

GROUND FISH MANAGEMENT TEAM REPORT ON OFF-YEAR SCIENCE IMPROVEMENTS

The Groundfish Management Team (GMT) reviewed and discussed the materials under this agenda item and received additional information from Mr. John DeVore (Council staff), during a joint discussion with the Scientific and Statistical Committee (SSC). The GMT recognizes the efforts to improve the accuracy and reliability of stock assessments as one of the most important tasks that can be done.

With consideration of workload implications and likelihood of completion, the GMT suggests the Council consider limiting the number of off-year science priorities to those that are likely to be completed and provide the greatest benefit in the near term. Some of the items were recommended by the GMT in September 2015 ([Agenda Item H.10.a, Supplemental GMT Report](#)) and are still outstanding, while others are newly added and are listed below for consideration.

The GMT recommends the following items (not in any specific order):

- Recreational Fisheries Data and Catch per Unit Effort (CPUE)
Time series of historical landings are a key element for stock assessments, and have been a limiting factor to assess some West Coast stocks. There are also several issues pertaining to recreational indices of abundance that have yet to be addressed (e.g., aggregation of Oregon Marine Recreational Fisheries Statistics Survey interview to the trip level, standardized approaches for Stephens-McCall filtering thresholds, or the application or development of other filters). The GMT recommends that the states continue to work to resolve any outstanding recreational fishery data issues.
- Natural Mortality
Natural mortality (M) is one of the key productivity influences in the stock assessment process, but it continues to be a parameter that has a high level of uncertainty for many species. Some assessments incorporate an increase in natural mortality for post-maturity females (e.g., canary rockfish in 2015), and the selection of the natural mortality parameter may determine the difference between overfished or rebuilt classification of the stock. Investigation of gender and age-specific natural mortality, and the influence on the stock assessment process, continues to be a high priority for the GMT.
- Transboundary Stocks
The GMT understands there has been some progress made in accessing data from Canada and Mexico. We support the continued efforts of incorporating additional data for transboundary stocks into our assessment process. The GMT believes that stocks such as sablefish, yelloweye rockfish, Pacific ocean perch, cowcod, and yellowtail rockfish may be good initial candidates.
- The Triennial Survey
The triennial trawl survey data continues to have issues when trying to incorporate it into the stock assessment processes. Each assessment author

currently considers how or even if to incorporate this survey data on an individual basis. The GMT believes that a comprehensive review is needed in order to increase its ability to be more useful and consistent within the stock assessment processes. The GMT recommends that a workgroup be formed prior to the next stock assessment cycle, which is tasked with resolving the issues with the triennial survey.

- **Incorporation of Non-Extractive Survey Data**

It may be useful to develop visual/non-extractive surveys that utilize a standardized methodology for areas not readily accessible by the traditional trawl survey (e.g. nearshore habitats) or could benefit from non-extractive survey techniques (e.g. Cowcod Conservation Areas).

The GMT recommends that the Council consider the following off-year science improvements (not in priority order):

- A. Standardization of recreational fisheries data and CPUE to better align with stock assessment needs.**
- B. Investigation of gender and age specific natural mortality to better inform stock assessment processes.**
- C. Inclusion of data for transboundary stocks.**
- D. Formation of a workgroup and comprehensive review of the triennial trawl survey to overcome issues with inclusion of the survey within stock assessments.**
- E. Development of standard visual/non-extractive survey protocols to incorporate additional methods of data collection for stock assessments.**

PFMC
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