MINUTES
Scientific and Statistical Committee

Pacific Fishery Management Council
Hilton Vancouver Hotel
Heritage E Room
301 W. 6th St.
Vancouver, WA 98660
360-993-4500

April 4-5, 2014

Members in Attendance

Dr. Andrew Cooper, Simon Fraser University, Vancouver, B.C.
Dr. Martin Dorn, National Marine Fisheries Service, Seattle, WA
Dr. Owen Hamel, National Marine Fisheries Service, Seattle, WA
Dr. Daniel Huppert, University of Washington, Seattle, WA
Mr. Tom Jagielo, Seattle, WA
Dr. Galen Johnson, Northwest Indian Fisheries Commission, Olympia, WA
Ms. Meisha Key, SSC Chair, California Department of Fish and Wildlife, 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
Dr. William Satterthwaite, SSC Vice-Chair, National Marine Fisheries Service, Santa Cruz, CA
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. Vladlena Gertseva, National Marine Fisheries Service, Seattle, WA

SSC Recusals for the April 2014 Meeting		
SSC Member	**Issue**	**Reason**
Dr. Todd Lee	F.3 Methodology Review Preliminary Topic Selection for 2014	Dr. Lee contributed to the IO-PAC analysis
Dr. Todd Lee	C.4 - Biennial Specifications for Fisheries in 2015-2016 and Beyond	Dr. Lee contributed to the net revenue projections

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

Chair Meisha Key called the meeting to order. Dr. McIsaac addressed the SSC and reviewed the agenda to identify SSC tasks.

C. Groundfish Management

6. Fixed Gear Sablefish Catch Share Program Review

Mr. Jim Seger briefed the Scientific and Statistical Committee (SSC) regarding the draft review document for the limited entry fixed gear (LEFG) sablefish permit stacking program (Agenda Item C.6, Attachment 1). The SSC recommends the following be included in the document, if time allows:

1. Include vessel length distribution by Tier and number of permits to show the composition of the LEFG sablefish fleets.
2. Include results from a safety study conducted by the Northwest Fisheries Science Center (NWFSC) to address to what extent the LEFG sablefish program promoted safety.
3. As a contrast to Figure 3-4 of the draft review document, include an additional figure showing the percent utilization by individual vessels. This new figure would indicate the number of vessels that exceeded their individual allocations, while Figure 3-4 shows the percent utilization of the overall allocation to the vessels in the LEFG sector.
4. Figures 3-9 and 3-10 show the percent revenue dependence on LEFG sablefish landings by port group. This reflects the percent of the landed value of fish that is LEFG sablefish but ports differ in the extent to which their local economies depend on fish landings. It would be informative to include additional figures that show LEFG sablefish revenue dependence relative to a broader measure of economic activities.
5. Information on regional economic impacts and net-revenue associated with the fishery would provide important information about economic contributions and returns from the fishery. These analyses would enhance the economic content of the report, and are available through work at the NWFSC.

For future research, the SSC makes the following recommendations:

1. Routine collection of permit sale prices to indicate the market value of the fishery.
2. Collect information about crew, captains and owners of vessels. Information about the county of residence, and participation in the fishery is necessary to understand the regional economic impacts of the fishery (for models such as IO-PAC), and to estimate the number of people who directly work in the fishery. This information will also assist in an evaluation of the community effect of the owner-on-board requirement.

4. Biennial Specifications for Fisheries in 2015-2016 and Beyond

Hotspot analysis

Ms. Rosemary Kosaka (Groundfish Management Team, GMT) briefed the Scientific and Statistical Committee (SSC) on a preliminary analysis of spatial patterns of rougheye bycatch in the Pacific whiting fishery. The GMT is considering whether this type of analysis could be used to establish spatial closures as an in-season tool to manage bycatch. Spatial management is just one of the potential tools that could be used for this purpose. The data are based on observer sampling, and the SSC noted some concerns regarding the use of observer data, including how discard that occurs before the net is brought on board is identified to species, and whether sub-

sampling of the catch leads to highly variable estimates of tow-by-tow bycatch. The SSC considers this approach to be worth further development as a management tool, and made a number of recommendations on how to improve the analysis.

Mr. Dave Fraser gave a presentation on the spatial analysis tools that are being used by the Pacific whiting mothership fleet to manage bycatch. The focus is on easy-to-interpret spatial displays with color-coding to indicate spatial cells with high bycatch. The spatial displays use real-time high-resolution data from on-board observers and vessel monitoring systems. High resolution tow-by-tow data is confidential, but the mothership fleet has waived the confidentiality restrictions to make these data available to SeaState. The SSC encourages a discussion of the tradeoffs between self-management of bycatch by risk-pools and the more formal regulatory approaches being considered by the GMT. In addition, spatial closures may be more effective for controlling bycatch for some species than others, depending on how consistently the species is distributed spatially and seasonally.

Review proposed 2015-2016 OFLs

The SSC recommends the 2015 and 2016 overfishing limits (OFLs) for Washington cabezon (Table 3 of Supplemental Revised Attachment 2) and the 2016 OFLs for brown, China, and copper rockfish (Table 1 of Supplemental Revised Attachment 2). The SSC also recommends the revised green-spotted rockfish OFLs for 2015 and 2016 that were obtained by assuming that catch for 2013 and 2014 (and 2015 for the 2016 OFL) will be equal to the recent average rather than assuming the full annual catch limit will be taken. The SSC endorses all the other OFLs in Table 1 of Agenda Item C.4.a, Supplemental REVISED Attachment 2, with the exception of the following.

For kelp greenling OFLs in Oregon and Washington, the approach that was recommended by the SSC groundfish subcommittee in December was to condition both the Oregon and Washington DB-SRA analysis on the depletion estimates from the 2005 kelp greenling stock assessment for Oregon. At this meeting, the SSC discovered that the best current estimates of kelp greenling historical catches in Oregon are very different than the catches that were used in the 2005 assessment. This raises a major concern about reliability of the 2005 assessment. The SSC concluded that it could no longer support the OFLs for kelp greenling in Oregon and Washington that were obtained from DB-SRA analyses conditioned on the 2005 assessment.

The SSC discussed two options for Council consideration for moving forward. One option would be to request that Dr. E.J. Dick conduct new DB-SRA analyses for kelp greenling in Oregon and Washington that are not conditioned on the 2005 assessment, and to provide those results to the SSC at the June meeting for review and to set OFLs. This option would not take advantage of the information available on stock trends and age composition in Oregon, and is likely to give results that are similar to the OFL values that were previously endorsed. The second option, which would not cause further delay in the specifications process, is for the SSC to not make any further attempts to specify new kelp greenling OFLs, and for the Council to continue to manage these stocks under a stock complex for 2015-2016. Kelp greenling would be given high priority for full assessment in the next assessment cycle.

Review Atlantis model results

An analysis using the Atlantis model for the California current ecosystem is being considered for inclusion in the Tier 1 Groundfish Environmental Impact Statement. Dr. Isaac Kaplan presented preliminary Atlantis results that followed SSC recommendations on how to structure the analysis using the decision tables in groundfish stock assessments. Initial results suggested that there do

not appear to be large impacts of the groundfish fishery on other components of the ecosystem across a broad range of catch levels. Results presented to the SSC indicate that a good start has been made in evaluating the cumulative impacts of the groundfish fishery using the Atlantis model. The SSC communicated a number of recommendations to the analysts. The SSC is planning to conduct a methodology review of the Atlantis model in July.

SSC Notes:

SSC recommendations on the hotspot analysis:

- *Because of the preponderance of zeroes in the data, averages should be calculated on an arithmetic scale, rather than using log-transformed values.*
- *Consider developing spatial Generalized Additive Mixed Models based on the raw data rather than cell averages.*
- *Depth is a strong correlate of rougheye rockfish bycatch, and any spatial analysis of bycatch should take this correlation into account. The isotropic statistic used in the preliminary analysis does not do this.*
- *The results of the spatial analysis can be gridded, but it is not a good idea to grid the raw data prior to analysis because it does not make complete use of the available information.*
- *It will be important to do the analysis for both the bycatch ratio (bycatch/target catch) and the catch per tow of bycatch species. For fish that are thought to be relatively immobile, such as rockfish, the catch per tow may be more informative than the bycatch ratio.*

SSC recommendations on the Atlantis model:

- *Some of the high catch streams in the decision tables are very large, perhaps exceeding the bounds of what would be considered plausible. The analysts should discuss with the GMT whether a scenario with more plausible catch streams can be developed and added to scenarios already being considered.*
- *Additional upper trophic level indicators should be presented to evaluate ecosystem effects.*
- *A more complete description is needed on how the states of nature in the stock assessments are converted to productivity scenarios in the Atlantis model as well how the initial conditions were specified.*
- *Further applications of the Atlantis model should consider whether scenarios can be developed that more realistically model how fisheries actually operate, such as the occurrence of bycatch associated with target fisheries.*

<u>SSC recommendations on socioeconomic and biological EIS analysis</u>
Kit Dahl discussed some aspects of the socioeconomics modeling approach being developed for the Tier 1 EIS. The socioeconomic analysis is structured similarly to previous harvest specifications EIS analyses, and uses sector models developed by the GMT, a landing distribution model, and the IO-PAC economic impact model. All of these model components have been already reviewed by the SSC economics subcommittee.
John DeVore presented the draft biological analysis for the Tier 1 EIS. The SSC recommends the following:

- *The probability of rebuilding by Ttarget for Pacific ocean perch and canary rockfish in Table 4.1 should refer to the probability of rebuilding for the current Ttarget, not the Ttarget that was used previously.*

- *More careful terminology is needed when making comparisons between the proposed ACL and the historical catch levels.*

F. Salmon Management

3. Methodology Review Preliminary Topic Selection for 2014

The Scientific and Statistical Committee (SSC) met with Dr. Robert Kope and Mr. Andy Rankis to discuss possible methodology review topics for 2014. The following items were identified for potential SSC review this fall. The first four items are carryover from 2013. The lead entity for each work product is identified at the end of the item.

- Conservation objectives, annual catch limits, and status determination criteria for Willapa Bay coho (STT and WDFW).
- Conservation objectives for southern Oregon coastal Chinook (ODFW).
- Standardized method to calculate Chinook age-2 FRAM stock recruit scalars (MEW).
- Progress Report: new Chinook FRAM base period (MEW).
- Escapement goal for Grays Harbor Chinook, which has already been reviewed and accepted by the Pacific Salmon Commission (WDFW, QIN).
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SSC Notes:

Mr. Jim Seger (Council staff) briefly introduced a technical issue that arose this year during the development of the EIS socioeconomic analysis supporting the Council's decision for the 2014 salmon fishery. The only supporting documentation provided to the SSC was a paper entitled "Comparison of FEAM and IO-PAC-type models for analyzing economic impacts of commercial salmon fisheries". The SSC also received slide presentations from Ed Waters (economic consultant to the Council) and Jerry Leonard (NWFSC).

The issue arises for the salmon processing sector because the IO-PAC model when applied to salmon makes different assumptions than the FEAM model about the relationship between income impacts per landed weight of salmon (the Y-variable) versus the harvester and processor contributions (the X-variables). In the IO-PAC formulation the income impacts depend on the harvesters' and processors' expenditures, which are functions of exvessel revenue. In contrast, in the FEAM formulation the income impacts depend on the harvesters' expenditures as a function of exvessel revenue and on the processors' expenditures as a function of the weight landed (not the price times the weight landed). Although the IO-PAC model was reviewed and "approved" by the SSC last year, a decision was taken to use the FEAM approach this year for developing the analyses to support the 2014 salmon harvest specifications.

Some observations:

- *There are inconsistencies in the mathematical descriptions of the two approaches as outlined in the document "Comparison of FEAM and IO-PAC-type models for analyzing economic impacts of commercial salmon fisheries". The FEAM approach is given as*

$F_s = e_s * H_s + P_s$

and the IO-PAC approach is given as

$I_s = e_s * (H_s + P_s)$

where e_s in both equations supposedly represents exvessel price per landed pound (i.e., the units are $/lb). The two equations cannot both be correct with regard to their dimensions. In the FEAM equation the quantities ($e_s * H_s$) and P_s cannot be added together unless they have the same dimensions. Similarly, in the IO-PAC equation the quantities H_s and P_s cannot be added together unless they have the same dimensions. It follows then that the variables H_s and P_s cannot represent the same quantities in both equations. If one equation is dimensionally homogeneous, then the other equation is not. Or, the variables H_s and P_s represent different quantities in the two equations.

- *It appears that the discrepancies between the two approaches are most dramatic for species or conditions (e.g., dressed versus undressed) for which there are large price differentials, which implies that the issue, highlighted for in this case for salmon, could also apply to a groundfish species such as sablefish.*
- *While this technical issue might be an appropriate topic for discussion amongst the members of the SSC Economics Subcommittee (SSC-ES), it was totally inappropriate to bring it before the entire SSC before first bringing it to the SSC-ES for review.*
- *Staff from the NWFSC economics group will consider whether data from the EDC program could resolve which approach, IO-PAC or FEAM, is most consistent with the empirical evidence. The SSC-ES will discuss and hopefully resolve this methodological dispute at a subcommittee meeting in September.*

4. Lower Columbia Natural Coho Harvest Rate Matrix Review

Mr. Mike Burner briefed the Scientific and Statistical Committee (SSC) on the process and schedule of the Lower Columbia Natural Coho Workgroup (LCN Workgroup) for development of the alternative harvest control rules for this stock.

The LCN Workgroup plans to evaluate the relative risk and opportunity of alternative harvest

strategies using the methods endorsed by the SSC at the November 2013 meeting. The SSC anticipates reviewing the results of this risk assessment at the September 2014 meeting. The SSC does not expect a further methodology review on this topic prior to 2015 management.

SSC notes:

SSC methodology review would be appropriate in the event that the LCN Workgroup determines changes are required in the coho Fishery Regulation Analysis Model (FRAM) to analyze risk of alternative control rules. At this time the FRAM structure appears adequate to assess ocean impacts.

I. Ecosystem Management

1. Protecting Unfished and Unmanaged Forage Fish Species Initiative

The Scientific and Statistical Committee (SSC) reviewed the Ecosystem Initiative 1: Protecting Unfished and Unmanaged Forage Fish Species report (Agenda Item I.1.a, Attachment 1) along with the associated Ecosystem Working Group (EWG) report (Agenda Item I.1.b). Mr. Mike Burner provided a briefing and answered questions from the SSC.

For most of the species under consideration (i.e., those listed in Section 3.2 of the report), the available data are insufficient to develop management reference points as would be required under any of the pathways designating them as fishery management unit (FMU) species. Even if such data were available, developing such guidelines for all of these species would require a very large investment of time and resources.

C. Groundfish Management, continued

Stock Assessment Prioritization

SSC Notes:

The SSC heard a presentation from Jim Hastie (NWFSC) and discussed potential candidates for 2015 stock assessments. It is anticipated that, in 2015, the system could potentially handle 1) up to eight Full Assessments, and 2) four or five Data Moderate Assessments. This could result in a total of five STAR panels in 2015.

Candidates for Full Assessments:

The expectation is that darkblotched rockfish will be rebuilt, so the stock needs to be re-assessed.

Sablefish is important to many sectors and had been going down as of 2011 assessment (Fishing down of the 1999 year class). Uncertainty about the strength of incoming year classes is high, a new assessment would be valuable.

Widow rockfish: This stock is important to industry and is ripe for a new Full Assessment, given concerns following from the 2011 assessment (e.g. Steve Ralston's concerns about steepness).

Pacific Ocean Perch: The SSC suggested POP should be a Full Assessment (not an Update). Owen says there are additional data; also, some modifications can be made to the model. There are questions about how to incorporate age data. Could also be done as a data report, in lieu of a Full Assessment.

Boccaccio: The SSC has recommended this stock for a Full Assessment. The stock is projected to be rebuilt soon. New fecundity and age data are available.

Black rockfish: Recommended for a new Full Assessment. This is an important species to both commercial and recreational fisheries.

Canary rockfish: Jim says much effort has gone into re-doing data sets this winter. A Full Assessment is recommended.

Kelp greenling: A Full Assessment is recommended, given that the catch history has been revised since the 2005 assessment. It was noted that Jason Cope is working on a kelp greenling assessment under a contract with Oregon.

China rockfish: The SSC discussed which sub-area assessments should be conducted and how; e.g. conduct a Full Assessment for the whole coast, WA/OR only, or a data poor assessment for WA only?

Lingcod: could be a candidate for a Full Assessment. Owen says the southern model could use more work.

Candidates for Update Assessments

Petrale sole is probably rebuilt by now. This stock is important to industry. The SSC discussed whether an Update Assessment might be satisfactory.

Yelloweye rockfish: Jim recommends "keeping this one on the shelf", and doing a new data report. No new information is forthcoming.

Chilipepper: This stock is a good candidate for an Update Assessment. André suggests this one could be a potential candidate for a (student project) Update Assessment.

Candidates for Data Moderate Assessments

Arrowtooth flounder, blue rockfish, scorpionfish, gopher rockfish and olive rockfish were discussed as potential candidates for Data Moderate Assessments. Additionally, the SSC discussed considering stocks where recent catches are a large proportion of the OFL. By this criterion, quillback rockfish and shortraker rockfish are potential candidates. Apparently, new data for shortraker rockfish are not forthcoming, but quillback rockfish is a reasonable candidate if a recreational index of abundance can be developed.

Other Notes:

What about cabezon in WA? Is there a recreational CPUE index?

Should longnose skate be considered for a Data Moderate Assessment (instead of a Full Assessment)?

We should talk to EJ about cowcod. He has indicated that there are some changes he would like

to make to the assessment, and is in favor of a Full Assessment.

Theresa noted that the Washington state historical catch reconstruction project (currently in progress) could result in very different catch data series from what have been used in the past. This could be a reason to plan for Full (vs. Update) assessments for species such as petrale sole and sablefish.

H. Coastal Pelagic Species Management

1. Sardine Assessment, Specifications, and Management Measures

The Scientific and Statistical Committee (SSC) reviewed the 2014 stock assessment of the northern subpopulation of Pacific sardine. Dr. Kevin Hill presented the results of the stock assessment and Dr. André Punt provided an overview of the Stock Assessment Review (STAR) panel report.

A number of changes were made to the 2014 assessment in comparison to the 2011 full assessment. These include: 1) a new sea surface temperature-based method used for assigning catch by port and month to the northern or southern subpopulations. The SSC agrees that this is an improvement over previous methods, but more research could be done to better differentiate catch of the two stocks, as outlined in the STAR panel report. A result of this approach is a reduction in estimated historical catch for the northern subpopulation. 2) The acoustic-trawl method (ATM) survey was split into spring and summer survey time series with independently estimated selectivity curves.

The 2014 assessment uses four indices of abundance: Daily Egg Production Method (DEPM) indices; Total Egg Production indices (for those years without a DEPM index); the spring ATM index; and the summer ATM index, with length composition data from the ATM surveys. Catchability for both ATM surveys are fixed at 1, as was the case for the single ATM time series in the last assessment. The northwest aerial survey indices and composition data were not included in the current assessment.

Fishery data are grouped into two fleets (PacNW and MexCal). Length data and conditional age-at-length data from both fleets are used in the model. After considerable exploration of alternative weighting schemes, fishery conditional age-at-length data were downweighted relative to the other data in the assessment, while ATM survey conditional age-at-length data were removed altogether.

Four areas of uncertainty are highlighted in the stock assessment: 1) uncertainty in recent recruitments, and relationship of recruitment to environmental conditions; 2) uncertainty in the stock structure of Pacific Sardine off of North America; 3) uncertainty in catchability for the ATM surveys; 4) appropriate data weighting in the stock assessment model.

While the recent trend in biomass is well defined, there is considerable uncertainty in the absolute scale of the population. Related to this, the difference in absolute scale between the aerial and summer ATM survey indices in the area of overlap remains a point of concern. The SSC recommends research into the catchability for the ATM surveys and the representativeness of the nighttime tow samples in terms of both the CPS species composition and sardine size- and age-composition. Similar research into the accuracy of the aerial survey could be conducted. The SSC reiterates the need for a methodology review of the ATM surveys.

Additional uncertainty in the age 1+ biomass is due to the considerable uncertainty in the 2013 recruitment. Modeling a temperature-recruitment relationship in the assessment could help address this issue. The declining trend in sea surface temperature, along with poor recruitments in 2010, 2011 and 2012 leads to some concern that the 2013 recruitment estimate in the assessment may be biased high.

The SSC notes that the assessment and OFL are for the northern subpopulation of Pacific sardine, but some portion of the U.S. catch in each year is likely from the southern subpopulation. In addition, age-0 sardine are being harvested, but these fish are not included in the summary biomass.

The change in timing of the assessment review from September to March provided five extra months for the stock assessment team (STAT) to receive and analyze the data and develop the model. Dr. Hill commented that this extra time was helpful in developing the assessment. The SSC notes that, despite this, some materials for review were not complete before the STAR panel review, and recommends that in future the Pacific sardine STAT should endeavor to follow the Terms of Reference.

The SSC endorses the 2014 Pacific sardine stock assessment as the best available science, and recommends an OFL of 39,210 mt for the northern subpopulation of Pacific sardine. The SSC further recommends that the assessment be considered a category 1 assessment.

SSC Notes:

Steepness could be looked at more closely. Myer's estimate was closer to 0.7 than the 0.8 used in the model. The value of M could be investigated further as well.

Considerable investigation of data weighting, ended up stabilizing assessment through fixing q at 1 for the two ATM surveys. It was not possible to get reasonable results through combing the two survey time series with a single selectivity.

How to manage the southern stock in season? We are removing data from the assessment which may be resulting in a lower number.

Does the new environmental data give new information on the Distribution parameter?

The new assessment provides and updated and elongated a set of recruitment estimates with which the relationship between temperature and productivity could be reevaluated. Periodically doing so would help make the assessments and management rules more consistent.

The CV of the spawning stock biomass estimate in January, 2015, is used to represent the uncertainty in the summary (1+) biomass in July, 2014. The SSC reiterates its recommendation that Stock Synthesis 3 be modified to provide a CV on summary biomass estimates.

The SSC reiterates that the scale of the population is quite uncertain.

A Beverton-Holt spawner-recruit function was assumed rather than a Ricker curve.

C. Groundfish Management, continued

7. Electronic Monitoring Program Development Including Preliminary Approval of Exempted Fishing Permits

Mr. Brett Wiedoff briefed the Scientific and Statistical Committee (SSC) on the Electronic Monitoring (EM) Program Development process (Agenda Item C.1.a) and the alternatives being explored by the Council (Agenda Item C.7.a, Attachments 1-3). The briefing was informative, and the SSC had minor questions for clarification. Data from fish tickets and logbooks could be compared for the bottom-trawl fishery to explore the precision and accuracy of visual estimates of landings. This level of precision and accuracy would reflect a best-case scenario in terms of what could be expected for visual estimates.

Mr. Dave Colpo gave a presentation to the SSC on the EM Field Program run by the Pacific States Marine Fisheries Commission (Agenda Item C.1.b). The SSC concluded that this is a very informative initial study and gives a general summary of some of the issues an EM program might encounter. There was greater agreement between compliance monitors and the video for fish counts than for fish weights. There was also better agreement for retained catch than discards. When catch is not sorted, identifying catch to the species level was difficult. Even when landings were sorted, such identification could still be challenging, especially for small fish, rockfish, and flatfish.

Many of the discrepancies between the compliance monitors and the video were when the video observed a discard event but the compliance monitor did not, and vice-versa. This indicates that some discard events may be unobserved by compliance monitors and that the video will also miss some events. There were also questions as to whether the agreement between compliance monitors and video might be different for different vessels, but any of these discrepancies will likely be negligible once one takes into account the all-volunteer nature of the data. The all-volunteer nature of the participation in the study makes the extrapolation of the results to the rest of the fleet difficult. This raises the question if sampling is representative of the entire fleet.

While the project provided useful estimates of the cost of reviewing the video, these estimates do not account fully for the costs to industry and the public. Also, these costs were only for a single reading, and these costs will increase if double-reading is necessary due to inter-reader variability.

The SSC was tasked with evaluating the scientific merits of the exempted fishing permit (EFP) applications and reviewing the applicants' approaches to addressing their respective questions. While EFPs can be useful for informing EM program design and may answer some of the questions previously proposed by the SSC (Agenda Item 1.4.c Supplemental SSC Report from April 2012), the EFPs provided to the SSC were not specifically designed to answer such questions. If an EFP were to be designed to answer specific questions in a scientific manner, the applicant would likely need either full retention or have observers onboard who would collect both the amount of discards as well as their biological characteristics. In addition to this, a research design should have explicit contingency plans for equipment failure and situations when catch cannot be identified to the species level in the video. Standards of research design should be established if the Council wishes EFPs to be designed to answer specific questions in a scientific manner.

SSC Subcommittee Assignments, April 2014

Salmon	Groundfish	Coastal Pelagic Species	Highly Migratory Species	Economics	Ecosystem-Based Management
Pete Lawson	**Vlada Gertseva**	**André Punt**	**André Punt**	**Cindy Thomson**	**Martin Dorn**
Owen Hamel	Andrew Cooper	Owen Hamel	Andrew Cooper	Vlada Gertseva	Vlada Gertseva
Galen Johnson	Martin Dorn	Dan Huppert	David Sampson	Dan Huppert	Pete Lawson
Meisha Key	Owen Hamel	Tom Jagielo		Todd Lee	Galen Johnson
Charlie Petrosky	Tom Jagielo	Meisha Key		André Punt	Todd Lee
Will Satterthwaite	Meisha Key			David Sampson	André Punt
	André Punt				Will Satterthwaite
	David Sampson				Cindy Thomson
	Tien-Shui Tsou				Tien-Shui Tsou

Bold denotes Subcommittee Chairperson

PFMC
05/27/14

DRAFT Tentative Council and SSC Meeting Dates for 2014

Council Meeting Dates	Location	Likely SSC Mtg Dates	Major Topics
March 8-13, 2014 Advisory Bodies may begin Fri, March 7 Council Session begins Sat, March 8	DoubleTree by Hilton Hotel Sacramento 2001 Point West Way Sacramento, CA 95815 Phone: 916-929-8855	Three Day SSC Session **Fri, March 7 – Sun, March 9**	IEA annual report Final CPS EFP Sardine harvest param. Review Groundfish methodology review Groundfish 2015-16 spex Rockfish barotrauma mort. rates Salmon review/Pre I CA current & IEA reports
April 5-10, 2014 **Advisory Bodies may begin Fri, Apr 4** **Council Session begins Sat, Apr 5**	Hilton Vancouver Washington 301 W. Sixth Street Vancouver, WA 98660 USA Phone: 360-993-4500	Two Day SSC Session **Fri, April 4 – Sat, April 5**	Pacific sardine assess. Groundfish 2015-16 spex Groundfish electronic monitoring Salmon methodology topic selection
June 20-25, 2014 **Advisory Bodies may begin Thu, June 19** **Council Session begins Fri, June 20**	Hyatt Regency Orange County 11999 Harbor Blvd. Garden Grove, CA 92840 Phone: 714-750-1234	Two Day SSC Session **Thu, June 19 – Fri, June 20**	Mackerel HG & mgt. measures Pacific sardine methodology review Groundfish 2015-16 spex Prelim. groundfish stock assess. plan & ToRs Groundfish electronic monitoring HMS mgt. measures, SDC, and ref. pts.
September 12-17, 2014 **Advisory Bodies may begin Thu, Sept 11** **Council Session begins Fri, Sept 12**	DoubleTree by Hilton Spokane City Center 322 N. Spokane Falls Court Spokane, WA 99201 Phone: 509-455-9600	Two Day SSC Session **Thu, Sept 11 – Fri Sept 12**	Plan science improvements Salmon methodology topic priorities Final groundfish stock assess. plan & ToRs Groundfish EFH amendment Halibut bycatch estimate
November 14-19, 2014 **Advisory Bodies may begin Thu, Nov 13** **Council Session begins Fri, Nov 14**	Hilton Orange County/Costa Mesa 3050 Bristol Street Costa Mesa, CA 92626 Phone: 714-540-7000	Two Day SSC Session **Thu, Nov 13 – Fri, Nov 14**	Prelim. CPS EFP Salmon methodology review

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

Proposed Workshops and SSC Subcommittee Meetings for 2014

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	Pacific Sardine STAR Panel	March 3-5	Council La Jolla	Punt, Key	2 CIE	CPSMT/ CPSAS	Griffin
2	CPS Survey Methodology Review	April 23	Council La Jolla	Hamel	TBD	CPSMT/ CPSAS	Griffin
3	Groundfish Historical Catch Reconstructions	Late 2014	TBD	GF Subcm	None	GMT GAP	DeVore
4	Methods for Data Reweighting Workshop	TBD	NWFSC/ Seattle	GF & CPS Subcms	TBD	GMT GAP	DeVore
5	Reference Points (Bzero) Workshop II	TBD	TBD	GF Subcm	CIE/External 1-3:	GMT GAP	DeVore
6	Evaluation of Stock Productivity Methodological Approaches	TBD	TBD	GF Subcm	TBD	GMT GAP	DeVore
7	Review Atlantis model	June 30 – July 2	NWFSC/ Seattle	EBM Subcm	3 CIE	EAS	Dahl
8	Improving Socioeconomic Analysis	Sept. 10 or 13	Council/ Spokane	Econ Subcm	TBD	GMT GAP	DeVore, Dahl

Proposed Workshops and SSC Subcommittee Meetings for 2014 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**
9	Salmon Methodology Review	Oct. 21-23	Council/ Portland	Salmon Subcm	None	STT SAS	Burner
10	Transboundary Groundfish Stocks	?	Council	2 TBD?	?	GMT GAP	DeVore