

**SUMMARY MINUTES**  
**Scientific and Statistical Committee**

Pacific Fishery Management Council  
DoubleTree Guest Suites  
Monterey II Room  
16500 Southcenter Parkway  
Seattle, WA 98188  
(206) 575-8220  
September 8 - 9, 2003

**Call to Order**

The meeting was called to order at 8 a.m. Dr. Donald McIsaac briefed the Scientific and Statistical Committee (SSC) on priority agenda items.

**Members in Attendance**

Mr. Alan Byrne, Idaho Department of Fish and Game, Nampa, ID  
Mr. Robert Conrad, Northwest Indian Fisheries Commission, Olympia, WA  
Dr. Ramon Conser, National Marine Fisheries Service, La Jolla, CA  
Dr. Michael Dalton, California State University, Monterey Bay, CA  
Dr. Martin Dorn, National Marine Fisheries Service, Seattle, WA  
Dr. Robert Francis, University of Washington, Seattle, WA  
Dr. Han-Lin Lai, National Marine Fisheries Service, Seattle, WA  
Mr. Tom Jagielo, Washington Department of Fish and Wildlife, Olympia, WA  
Dr. Peter Lawson, National Marine Fisheries Service, Newport, OR  
Dr. Stephen Ralston, National Marine Fisheries Service, Santa Cruz, CA  
Dr. André Punt, University of Washington, Seattle, WA  
Ms. Cynthia Thomson, National Marine Fisheries Service, Santa Cruz, CA

**Members Absent**

Dr. Kevin Hill, California Department of Fish and Game, La Jolla, CA  
Dr. Shijie Zhou, Oregon Department of Fish and Wildlife, Portland, OR

**Scientific and Statistical Committee Comments to the Council**

The following is a compilation of SSC reports to the Council. Text in *italics* is from SSC discussions that were not included in reports to the Council.

## ***B. Council Administrative Matters***

### **B.3. Council Input into NOAA Fisheries Constituent Survey**

The SSC identified three broad areas that we consider important to the quality and effectiveness of West Coast fishery management in the near future.

#### Capacity Reduction

Capacity reduction is the highest priority for the West Coast groundfish fishery. If an aggressive groundfish capacity reduction program is implemented, many of the problems facing the West Coast groundfish fishery could be reduced or eliminated. The fishing industry has taken the initiative on this issue, but considerable support from the Council and NOAA Fisheries is needed to make this successful. Additional measures, such as permit stacking and fishing quota programs, may be necessary for long-term effective management of capacity.

#### Data Collection

Given the intensity of current management and the high economic and social stakes of fishery closures, it is important to have high quality and consistent long-term data sets. Stock assessments, species rebuilding plans, bycatch estimates, and economic assessments all have specific data requirements. To address these needs, the SSC encourages NOAA Fisheries to conduct and expand fisheries sampling and fishery-independent data collection. This applies to all species that are managed by the Council including groundfish, coastal pelagic species, salmon, and highly migratory species. The need for independent sampling is especially important for monitoring rebuilding of stocks that have severely restricted fisheries.

#### Marine Reserves

Marine reserves are an important and contentious issue. There are differences and potential conflicts in the objectives of the Magnuson-Stevens Act and National Marine Sanctuary Act. Lines of authority and responsibility among NOAA Fisheries, the Council, and the National Marine Sanctuary Program are not clear. Clarification of each agency's role is needed to facilitate communication and coordination.

## ***C. Groundfish Management***

### **C.2. Observer Data Implementation Status**

The SSC received a presentation on this agenda item by Drs. Elizabeth Clarke and James Hastie. A number of changes have been made to the bycatch modeling effort since the June 2003 Council meeting. However, those changes have yet to be documented and so cannot be reviewed. Documentation will be completed prior to the November 2003 Council meeting.

The SSC had a long discussion with Dr. Hastie about issues involving incorporation of the model fueled by observer data into both multi-year and inseason management decisions. The SSC has the following recommendations:

- The Council should manage to total catch rather than landed catch targets. Trip limits for achieving the two objectives could be quite different.
- The trawl bycatch model in its current form is the preferred basis for inseason management.
- When all the data for a given year have become available, the cumulative affects of inseason adjustment should be evaluated to determine how close actual harvests were to the targets.

The SSC would like to point out that, due to the current short observer time series, the calculation of 2003 total catch using the bycatch model uses observer discard rates from September 2001 to August 2002 applied to fishtickets from calendar year 2003.

### C.3. Final Harvest Levels for 2004

The SSC provided detailed comments on 2004 harvest levels at the June Council meeting. SSC recommendations concerning the range of 2004 harvest levels are unchanged (see B.4. of SSC minutes for the June Council meeting). Council staff correctly note that for darkblotched rockfish the medium and high optimum yield (OY) alternatives are higher than the acceptable biological catch (ABC), which is based on the  $F_{MSY}$  proxy for rockfish of  $F_{50\%}$ . Since the Magnuson-Stevens Act does not allow harvest rates greater than  $F_{MSY}$ , the ABC constrains the harvest level for these alternatives. The medium and high OY alternatives use assessment estimates of relatively strong (but uncertain) recruitment in 2000 (medium OY alternative), or both 2000 and 2001 (high OY alternative). Strong recruitment in those years imply harvest rates could be higher than  $F_{MSY}$ , and the stock would still rebuild by  $T_{MAX}$  with 80% probability. If subsequent assessments confirm the estimates of strong recruitment in 2000 and 2001,  $F_{MSY}$  may continue to constrain harvest levels as the stock rebuilds.

### C.5. Final Criteria for Exempted Fishing Permits (EFPs) and Consideration

The SSC considers the protocol for Council consideration of EFPs (see Attachment 2 of Exhibit C.5.b) proposed by the Groundfish Management Team (GMT) to be appropriate. However, there is a need to clarify the time line under the multi-year management cycle.

The SSC discussed the EFP application: “Application for Issuance of an Exempted Fishing Permit for the Sport Harvest of Rockfish from Partyboats in Waters Deeper than 20 Fathoms off the Central Coast to Duplicate the Sampling Program Conducted by the CDFG from 1988-1998.” This EFP proposal is based on the old bag limit regulation, which is different from the currently implemented limit. It is important for the applicant to address the implications of changing regulations on the estimation of an abundance index.

This EFP may provide useful time series of abundance indices for many species because data will be collected by observers. As seen in black rockfish and bocaccio stock assessments, inclusion of spatio-temporal interactions in the statistical modeling of commercial passenger fishing vessel (CPFV) series led to important improvements in the stock assessments of these species. There is no other data source that generates information at this level of spatial

resolution. This EFP can also serve as a means to obtain catch per unit effort (CPUE) and biological data from the closed area.

The methodology to be used to analyze the future data and the analyses of the 1988-1998 data are not presented. The proposed sample size, 44 trips per year, is around 20% to 25% of annual sample size during 1988-1998. The implications of the proposed annual sample size could be evaluated by estimating all coefficients of variation (CVs) by species from the earlier data. The SSC suggests the applicant consider whether to use this EFP as a pilot study to establish a reasonable CV level that is attainable under current regulations. The extension of the study to other ports would allow evaluation of port-year-region interactions.

#### C.8. Stock Assessment of Canary Rockfish

The most recent stock assessment of canary rockfish was conducted during 2002. Given the change to multi-year management and the current schedule for stock assessments, this assessment will be the most recent until the next assessment of canary rockfish is presented to the Council in November 2005. The 2002 assessment will form the scientific basis on which management arrangements for the 2005-2006 fishing season will be based. Moreover, conducting an assessment of canary rockfish in 2003-2004 would lead to the situation in which the results of an assessment are not available by the first of three meetings (November 2003) envisaged under the multi-year management process.

There are several potential new sources of data, so any new assessment of canary rockfish would necessarily be a "full" assessment, and hence, require a review by a Stock Assessment Review (STAR) Panel. However, both the data from the Delta submersible and from the changed NOAA Fisheries West Coast trawl survey could not be incorporated easily into a new assessment. This is because the information from the Delta submersible is only for a single year, and the methodology for including the data from the shelf component of NOAA Fisheries survey in the assessment has yet to be developed. In addition, the survey index for this survey will only become available in January 2004, constraining the time any potential assessment author has to conduct an assessment for canary rockfish.

The SSC concluded that accelerating the timing of the canary stock assessment will, therefore, be both resource and time consuming, possibly detrimental to the multi-year management process, and unlikely to provide a better assessment.

#### C.9. Groundfish Programmatic Bycatch Environmental Impact Statement

Mr. Jim Glock presented a progress report on the Bycatch Program Environmental Impact Statement (EIS) (Exhibit C.9, Attachment 1). This initial draft is fairly complete with respect to the first three chapters (Purpose and Need; Alternatives; and Affected Environment). However, the fourth chapter (Impacts of the Alternatives), which will embody all of the analysis, will not be completed until the November 2003 Council meeting. The planned timeline for the EIS then includes: Council release for public review (November 2003); NEPA review (January through April 2004); and Council selection of the preferred alternative (April 2004).

The SSC discussion focused primarily on the (1) definition of bycatch and (2) aspects of the analyses that should be included in Chapter 4 of the next draft.

## 1. Definition of Bycatch

The current draft first defines groundfish as those species covered by the Council's groundfish fishery management plan (FMP) and discards as those animals that do not survive after being returned to the sea. Bycatch is then defined as the combination of groundfish discards and nongroundfish species caught during the course of a fishing operation. The SSC notes that this definition differs from that used in the Magnuson Act (discards only) and is more closely aligned with the definition of bycatch used in *Managing the Nation's Bycatch* (NOAA Fisheries 1998) – the latter being the basis for the guidelines on implementation of National Standard 9.

While the bycatch definition in the current draft is workable, the SSC recommends that when completing the analysis of alternatives (Chapter 4), the components of bycatch under this definition be further delineated. Namely:

- A. Regulation-induced discards, (e.g., catch that exceeds a trip limit, undersized fish, etc.).
- B. Non-regulation-induced discards, (e.g., no or little economic value, recreational releases that do not survive, etc.).
- C. The retained part of bycatch that is managed by a something other than the groundfish FMP, (e.g., Pacific halibut, California halibut, etc.).
- D. The retained part of bycatch that is not managed.
- E. Take of protected species.

## 2. Analysis of Alternatives

For the most part, the alternatives identified in the draft EIS attempt to minimize only component A of the bycatch, as defined above. In order to meet the National Standard 9 guidelines, however, it will be necessary to minimize component B as well. In addition, the Council may also find it necessary to gauge the impact of each alternative on components C, D, and E, separately.

The various alternatives require greatly differing levels of observer coverage for proper implementation. The level of observer coverage and associated costs should be clearly identified for each alternative.

Logbook and other reporting requirements, as well as levels of enforcement also differ among the alternatives. The respective costs and practicalities under each of the alternatives should be included in the next draft.

For the various alternatives, it is likely that substantial differing levels of bycatch will result, as well as substantially differing implementation costs. Consequently, the selection of a preferred alternative may not be straightforward.

The SSC recognizes the analyses that will appear in Chapter 4 are likely to be qualitative, and this is customary for a programmatic EIS. However, it should be recognized that at some future time, it will become necessary to develop a fully-fledged quantitative model for such analyses.

The trawl bycatch model may provide a convenient starting point for such model development.

## ***E. Marine Reserves***

### **E.1. Update on Marine Reserves Issues**

The SSC discussed the proposed West Coast Marine Protected Area (MPA) Demonstration Project and the proposal titled “Integration of marine protected areas and fishery science management.” These proposals both address important aspects of marine reserve management and, to a large degree, complement each other.

The integration proposal would bring together many of the major parties (National Ocean Service MPA Science Center, NMFS–Southwest Fisheries Science Center (SWFSC), Pacific Fishery Management Council, National Center for Ecological Analysis and Synthesis) involved in design, evaluation, and implementation of marine reserves for the West Coast to integrate traditional fishery stock dynamics and management with the science of marine reserves. In the past, a lack of communication and common terminology have hindered progress in coordinating marine reserve plans. Getting the appropriate parties together to develop a scientific basis for reserves in marine management would be a major step forward.

The SSC encourages the Council to participate in the integration proposal. The stock assessment and fisheries expertise possessed by the Council family would contribute significantly to the integration project. Council participation would also help direct the products of the integration project toward management applications useful to the Council.

The demonstration project would have the goal of integrating MPA considerations in groundfish fishery management specifications. Like the integration proposal, it would involve a coordinated interagency effort, but would be directed to implementation. Furthermore, the integration proposal fits in well with the types of products specified in the demonstration project.

One of the objectives of the demonstration project is “full coordination of MPA considerations in the 2005-2006 Annual Groundfish Fishery Specifications.” Given the complexity of marine reserve issues and the developmental nature of the science it may be difficult to meet this time frame. However, significant progress in that direction could be achieved.

Marine reserve issues will demand an increasing share of the Council’s time in the next several years. Communication among the various parties involved and participation in the two proposed projects will be central to successful development of fishery regulations in marine reserves. This would require substantial commitment of staff time to this process, especially if rapid progress is expected. This could require reallocation of staff priorities. In addition, Council and advisory body meeting time will be needed.

The SSC discussed their draft white paper. It will be ready for the November 2003 Council meeting.

## ***F. Salmon Management***

## F.2. Salmon Methodology Review: Final Prioritization of Modeling Issues for SSC

At the April 2003 meeting, the SSC identified six methodology issues for possible review during the November 2003 meeting. These were the:

- Chinook and coho Fishery Regulation Assessment Model (FRAM) documentation.
- Chinook FRAM for mark-selective fisheries.
- Coho FRAM fisheries for Canadian stocks.
- Columbia River Fall chinook ocean abundance predictors.
- Oregon Department of Fish and Wildlife management plan for Lower Columbia River coho salmon.
- Oregon Coastal Natural (OCN) coho salmon prediction methodology.

The Coho FRAM fisheries for Canadian stocks is the only model with new material to review. The Model Evaluation Workgroup will have a draft of the Chinook and Coho FRAM overview documentation for review. The SSC Salmon Subcommittee will review these two products in October and present its results to the full SSC at the November 2003 meeting.

## ***G. Pacific Halibut Management***

### G.2. Status of Pacific Halibut Bycatch Estimates for Use by the International Pacific Halibut Commission

The SSC heard a presentation from Mr. John Wallace concerning the 2002 estimate of Pacific halibut bycatch in groundfish trawl fisheries in the International Pacific Halibut Catch Area 2A (Exhibit G.2, Situation Summary, September 2003). For the first time, the estimate of halibut bycatch is based on bycatch rates obtained from the groundfish observer program (data from September 2001 – August 2002). Previously Area 2A Pacific halibut bycatch in the groundfish fishery was calculated using information from the Enhanced Data Collection Program (EDCP).

The new analysis indicates a substantial drop in Pacific halibut bycatch mortality in Council-managed fisheries. Results show a 36% reduction in the total estimated bycatch mortality from 2001 to 2002 (796,000 pounds to 512,000 pounds). This drop is due to the combined effects of (1) generally lower observed halibut bycatch rates in the observer data in comparison with the EDCP data, and (2) a drop in trawling effort and/or a change in its spatial distribution.

The SSC reviewed these new results and endorses their use in estimating the impacts of Council-managed fisheries on the Pacific halibut stock.

## **Other Matters**

### *Assessments*

*Dr. Elizabeth Clarke presented a draft list of the species for which stock assessments are to be completed by November 2005. The list divided the species into three tiers based on priority and also into those for which “full” assessments are to be conducted and those for which “expedited” assessments are to be conducted. The SSC considered the implications of conducting up to 26 assessments annually for the STAR process. The SSC strongly supports the continuation of the STAR process. However, there is clearly a need to identify means for increasing the efficiency of the STAR process. Issues that need to be considered include the need for:*

- continuity of membership of STAR panels (e.g., by including the SSC members from past STAR panels on new STAR panels);*
- workshops to review the methods for analyzing raw data (e.g., CPUE information) and model structures to avoid repeatably reviewing the same material; and*
- a broader definition of what constitutes an “update” assessment.*

*There is a need for the SSC to work with the Northwest Fisheries Science Center to plan any workshops to be held in 2004. These workshops should address methodological issues common to several stock assessments. Examples for possible workshops include: methods to derive indices of abundance from recreational catch-effort data (in particular the approach developed by Dr. Alec MacCall for bocaccio rockfish), developing spatially-explicit models for stock assessment, dealing with conflicting indices of abundance, and how to use the data from NWFS West Coast surveys to augment the data collected during the Alaska Fisheries Science Center shelf surveys.*

### *SSC Composition*

*At the September 2003 meeting, the Council added a second SWFSC seat to the SSC. The current composition of the SSC is as follows:*

*Committee members shall be appointed for each category listed below (16 members). The committee shall consist of three social scientists, of which at least two shall have economic expertise.*

#### *1. State fishery management agencies (4)*

- Washington Department of Fish and Wildlife*
- Oregon Department of Fish and Wildlife*
- California Department of Fish and Game*
- Idaho Department of Fish and Game*

2. *National Marine Fisheries Service (5)*

- *Alaska Fisheries Science Center (1)*
- *Northwest Fisheries Science Center (2—one with expertise in groundfish stock assessment)*
- *Southwest Fisheries Science Center (2)*

3. *Indian agency with fishery management responsibility (1)*

4. *At-large positions (6)*

**Public Comment**

No public comments on topics not on the SSC agenda were provided.

**Adjournment**

The SSC adjourned at approximately 5 p.m., Tuesday, September 9, 2003.

PFMC  
10/22/03

### SSC Subcommittee Assignments for 2003

<b>Salmon</b>	<b>Groundfish</b>	<b>CPS</b>	<b>HMS</b>	<b>Economic</b>	<b>Marine Reserves</b>
Alan Byrne	Ray Conser	Michael Dalton	Alan Byrne	<b>Michael Dalton</b>	Ray Conser
Robert Conrad	Michael Dalton	Alan Byrne	Robert Conrad	Martin Dorn	Michael Dalton
Kevin Hill	Martin Dorn	Ray Conser	Ray Conser	Han-Lin Lai	Martin Dorn
<b>Pete Lawson</b>	Robert Francis	<b>Robert Francis</b>	<b>Kevin Hill</b>	Cynthia Thomson	Tom Jagielo
Shijie Zhou	Tom Jagielo	Tom Jagielo	André Punt		Pete Lawson
	Han-Lin Lai	André Punt	Cynthia Thomson		André Punt
	André Punt	Shijie Zhou			Steve Ralston
	<b>Steve Ralston</b>				<b>Cynthia Thomson</b>

**Bold** denotes Subcommittee Chairperson

