

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

Pacific Fishery Management Council  
Hyatt Regency Islandia  
Garden F  
1441 Quivira Road  
San Diego, CA 92109  
619-224-1234  
September 13-14, 2004

**Call to Order**

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

Subcommittee assignments for 2004 are detailed in the table at the end of this document.

**Members in Attendance**

Mr. Tom Barnes, California Department on Fish and Game, La Jolla, CA  
Mr. Steve Berkeley, University of California, Santa Cruz, CA  
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. Kevin Hill, National Marine Fisheries Service, La Jolla, CA  
Mr. Tom Jagielo, Washington Department of Fish and Wildlife, Olympia, WA  
Dr. Han-Lin Lai, National Marine Fisheries Service, Seattle, WA  
Dr. Peter Lawson, National Marine Fisheries Service, Newport, OR  
Dr. André Punt, University of Washington, Seattle, WA  
Dr. Hans Radtke, Yachats, OR  
Dr. Stephen Ralston, National Marine Fisheries Service, Santa Cruz, CA  
Dr. David Sampson, Oregon State University, Newport, OR  
Ms. Cynthia Thomson, National Marine Fisheries Service, Santa Cruz, CA

## Scientific and Statistical Committee Comments to the Council

The following is a compilation of September 2004 SSC reports to the Council.

### *Council Administrative Matters*

#### B.2. National Marine Fisheries Service (NMFS) Revision of National Standard 1

The SSC received the “Report of the NMFS Standard 1 Guidelines Working Group” by Dr. Richard Methot. In general, the SSC is encouraged that the revised language to National Standard 1 guidelines responds to several concerns with the current language, such as:

- the 10-year rebuilding discontinuity has been removed;
- the term “overfished” has been replaced by “depleted” and the term Minimum Stock Size Threshold (MSST) has been replaced with  $B_{lim}$ ;
- the specification of  $B_{lim}$  has been simplified; and
- it is now possible to apply Status Determination Criteria to assemblages, as well as individual stocks.

The SSC will work with Council staff to provide specific comments through the chair of the SSC within the next two weeks. Some areas of continuing concern include:

- the problem of defining “prevailing” environmental conditions when establishing biomass targets and limits;
- exceptions to the requirement that  $B_{lim}$  be determined, especially in situations where data are adequate to do so;
- classification of stocks as either “core” stocks or into stock “assemblages;”
- lack of clarity in the guidelines for determining progress towards rebuilding depleted stocks; and
- the extent to which the guidelines apply to short-lived species, such as salmon and squid.

*Following the September meeting, Dr. Steve Ralston and Dr. Kevin Hill coordinated with the SSC and Council staff in generating SSC comments and recommendations for inclusion in a letter from the Council to NMFS about the proposed revisions (October 1, 2004 letter from McIsaac to Hogarth).*

#### B.3. Update of Council Operating Procedures

The SSC discussed the Draft Council Operating Procedures (COP). COP 1 - page 6 and COP 4 - page 2 include sections pertaining to the SSC’s suggested requirement for good documentation and timely receipt of materials. The SSC strongly endorses inclusion of these sections in the COP.

The SSC recommends the following editorial changes to the document:

1. COP 4 - page 4, “Officers” section: change “The Council Chair and Vice Chair of the SSC...” to “The SSC Chair and Vice Chair...”.

2. COP 4 - page 4, "Subcommittees" section: delete the second sentence, as the SSC's ability to establish subcommittees such as Economics and Marine Reserves is already established under the first sentence.
3. COP 4 - page 4, "Subcommittees" section: add a sentence stating: "Subcommittee reports will not be considered final until approved by the full SSC."
4. COP 4 - page 5: change wording of the second and third sentences as follows: "Draft work products, reports, or statements prepared and discussed at these meetings will be available in final form after submission to the Council. Distribution prior to submission to the Council will be limited to SSC members unless authorized by the Chair."

### ***Salmon Management***

#### D.2. Salmon Methodology Review

At the April 2004 meeting, the SSC identified eight methodology issues for possible review during the November 2004 meeting. These were:

1. Chinook and coho Fishery Regulation Assessment Model (FRAM) technical documentation.
2. Chinook FRAM for mark-selective fisheries: A limited mark-selective fishery for chinook was conducted in Washington Marine Catch Areas 5 and 6 in 2003. The results from this fishery, in comparison to chinook FRAM predictions, may allow a limited empirical evaluation of the chinook FRAM for mark-selective fisheries.
3. Chinook Rebuilding Exploitation Rate Analysis.
4. Coho FRAM fisheries for Canadian stocks.
5. Oregon Department of Fish and Wildlife Oregon coastal natural (OCN) matrix.
6. Oregon Department of Fish and Wildlife management plan for Lower Columbia River coho salmon.
7. Columbia River Fall chinook ocean abundance predictors.
8. OCN coho salmon prediction methodology.

A report documenting the results for the limited mark-selective fishery for chinook conducted in Washington Marine Catch Areas 5 and 6 in 2003 is the only new material currently available for SSC review. The SSC plans to review this report at the November 2004 meeting.

### ***Groundfish Management***

#### C.1. California Recreational Fishery Survey (CRFS) Program Review

Mr. Russell Porter briefed the SSC about updates to the California Recreational Fisheries Survey (CRFS), which was implemented in January 2004, replacing the Marine Recreational Fishery Statistics Survey (MRFSS) in California. The CRFS was designed to address data needs that the MRFSS was unable to provide for recreational fisheries management in California. CRFS samples all sport fisheries and is intended to provide monthly catch and effort estimates with only a one-month time lag. The Recreational Fishery Information Network (RecFIN) statistical subcommittee currently reviews the methodologies used in CRFS from a statistical sampling

point of view. However, the SSC suggests that a separate review may be needed for methods to project inseason catch.

Collection of discard information is not standardized among the three West Coast states. Currently, California categorizes discards into a dead or alive category, whereas Oregon and Washington combine all discards into a single category. The SSC recommends that each state assign discards into either an alive or dead category, as this will allow a more accurate assignment if hooking/handling mortality rates to the “alive” portion of the discards.

During 2004, NMFS employed a household phone survey in California using MRFSS. Mr. Porter stated that this effort was expected to continue for two or three years, so a comparison of the effort and catch statistics generated from CRFS and MRFSS can be made. The SSC recommends continuation of the telephone survey so that CRFS and MRFSS datasets can be compared to ensure the historical recreational data from MRFSS can be used with the new CRFS data.

#### C.7. Off-Year Science Improvements Report

Dr. Elizabeth Clarke (NMFS Northwest Fisheries Science Center) gave an oral report on science improvement activities organized and/or sponsored by the Northwest Fisheries Science Center, which so far this year have included the Recreational Catch Per Unit Effort (CPUE) Workshop held in June 2004 and the Groundfish Stock Assessment Data Workshop held in July 2004. The Scientific and Statistical Committee (SSC) anticipates receiving at the November Council meeting a final report on the Recreational CPUE Workshop and a draft report of the Groundfish Data Workshop.

The third and final science improvement activity planned for 2004 is a Stock Assessment Modeling Workshop, which will occur during the last week of October 2004. The SSC worked with Dr. Clarke to revise the draft agenda for the Modeling Workshop. The revised agenda includes the following topics: Terms of Reference for stock assessment teams, methods for developing biomass indices from surveys, review of methods for model tuning, evaluation of model diagnostics, and methods for making catch and biomass projections and expressing uncertainty.

It is unlikely a written report about the Modeling Workshop will be available for the November 2004 Council meeting. The Council and its advisory committees may wish to formally review the off-year science activities at some future meeting and provide guidance concerning the process for planning such activities in the future.

#### C.8. Terms of Reference for Groundfish Rebuilding Plan Review and STAR Panels

The SSC discussed the Terms of Reference for stock assessment review (STAR) panels and groundfish rebuilding plan review. The SSC recognizes that 2005 will clearly be an exceptional year, due to the much higher workload than usual, due to the implementation of the new biennial (multi-year) stock assessment and management process. Thus, some of the historical terms of reference may be impracticable; in particular, those that concern the number of stock assessment reviewers and the thoroughness of the stock assessment reviews. The SSC recommends the Terms of Reference be revisited after completion of the first multi-year management cycle.

Regarding the STAR panel process, the SSC suggested that: (1) for reasons of continuity and efficiency, it may be useful if the SSC representatives on STAR panels would also typically serve as STAR panel chairs, (2) SSC representatives on STAR panels should continue to convey STAR panel findings to the Council, but should attend the post-STAR panel meeting only if requested.

Regarding the Terms of Reference for groundfish rebuilding plan review, the SSC recognizes the Council has been requested by the National Marine Fisheries Service to establish a process to monitor and respond to rebuilding progress. The SSC will work with the Council to develop a set of guidelines and tools to evaluate rebuilding status. Such guidelines should be in place by April 2005, so they could be used for the 2005 stock assessment cycle.

### ***Marine Protected Areas***

#### **E.1. Guidelines for Review of Marine Reserves Issues**

The SSC reviewed and discussed the September 2004 revision to the draft white paper *Marine Reserves: Objectives, Rationales, Fishery Management Implications and Regulatory Requirements*, prepared by the SSC Marine Reserves Subcommittee. The current version has been modified to address concerns and comments from advisory bodies and the public. Changes include:

- clarification of the difference between state and federal regulatory requirements and the scope of Council responsibility,
- elimination of the appearance of a dual standard in both science and regulatory requirements,
- expanded discussion of social objectives,
- clarification of the ecosystem objective to include habitat protection,
- inclusion of reference sites as a valid category of research reserves,
- inclusion of Appendix A, examples from the Council's Environmental Impact Statement for the 2003 groundfish specifications that illustrate appropriate approaches to conducting regulatory analysis, and
- a more balanced literature review.

The process for Council consideration of marine reserves is evolving as needs arise. The white paper would most appropriately be adopted as Terms of Reference to guide the Council and SSC in evaluating marine reserve issues.

The SSC endorses the current version, with minor edits, and recommends that the Council adopt the current draft document. The white paper should be considered a living document that may be modified over time as additional issues become apparent to the SSC in the course of reviewing marine reserve proposals, or as significant new research becomes available on marine reserves.

### ***Pacific Halibut Management***

#### **F.3. Review of Pacific Halibut Bycatch Estimates for Use by the International Pacific Halibut Commission**

The SSC heard a presentation from Dr. Jim Hastie concerning the 2003 estimate of Pacific halibut bycatch in groundfish trawl fisheries in the International Pacific Halibut Catch Area 2A (Exhibit F.3.a., Agendum Overview, September 2004). The estimate of halibut bycatch is based on an update of the model used to estimate 2002 bycatch. Observed bycatch and associated mortality from the Oregon exempted fishing permit (EFP) fishery were incorporated as a census, and bycatch from other trawl fisheries were estimated using the model. Halibut bycatch rates from the West Coast Groundfish Observer Program during September 2002 through August 2003 were stratified by season, depth, latitude and amount of arrowtooth catch, and then multiplied by the amount of effort by stratum from the trawl logbooks. Boundaries for depth strata were changed compared to previous analyses to match the Rockfish Conservation Area boundaries that were in place during 2003.

In Council-managed fisheries, the total Pacific halibut bycatch in bottom trawl fisheries dropped by 9.8% compared to 2002. When the data become available, the SSC suggests that the Council consider exploring the use of observer data to estimate halibut bycatch in other Council-managed fisheries. Also, the SSC requested that future analyses include variance estimates for total bycatch.

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

### ***Highly Migratory Species Management***

#### **H.2. FMP Amendment for Limited Entry in the High Seas Longline Fishery**

Dr. Jim Carretta (NMFS Southwest Fisheries Science Center) briefed the SSC on an updated analysis of projected sea turtle takes and mortalities from the California-based high seas longline fishery for swordfish. This analysis differs from Dr. Carretta's earlier work (presented to the SSC in June 2003), in that, it posits changes in fishing methods that may reduce takes and mortalities of Endangered Species Act-listed sea turtles. Specifically, the updated analysis assumes that: (1) circle hooks will be used in place of J-hooks; and (2) mackerel (rather than squid) will be used to bait the hooks. Both of these factors have been shown to reduce substantially the sea turtle takes and mortalities in swordfish longline fisheries in the Atlantic Ocean.

While the revised analysis appears to be reasonable, the SSC received no documentation and was, thus, unable to formally review the work. However, the SSC offers the following considerations for future work.

- The applicability of the results from the Atlantic to the California-based swordfish fishery should be examined. In particular, there may be differences in the size composition of loggerheads taken in the Atlantic- and California-based fisheries that should be considered. For example, there is some indication that smaller sea turtles (i.e., less likely to be hooked in the mouth) interact with the Atlantic-based fishery.
- The Monte-Carlo simulation approach may be improved by the use of non-parametric distributions for some of the input parameters.

### H.3. Stock Assessments for Albacore and Blue Fin Tuna

Dr. Gary Sakagawa, NMFS Southwest Fisheries Science Center, presented an overview to the SSC of the results of the stock assessments for North Pacific albacore and Pacific bluefin tuna. These stock assessments were conducted by an international body of scientists convened by the Interim Scientific Committee on Tuna and Tuna-like Fishes in the North Pacific (ISC), which is consistent with the intent of National Standard 1 guidelines relative to international fisheries and the Highly Migratory Species Fishery Management Plan. The SSC notes that its role will be limited to receiving these reports, unless an SSC representative actively participates in assessments as a member of the U.S. scientific delegation to the ISC. The SSC notes that this level of participation will require a substantial commitment of time and resources on the part of the Council and SSC.

#### *Coastal Pelagic Species Management*

Dr. André Punt presented the coastal pelagic species (CPS) stock assessment review (STAR) Panel reports for Pacific sardine and Pacific mackerel to the SSC. The SSC endorses the STAR Panel reports and the Panel's recommendations. The Stock Assessment Teams (STAT) are commended for excellent presentations, reports, and willingness to conduct additional model runs and other work completed during the STAR process.

The STAR Panel reviewed new assessment methodologies and recommended the most appropriate framework for conducting future assessments. The Panel did not focus on results of individual assessments or the harvest control rules currently in place. New assessments will be presented to the Council for sardine in November 2004 and for mackerel in June 2005. The STAR Panel reports provide recommendations about use of the new assessment methodologies for management of the 2005 sardine fishery and 2005-2006 Pacific mackerel fishery. The reports also discuss research and data needs of the CPS fisheries.

The new assessment model for sardine, ASAP (age-structured-assessment-program), offers a more straightforward treatment of multiple fleets and areas than the model used for past assessments, CANSAR-TAM (catch-at-age-analysis for sardine-two-area model). The STAR Panel recommended use of ASAP in the next sardine assessment. The ASAP model was also used for mackerel, and compared to the ADEPT model. The STAR Panel also recommended use of the ASAP model for the next mackerel assessment, but also recommended using ADEPT for sensitivity analysis.

In general, stock structure and mixing are not well understood for both species. The STAR Panel recommended, and the SSC supports, continuing with the working hypothesis of a single Pacific sardine stock extending from Mexico to British Columbia.

### ***Other Matters***

*Mr. John Hyde (NMFS) presented information to the SSC about potential difficulties in accurately distinguishing vermillion rockfish from other species, and implications for the vermillion assessment scheduled for 2005. From the information presented, the SSC could not conclude that a vermillion rockfish assessment was unwarranted. At the time, the SSC discussed the need to review an analysis of RecFIN data using the approach described by Stephens and MacCall. This information will be presented to the SSC at the November meeting, and provide a basis for recommendations to the Council.*

### **Public Comment**

None.

**Adjournment** – The SSC adjourned at approximately 5 p.m., Tuesday, September 14, 2004.

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## SSC Subcommittee Assignments for 2004

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

**Bold** denotes Subcommittee Chairperson