

HARVEST RATE POLICY

Situation: Current Council policy for allowable fishing intensity on groundfish stocks includes, for some stocks, the use of a generalized harvest rate. When certain biological information about a stock is inadequate, this *default* harvest rate is used with the purpose of constraining catch to maintain a sustainable fishery. The Scientific and Statistical Committee (SSC), concerned the default harvest rate may be in error, has analyzed relevant information, and will present preliminary findings to the Council.

These three points provide background about the Council's default harvest rate:

- (1) An estimate of the fishing mortality rate associated with maximum sustainable yield (MSY) is an important element of all fishery management plans (FMP). To accurately determine the MSY of a stock, we need to know how many fish are in the population and how many are needed to replenish the stock and maintain it at a healthy, sustainable level. MSY refers to the largest long-term average catch that a population of fish can support.
- (2) The FMP specifies that, in general, a fixed fraction of the exploitable stock may be harvested each year by applying a constant fishing mortality rate (i.e., *rate of harvest* by fishing). This rate of harvest is designated as F . The F value that results in MSY is termed F_{MSY} . The $_{MSY}$ subscript is termed as a percentage that represents the percentage of the virgin (unfished) stock reproductive potential that remains after fishing. For example, a harvest rate of $F_{35\%}$ represents a fishing mortality that would maintain the stock at a level that produces 35% of the reproductive potential if there was no fishing. In general, the larger the % subscript of F , the lower the harvest rate, that is, a fishing rate of $F_{35\%}$ catches a larger percentage of the stock than a fishing rate of $F_{90\%}$.
- (3) Information to directly estimate MSY is usually not available. The FMP acknowledges this lack of information and specifies that a standard harvest rate (or "proxy" value) will be used as the default rate when MSY is not known. The current Council default harvest rates for West Coast groundfish are $F_{40\%}$ for *Sebastes* species and $F_{35\%}$ for other groundfish. However, recent scientific studies suggest that these rates may overestimate the true productivity and F_{MSY} for these species.

In 1999, the SSC initiated plans for convening a groundfish harvest policy workshop to review the Council's default harvest rate. In November 1999, the Council adopted the SSC's terms of reference for the workshop. The workshop was held in Seattle, Washington the week of March 20, 2000. The objectives of the workshop were to review past research on proxies for F_{MSY} , determine their appropriateness with respect to West Coast groundfish stocks, and recommend changes to existing default harvest rates if needed.

Dr. Steve Ralston (workshop chair) will present a **draft** report on the results of the workshop and will provide preliminary SSC recommendations to the Council. The final report will be available at the June 2000 meeting and will incorporate all SSC comments received at the April meeting. Final action on any recommended changes to the harvest rate policy should be scheduled for the June 2000 meeting to allow adequate time for stock assessment authors and the Groundfish Management Team to incorporate any revised default harvest rate into the 2001 specification process.

Council Action:

- 1. Provide direction to the SSC for reviewing and completing the workshop report, including recommended changes to the Council's default harvest rate.**

Reference Materials:

1. DRAFT Report of the West Coast Groundfish Harvest Rate Policy Review Workshop (Supplemental Attachment B.3.).

PFMC
03/20/00