-percent probability of rebuilding the canary rockfish to Bmsy by the year

2076 (T_{max}) with a 39-percent recreation/61-percent commercial catch sharing arrangement. Canary rockfish is taken in a wide variety of fisheries coastwide, co-occurring with many different groundfish stocks. The catch sharing arrangement for canary rockfish was needed to ensure that canary rockfish taken in the different fisheries would be appropriately accounted for.

Bocaccio Rockfish

A new stock assessment was prepared for bocaccio rockfish in the Conception and Monterey areas, the statistical areas where the bocaccio rockfish stock is overfished. This new assessment uses a length-based stock synthesis model similar to that used for the 1999 assessment, but differs from the previous assessment in that it (1) includes new information from a larger area of southern California; (2) moves the beginning of the assessment time period back 18 years; (3) updates estimates of commercial and recreational landings data; (4) uses a "jackknife" statistical method to estimate precision of abundance indexes rather than using assumed values of precision, which is a useful procedure when the data dispersion or distribution are wide or extreme; (5) omits triennial survey data from hauls where the trawl gear did not actually fish on the ocean floor (so-called "water hauls"); (6) adds an index of larval abundance reflecting spawning biomass; (7) adds a recreational "catch per unit effort" (CPUE) index for 1980–2001; and (8) includes a new recruitment index based on the impingement rate of juvenile bocaccio rockfish in saltwater intakes at southern California electric power plants between 1972–2000.

The new bocaccio rockfish assessment is consistent with the finding in previous assessments that there has been a declining biomass trend since 1969. The new assessment estimates that the bocaccio rockfish spawning stock biomass in the Monterey and Conception areas is at about 3.6 percent of its unfished biomass. The estimated biomass for 2002 (age 2+ fish) is 2,914 mt. The ABC for bocaccio rockfish, which is based on the new assessment with an Fmsy proxy of F50%, is 198 mt.

Bocaccio was declared overfished in 1999. Since 2000, the bocaccio OY has been set to be a constant harvest level of 100 mt. This level was based on the 1999 rebuilding analysis and was estimated to have a 67 percent probability of rebuilding the stock to Bmsy by 2033. The new assessment in 2002 found that the rate of rebuilding would probably be lower than projected from the 1999 assessment and that the