

MINUTES
Scientific and Statistical Committee

Pacific Fishery Management Council
Sheraton Seattle Hotel
Redwood A and B
1400 Sixth Avenue
Seattle, WA 98101
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April 1, 2012

Call to Order and Scientific and Statistical Committee (SSC) Administrative Matters

The meeting was called to order at 8 a.m. on Sunday, April 1, 2012. Council Executive Director, Dr. Donald McIsaac briefed the SSC on priority agenda items. Dr. McIsaac and the SSC took the opportunity to welcome returning member and former SSC chair Dr. Daniel Huppert.

Members in Attendance

Dr. Louis Botsford, University of California, Davis, CA
Dr. Ramon Conser, National Marine Fisheries Service, La Jolla, CA
Mr. Robert Conrad, Northwest Indian Fisheries Commission, Olympia, WA
Dr. Martin Dorn, National Marine Fisheries Service, Seattle, WA
Dr. Vladlena Gertseva, National Marine Fisheries Service, Seattle, WA
Dr. Owen Hamel, SSC Chair, National Marine Fisheries Service, Seattle, WA
Dr. Selina Heppell, Oregon State University, Corvallis, OR
Dr. Daniel Huppert, University of Washington, Seattle, WA
Ms. Meisha Key, SSC Vice-Chair, California Department of Fish and Game, Santa Cruz, CA
Dr. Peter Lawson, National Marine Fisheries Service, Newport, OR
Dr. Todd Lee, National Marine Fisheries Service, Seattle, WA
Dr. Charles Petrosky, Idaho Department of Fish and Game, Boise, ID
Dr. André Punt, University of Washington, Seattle, WA
Dr. David Sampson, Oregon Department of Fish and Wildlife, Newport, OR
Ms. Cindy Thomson, National Marine Fisheries Service, Santa Cruz, CA
Dr. Tien-Shui Tsou, Washington Department of Fish and Wildlife, Olympia, WA

Members Absent

Dr. Carlos Garza, National Marine Fisheries Service, Santa Cruz, CA

SSC Recusals for this Meeting.		
SSC Member	Issue	Reason
None		
SSC members of External Review Panels for items considered at this meeting.		
<i>SSC members of external review panels are noted below for the record. SSC members of External Review Panels may participate in SSC deliberations, but they are expected to remain neutral if the SSC is being asked to arbitrate differences between review panels and technical teams.</i>		
SSC Member	External Panel Membership	
None		

Scientific and Statistical Committee Comments to the Council

The following is a compilation of April 2012 SSC reports to the Pacific Fishery Management Council (Council) in the order they were discussed by the SSC. (Related SSC discussion not included in written comment to the Council is provided in *italicized text*).

Groundfish Management

I Methodology Reviews: COAST Acoustic Survey for Rockfish, Oregon Recreational Groundfish Model, and IO-PAC Model Presentation

The SSC was briefed on outcomes of the two review meetings, including a review of the COAST Acoustic Survey Methodology and a review of the ODFW Oregon Recreational Groundfish Model. The latter is part of the SSC Economic subcommittee's effort to review socioeconomic models used within the Council's harvest specification process.

Dr. Martin Dorn, who chaired the COAST Acoustic Survey Methodology review meeting, reported that review panel found the methods proposed for the COAST acoustic survey were not sufficiently developed, and further work was recommended before those methods were implemented. The main concern was whether optical sampling represents true species and size compositions of the entire school detected acoustically. The report summarizing details of the review meeting is currently being developed; this report will be available for the SSC review later this year.

Dr. David Sampson briefed the SSC on the Economic and Groundfish Subcommittees review of the Oregon Recreational Groundfish Model. At the review meeting, several models involved in calculating fishing mortality (landings plus discard mortality) were discussed, including models for (1) estimating landings and discard mortality, (2) projecting landings and discard mortality in the recreational fishery for non-halibut groundfish, (3) projecting landings and discard mortality in the recreational fishery for halibut, and (4) projecting the resulting fishing mortality from changes to bag limits. Most of these models are used internally by ODFW to inform preseason and inseason management decisions, but some of them also produce inputs for the IO-PAC model. There was also an exploration of models that used multiple independent variables (e.g., fuel prices, weather conditions, and landings in other recreational fisheries) to predict harvest impacts for

yelloweye rockfish, a major constraining species.

The Economic and Groundfish Subcommittees concluded the models (1), (2) and (3) provide a sound basis for management, but recommended further work on the underlying theory of model (4) and its application, because simple extrapolations from existing data are not likely to provide reliable projections of the effects of bag limit changes. Specific comments on each model were provided to ODFW.

At the review meeting, questions regarding the use of the reviewed models within the Council's harvest specification process arose. These questions included:

- What information (e.g., raw data, estimates of impacts and effort, or projected impacts for different scenarios) do the state agencies provide to the IO-PAC model? What is the process used for moving the states' data into IO-PAC?*
- How does RecFIN estimate the recreational fishery landings of groundfish for each of the states? Are RecFIN estimates of impacts and effort different from the data that underlie the IO-PAC projections? The Subcommittees heard that ODFW staff had been unable to exactly reproduce the discard mortality that RecFIN had estimated for Oregon.*
- How do methods used by the GMT for pre-season projections differ from the methods used for projections in the IO-PAC model?*

These questions prompted the need to discuss general flow of recreational and commercial fishery data used in the socioeconomic analyses within the Council's harvest specification process. Dr. Todd Lee, whose group in NWFSC runs the IO-PAC model, identified Ed Waters as the point contact for the IO-PAC fishery input data. The SSC agreed that it would be beneficial to meet with Ed Waters at the September Council meeting, if possible, to discuss and document data flow and people involved in generating and analyzing fishery data used in IO-PAC.

Coastal Pelagic Species (CPS) Management

G.2 Exempted Fishing Permits for 2012 Northwest Aerial Sardine Survey

The Scientific and Statistical Committee (SSC) discussed the West Coast Aerial Sardine Survey Exempted Fishing Permit (EFP) application for 2012 (Agenda Item G.2.a Attachment 1). Mr. Mike Okoniewski of the Northwest Sardine Survey (NWSS) was available to answer questions regarding the EFP. The SSC reviewed an earlier draft of the EFP application in March 2012. SSC discussion at the current meeting focused on the EFP modifications made since March.

The EFP would continue research conducted in 2009, 2010, and 2011 (and a non-EFP pilot project in 2008). The proposed survey follows essentially the same methodology as in previous years. The key changes in this year's EFP proposal included: (i) an increase in the proposed allocation from 2,700 mt to 3,000 mt, and (ii) an increase in the number of point sets from 76 to 82. This increase has been requested to allow a stratified sampling scheme that provides point set sampling over a broader area than in 2011, stretching further northward. Additional vessels and a fourth plane will be added to allow for (i) the additional point sets and (ii) exploratory sampling of the inshore strata. The revised EFP addresses the primary concerns expressed in the SSC's March 2012 statement.

All of the previous aerial surveys observed the point sets from an altitude of 4,000 feet. The 2012 survey will include some point sets observed at lower altitudes. While this change is likely to increase the number of successful point sets, re-calibration will be needed to combine these school size estimates with those done from the standard altitude (4,000 feet). The EFP recognizes the need for this work and the NWSS Scientific Team is planning to conduct such an analysis.

The SSC notes that the non-EFP pilot project was reviewed by a STAR Panel and the SSC in 2009. Those reviews of the aerial survey were generally positive, based on the results from the pilot year, and the SSC recommended going forward with EFPs in the subsequent years. The 2009 review also recommended a series of analyses and re-evaluation of issues that could only be addressed once a sufficient number of years of data had been collected: evaluate if estimators should be data pooled over years, or continue to be year-specific; conduct "double reads" of estimates of surface area of schools from the point sets; calculate measurement error from these double reads; evaluate tradeoffs between the number of transects vs. the number of point sets; etc. Upon completion of the 2012 field season and sardine assessment, it would be advisable to carry out this work and have it reviewed by a Council Methodology Review Panel.

Although there have been implementation issues and cost-based limitations, there is a sufficiently strong scientific basis for the EFP proposal. The continuation of the time series and an additional year of data should contribute to the upcoming and future sardine stock assessments. The SSC endorses the EFP proposal for implementation in 2012.

SSC Notes:

The equation on page 7 of the EFP should be corrected to define the slope at $a_i=0$ as $(x - y)/z$.

Salmon Management

E.4 Methodology Review Process and Preliminary Topic Selection for 2012

The Scientific and Statistical Committee (SSC) met with the Salmon Technical Team (STT), the Model Evaluation Workgroup (MEW), and Mr. Chuck Tracy (Council staff) to discuss possible salmon methodology review topics for 2012. The following items were identified for potential SSC review this fall. The lead entity for each topic is identified at the end of the item.

- Implementation and assessment of proposed bias-correction methods for mark-selective fisheries into the Coho Fishery Regulation Assessment Model (FRAM). (MEW)
- Review of modifications to Chinook FRAM size limit algorithms implemented to allow evaluation of changes to size-limits. (MEW)
- Review of alternative forecast methodologies for the Sacramento Fall Chinook index. (STT)
- A multi-year review and evaluation of preseason forecasts and postseason estimates for mark-selective coho fisheries both north and south of Cape Falcon. (STT)
- Preliminary assessment of the feasibility of abundance-based management for California Coastal Chinook. (NMFS SWFSC)
- A user's manual for the Visual Studio version of FRAM. (MEW)

- Investigate Chinook FRAM's sensitivity to age composition forecasts. (MEW)
- Evaluate the feasibility of incorporating bias-correction methods for mark-selective fisheries into Chinook FRAM. (MEW)

The SSC considers items 1 through 3 in this list to be most important for consideration relative to the 2013 salmon management process. The remaining items can be reviewed if they are available.

The SSC requires proper documentation and ample review time to make efficient use of the SSC Salmon Subcommittee's time. Materials for review should be submitted at least two weeks prior to the scheduled review meeting. Agencies should be responsible for ensuring that materials submitted to the SSC are technically sound, comprehensive, clearly documented, and identified by author.

Groundfish Management, continued

I.4 Trawl Rationalization Trailing Actions and Allocation Amendments

A study is being developed to evaluate the feasibility of using video monitoring methods as a way to substitute for at-sea observers, due to the high costs of providing at-sea observers. Because no document describing the study design was presented to the Scientific and Statistical Committee (SSC), the SSC cannot comment on the specific details of the design. The results of any study conducted during summer 2012 should be viewed as a pilot project rather than as providing definitive proof of the feasibility of video monitoring as a substitute for at-sea observers.

The SSC offers the following design considerations:

- Results derived from a study of volunteer fishing vessels may not reflect the results that would be experienced with fishing vessels that were randomly chosen.
- Using a video monitoring system to verify that catches were fully retained is a much simpler problem to investigate than using a video monitoring system to identify the species and weights (or lengths) of fish that are discarded, which are the main data provided by the current at-sea observation system.
- Because there are likely to be large vessel-to-vessel differences in operating characteristics, the study will need to use a reasonably large number of vessels to provide an adequate representation of the complete fleet and rare events.
- The presence of an observer may affect the behavior of a vessel's captain and crew. The presence of video monitoring equipment may affect the behavior of both the vessel and the observer. The experimental design and data interpretations should take these possible interactions into consideration.
- In addition to collecting information to verify the accuracy of the video monitoring approach, the study should provide a detailed accounting of the costs of operating and maintaining the equipment and reviewing the video recordings for evidence of violations. This would provide a basis for a cost-benefit analysis of different systems. Also, information should be collected on the time required to process the video data for use in management and enforcement.

- The study should include some trips having at-sea observers with simultaneous video monitoring and deliberate discarding events to measure the ability of both the observer and video to detect the discarding events.
- In analyzing the study data, discarding events recorded on video should be matched with corresponding observer events rather than evaluating the data only at the trip level.

SSC Notes:

The issue of changes in observer costs is only an issue for current quota share holders as the cost changes will be reflected in future quota share prices.

Groundfish Management, continued

I.6 Groundfish Essential Fish Habitat Review

Mr. Kerry Griffin reported on the Essential Fish Habitat Review Committee (EFHRC) recommendations for issues relevant to the ongoing essential fish habitat (EFH) review including schedule changes, request for proposals (RFPs), and potential needs for recusal.

The original EFHRC schedule was considered ambitious and has been modified with a six-month delay. The EFHRC's Phase I report that summarizes new information available for EFH review and compares it to information used in the past will be issued in August 2012. Upon the completion of the Phase I report, the Council will issue an RFP to solicit proposals to modify Pacific coast groundfish EFH.

The draft RFP requires that proposals include a socioeconomic analysis. The Scientific and Statistical Committee (SSC) recommends that a standardized map showing the distribution of effort and revenue be made available so that all proposers have a common information base for the socioeconomic analysis.

Unlike other Council advisory bodies, the EFHRC has the dual role of providing both technical expertise and stakeholder representation. Given this hybrid role, decision making processes used by other Council entities (whether stakeholder advisory groups or the SSC) are not necessarily a good model for decision making by the EFHRC. The SSC recommends that the EFHRC develop its own procedures to ensure impartial review of EFH proposals.

Groundfish Management, continued

I.3 Tentative Adoption of 2013-2014 Biennial Specifications and Management Measures

The Scientific and Statistical Committee (SSC) provided its overfishing limit (OFL) and acceptable biological catch (ABC) recommendations to the Council for groundfish for the years 2013-2014 at previous Council meeting as shown in Table 1 of Agenda Item I.3.a, Attachment 2. Table 1 includes a minor change in the previously recommended ABCs for 2013 and 2014 for lingcod north of 40°10' N Latitude. The SSC regards the OFL and ABC values provided to the

Council at the March meeting to be the most appropriate values for use in management and does not endorse the changes reflected in Table 1. Given the OFL values and P* values adopted by the Council, the ABC for 2013 and 2014 for lingcod north of 40°10' N Latitude would be 3,036 mt and 2,878 mt respectively.

Two new issues were brought to the attention of the SSC. The first issue concerns the OFL contribution values for stocks managed in complexes. The SSC has recommended that the OFLs for stock complexes be set equal to the sum of the OFL contribution values for the stocks in the complex for which these values are available. The SSC did not set OFL contribution values for stocks lacking a scientific basis for setting an OFL contribution value. Tables showing OFL contribution values in stock complexes should clearly distinguish these missing values as having no scientifically-based estimation methods.

NMFS guidance for implementing National Standard 1 recommends that stock complexes consist of stocks with similar vulnerability and susceptibility to reduce the likelihood that disproportionate harvest occurs on any component stock. However, no two stocks are exactly alike, and in establishing stock complexes there will always be tradeoffs between management practicality and concerns about individual species. The SSC has previously recommended that the current system of stock complexes be evaluated and noted, in particular, its concern about the stocks grouped in the Other Fish Complex.

Since OFLs are set for stock complexes, rather than for individual stocks within a complex, the SSC recommends against using OFL contribution values to evaluate whether overfishing is occurring for component stocks. The SSC recommends that for species with OFL contribution values, a comparison of recent catches with those values be used to identify whether stock complexes are working as they were intended. If catches regularly exceed OFL contribution values, this could indicate a problem with how the stock complexes are structured, and justify action in the next management cycle which could include removing the species concerned from the complex and prioritizing it for a full assessment.

The second issue identified is the 10 percent rollover provisions for quota pounds. In the event annual catch limits are inadvertently exceeded, the SSC does not view relatively modest inter-annual departures from annual ACLs as cause for concern from a biological perspective. Once the TIQ system stabilizes, rollovers to the following year may act to balance rollovers from the previous year. Ensuring that OFLs are not exceeded is an adequate additional constraint to ensure that the annual departures from ACL do not have biological impacts.

Adjournment: The SSC adjourned at approximately 5:00 p.m., Sunday, April 1, 2012.

SSC Subcommittee Assignments, April 2012

Salmon	Groundfish	Coastal Pelagic Species	Highly Migratory Species	Economic	Ecosystem-Based Management
Robert Conrad	Vlada Gertseva	André Punt	Ray Conser	Cindy Thomson	Loo Botsford
Loo Botsford	Loo Botsford	Ray Conser	Robert Conrad	Vlada Gertseva	Ray Conser
Carlos Garza	Ray Conser	Carlos Garza	Selina Heppell	Dan Huppert	Martin Dorn
Owen Hamel	Martin Dorn	Owen Hamel	André Punt	Todd Lee	Vlada Gertseva
Meisha Key	Owen Hamel	Selina Heppell		André Punt	Selina Heppell
Pete Lawson	André Punt	Dan Huppert		David Sampson	Pete Lawson
Charlie Petrosky	David Sampson	Meisha Key			Todd Lee
	Tien-Shui Tsou				André Punt
					Cindy Thomson
					Tien-Shui Tsou

Bold denotes Subcommittee Chairperson

DRAFT Tentative Council and SSC Meeting Dates for 2012

Council Meeting Dates	Location	Likely SSC Mtg Dates	Major Topics
March 2-7, 2012 Advisory Bodies may begin Thu, March 1 Council Session begins Fri, March 2	<u>DoubleTree Hotel Sacramento</u> 2001 Point West Way Sacramento, CA 95815 Phone: 916-929-8855	Two Day Session Thurs, March 1 – Fri, March 2	GF Stocks for 2013 Assessments Salmon Review/Pre I
April 1-6, 2012 Advisory Bodies may begin Sat, Mar 31 Council Session begins Sun, Apr 1	<u>Sheraton Seattle Hotel</u> 1400 Sixth Avenue Seattle, WA 98101 Phone: 206-447-5534	One Day Session Sun, April 1	Groundfish EFH Salmon Meth. Rev. Topics Final CPS EFP
June 21-26, 2012 Advisory Bodies may begin Wed, June 20 Council Session begins Thurs, June 21	<u>San Mateo Marriott</u> 1770 South Amphlett Boulevard San Mateo, CA 94402 Phone: 650-653-6000	Two Day SSC Session Wed, June 20 – Thurs, June 21	P. Mackerel OFL Final 2013 GF Stock Assess. Fishery Ecosystem Plan
September 13-18, 2012 Advisory Bodies may begin Wed, Sept 12 Council Session begins Thurs, Sept 13	<u>Doubletree Hotel Boise-Riverside</u> 2900 Chinden Blvd Boise, ID 83714 Phone: 208-343-1871	Two Day SSC Session Wed, Sept 12 – Thurs, Sept 13	Salmon Meth. Rev Topic Select Halibut bycatch in GF
November 2-7, 2012 Advisory Bodies may begin Thurs, Nov 1 Council Session begins Fri, Nov 2	<u>Hilton Orange County/Costa Mesa</u> 3050 Bristol Street Costa Mesa, CA 92626 Phone: 714-540-7000	Two Day SSC Session Thurs, Nov 1 – Fri, Nov 2	Salmon Methodology Rev Pacific Sardine Assess. Fishery Ecosystem Plan

SSC Meeting Dates and Durations are tentative and are subject to change in response to Council meeting dates and agendas, workload, etc.

Proposed Workshops and SSC Subcommittee Meetings for 2012

Tentative – Depended on funding, dates subject to change

☐- Prep. Work Underway, Scheduled to Occur; ◐- Status of Supporting Analyses Uncertain, Remains a Priority;

▨- Setbacks exist, Questionable; ■- Funding or Prep. Not Avail, likely to be canceled or postponed

	Workshop/Meeting	Potential Dates	Sponsor/ Tentative Location	SSC Reps.	Additional Reviewers	AB Reps.	Council Staff
1	Groundfish/CPS Assessment Process Review (Post Mortem)	COMPLETED Dec. 2011	NWFSC Teleconference/Webinar	2011 STAR Panel Participants.	2011 CIE participation		DeVore Burner
2	Acoustic ROV survey for Rockfishes	COMPLETED Feb. 15-17	SWFSC La Jolla	Dorn, Punt	3 CIE		
3	Groundfish Impact and Economic Model Reviews	Held the day after 2012 SSC sessions	Council Various	GF/Econ Subctes & GMT	None	GMT Reps	Burner, Dahl
4	Clarification on the Conservation Performance of Rebuilding Plans	April 2 SSC Subcommittee/GMT Meeting	Council Seattle	GF/Econ Subctes & GMT reps.	None	GMT Reps	Burner, DeVore, Dahl, Ames
5	CPS Methodology Review –Canadian Survey Data	May 29-31	Council La Jolla	Chair: Punt Conser	CIE: TBD	CPSAS CPSMT	Griffin
6	Data Poor Species Assessment	June 26-29	NWFSC Seattle	Dorn, Punt, Conser	CIE: TBD	GMT GAP	DeVore
7	Pacific Sardine Updated Assess. Review	First Week of Oct	Council Portland	CPS Subcte. Hamel	CPS Subcte.	CPSMT	Griffin
8	Salmon Methodology Review	Early-October	Council Portland	Salmon Subcte.	None	STT MEW	Tracy

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	Workshop/Meeting	Potential Dates	Sponsor/ Tentative Location	SSC Reps.	Additional Reviewers	AB Reps.	Council Staff
9	Integrated Ecosystem Assessment – Annual Report and App. to Stock Assessments	Fall 2012	NWFSC/ SWFSC TBD	EBM Subcte.	?	EPDT EAS	Burner
10	Harvest Parameters for Pacific Sardine	Fall – Combine with Sardine Update Rev.?	Council La Jolla?	2-3 TBD	CIE: TBD	CPSMT CPSAS	Griffin Burner
11	Reference Points (Bzero) Workshop II	Summer/Fall	Council Portland	GF Subcte?	CIE/External 1-3:	GMT GAP	DeVore
12	Groundfish Historic Catch Reconstructions	NMFS Rpt. at Council Mtgs – Poss. Workshop in late 2012	Council Meetings - Wrkshp	2-3 TBD	None	GMT GAP	DeVore
13	Assessing Socioeconomic Impacts in Ecosystem-Based Fisheries Management	?	NWFSC Seattle?	Econ and EBM Subctes.?	?	EPDT IEA	Burner
14	Transboundary Groundfish Stocks	Initial Steps in 2012	Council	2?		GMT GAP	DeVore