MINUTES
Scientific and Statistical Committee

Pacific Fishery Management Council
Hilton Vancouver Hotel
Heritage F Room
3001 West Sixth Street
Vancouver, Washington 98660
Telephone: 360-993-4500
April 9, 2016

Members in Attendance

Dr. Aaron Berger, National Marine Fisheries Service Northwest Fisheries Science Center, Newport, OR

Dr. Evelyn Brown, Lummi Nation, Bellingham, WA

Mr. John Budrick, California Department of Fish and Wildlife, Belmont, CA

Dr. Martin Dorn, National Marine Fisheries Service Alaska Fisheries Science Center, Seattle, WA

Dr. John Field, National Marine Fisheries Service Southwest Fisheries Science Center, Santa Cruz, CA

Dr. Owen Hamel, National Marine Fisheries Service Northwest Fisheries Science Center, Seattle, WA

Dr. Michael Harte, Oregon State University, Corvallis, OR

Dr. Dan Holland, National Marine Fisheries Service Northwest Fisheries Science Center, Seattle, WA

Dr. Galen Johnson, Northwest Indian Fisheries Commission, Olympia, WA

Dr. Peter Lawson, National Marine Fisheries Service Northwest Fisheries Science Center, Newport, OR

Dr. Kevin Piner, National Marine Fisheries Service Southwest Fisheries Science Center, La Jolla, CA

Dr. André Punt, University of Washington, Seattle, WA

Dr. David Sampson, Oregon Department of Fish and Wildlife, Newport, OR

Dr. William Satterthwaite, SSC Chair, National Marine Fisheries Service Southwest Fisheries Science Center, Santa Cruz, CA

Dr. Cameron Speir, National Marine Fisheries Service Southwest Fisheries Science Center, Santa Cruz, CA

Dr. Tien-Shui Tsou, Washington Department of Fish and Wildlife, Olympia, WA

Members Absent

Mr. Alan Byrne, Idaho Department of Fish and Game, Boise, ID

SSC Recusals for the April 2016 Meeting		
SSC Member	**Issue**	**Reason**
No recusals for this meeting.		

A. Call to Order

Chairman Will Satterthwaite called the meeting to order at 8 a.m. Mr. John DeVore provided the agenda overview. Dr. Theresa Tsou volunteered to join the CPS Subcommittee. Dr. Galen Johnson volunteered to be the chair of the Salmon Subcommittee since this is Dr. Lawson's last SSC meeting.

The SSC discussed planning details for the upcoming productivity/B_{MSY} workshop. Dr. Martin Dorn will circulate a draft prospectus document outlining goals for the workshop. Drs. John Field and Owen Hamel discussed what analyses their staffs are anticipating to do to inform workshop proceedings. The anticipated timing for the workshop is late November/early December. Dr. Dorn said he will investigate interest at AFSC.

The SSC then discussed the upcoming CPS assessment methods workshop. Members of the SSC who are planning to attend this workshop are as follows: Punt, Brown, Satterthwaite, Hamel, Berger, Tsou, Budrick, Piner, and possibly Dorn.

Dave Sampson floated the idea of November 1-3 for scheduling the historical catch reconstruction workshop.

Location considerations for both the productivity and historical catch reconstruction workshops: Seattle makes sense for productivity based on likely participants. It might make sense to convene the catch reconstruction in Seattle as well if the focus of the workshop is the Washington catch reconstruction. However, CDFW staff can have issues traveling out of state and there needs to be consideration of travel budgets at all Centers.

Dave Sampson asked who he should be contacting for meeting logistics for setting up these workshops and Will Satterthwaite thought John DeVore. Mr. DeVore agreed to help coordinate workshop logistics.

H. Coastal Pelagic Species Management

1. Final Action on Sardine Assessment, Specifications, and Management Measures

Mr. Dale Sweetnam presented the 2016 sardine update assessment to the Scientific and Statistical Committee (SSC). The update had previously been reviewed by the SSC Coastal Pelagic Species (CPS) Subcommittee on March 10th, 2016. The update assessment was complete and well documented and followed the Terms of Reference for update assessments. The SSC endorses the update assessment as the best available science, an OFL of 23,085 mt and the Category-2 default sigma (σ) of 0.72 to be used in determining the ABC. The update assessment was assigned a Category-2 designation due to increased uncertainty relative to previous full and update assessments as evidenced by poor fits to recent survey biomass indices and length composition data, and the uncertainty associated with the size of the 2015 recruitment, which represents a large

portion of the current biomass given the low overall stock size.

The spring and summer 2015 Acoustic-Trawl Method (ATM) surveys produced biomass indices of 29,048 mt (CV = 0.30) and 15,870 mt (CV = 0.80), respectively. These surveys were conducted in a similar manner to previous ATM surveys, with the exception that the spring survey was shifted substantially to the north compared to the area usually surveyed during this time of year. The habitat model indicated that sardine habitat in spring 2015 was shifted northward from the usual area due to warm ocean temperatures, and information from the fishery supported this prediction. The estimates of abundance are both below the respective indices produced in 2014 (~ 35,000 mt in spring and 26,000 mt in summer).

The SSC agrees with the STAT that the summer 2015 ATM length compositional data should be excluded from the update assessment. The 2015 recruitment is estimated to be implausibly large when the summer 2015 ATM survey lengths are included in the assessment. This is due to the estimated low survey selectivity on very small fish, which results in any small fish encountered being expanded up to an extremely large number. Selectivity is a model feature that cannot be addressed in an update according to the Terms of Reference for update assessments, and therefore removing these length data is an appropriate approach.

However, there are other indicators of the 2015 sardine recruitment being larger than those in recent years. These include: 1) a large number of sardine late larvae and juveniles (young-of-the-year) caught during the 2015 SWFSC Rockfish Recruitment survey in all three latitudinal areas (in contrast to virtually none over the previous three years); and 2) a large number of larval sardine caught along the Newport Hydrographic Line. The magnitude of encounters with larval and juvenile sardine in these surveys depends on oceanographic and spatial distribution factors as well as the overall size of the age class at the time of the survey. Therefore, it is difficult to include these types of data directly, even when conducting a full assessment. The SSC was also informed by Mr. Sweetnam that the Spring 2016 ATM survey, although not yet complete, has encountered small sardine of a size-class consistent with there being a significant 2015 recruitment.

In 2015, the SSC endorsed the approach of setting the 2014 recruitment to be the average of the previous three estimated recruitments to be more consistent with recent observed patterns in recruitment, and given retrospective patterns in recruitment estimation. In contrast to the approach used in 2015, this year the SSC concluded that allowing the model to estimate the terminal year recruitment value, after removing the summer 2015 ATM survey length data, and therefore (lacking informative data) taking the value off of the estimated spawner-recruit curve, is appropriate for estimating the 2015 recruitment.

The fits to the abundance indices and composition data in the assessment update remain poor, and the fits are worse in recent years than earlier in the time series. Sample sizes for compositional data have been consistently small for the survey, and have been small in recent years for the fisheries due limited fishing. The lack of fit is concerning. It is not clear how this can be addressed without better data. The catchability and selectivity of the acoustic and trawl portions of the ATM surveys in particular remain large sources of uncertainty in the assessment. These issues should be considered in more detail during the 2017 full assessment. In addition, the SSC continues to recommend a methodology review of the ATM survey in 2017.

SSC Notes:

Model fit is above the past 4 ATM survey indices – at edge of CIs. Fit to length data MexCal fleet over the past few years is poor.

The spring survey has caught a large number of sardines (over 13,000) in leg 1 off of Oregon, also apparently showing a strong 2015 recruitment event in the length comps.

- *The retrospective plot is unclear and the first retrospective run really begins at "-2", so maybe redo this plot in the 2016 update with a different color for last two points as forecast, and call -2 -1, etc.*
- *It would be good to include a plot of the time series of E_{MSY} for OFL/ABC and HG calculation in the document.*
- *The ATM survey backscatter graphs across all years for spring and for summer should be included in the next assessment report.*
- *It is possible that some sardines were missed to the north of the spring 2015 ATM survey.*
- *The small sample sizes from trawling during the ATM surveys remains a concern; during 2016 many trawls had just one or two fish, but most in 2 hauls; the third largest haul was 17 fish.*
- *Selectivity patterns may have changed due to changes in migration due to small stock size. The next full assessment should explore selectivity blocks for recent years.*
- *A formal consideration of recruitment autocorrelation could be explored in the next full assessment.*
- *The next full assessment should consider alternative values for M or estimate M. Note that estimating M may lead to the need to revise the HCRs, which were derived for $M=0.4yr^{-1}$.*
- *The catchability and selectivity of the acoustic and trawl portions of the ATM surveys in particular remain large sources of uncertainty in the assessment. The SSC CPS subcommittee recommends prioritizing a methodology review of the ATM survey*

New and updated data included in the 2016 update include: 1) landings data for 2015, with updated landings data from 2014 and projected catch data for the first half of 2016; 2) new fishery length data from July-December 2015, with updated length data for July 2014 through June 2015; 3) new and updated conditional age-at-length data through June 2015 for the PacNW fisheries, and through the end of 2014 for the MexCal fisheries; 4) a 2015 Daily Egg Production Method index and both spring and summer 2015 Acoustic-Trawl method (ATM) survey indices; and 5) length data from the spring 2015 ATM survey (the summer 2015 ATM survey length data were not used for reasons described below).

Last year, during the 2015 sardine assessment update, the STAT recognized that there had been a persistent retrospective issue with recruitment in preceding years, with terminal year recruitments determined to have been overestimated in the assessment models based on subsequent information.

SSC CPS subcommittee meeting report: Sardine assessment update review March 10, 2016, Sacramento, California.

General
Dr. Kevin Hill (SWFSC) presented the 2016 sardine update assessment to the SSC CPS subcommittee on March 10th, 2016, following presentations by Dr. Emmanis Dorval on the 2015 DEPM estimate, and by Dr. Juan Zwolinski on the 2015 ATM surveys. The SSC CPS subcommittee wishes to thank the STAT for a complete and well documented update assessment.

New data included in the 2016 update proposed by the STAT include: 1) landings data for 2015, with updated landings data from 2014 and projected catch data for the first half of 2016; 2) new fishery length data from July-December 2015, with updated length data for July 2014 through June 2015; 3) new and updated conditional age-at-length data through June 2014 for the PacNW fisheries, and through the end of 2014 for the MexCal fisheries; 4) a 2015 DEPM index and both the spring and the summer 2015 ATM survey indices; and 5) length data from the spring 2015 ATM survey (the summer 2015 ATM survey length data were not used for reasons described below).

The spring and summer 2015 ATM surveys produced biomass indices of 29,048 mt (CV = 0.30, ln(SE) = 0.29) and 15,870 mt (CV = 0.80, ln(SE) = 0.70), respectively. These surveys were conducted in a similar manner to previous ATM surveys, with the exception that the spring survey was shifted substantially to the north compared to the area usually surveyed during this time of year. In the spring of 2015, the habitat model indicated that sardine habitat was shifted northward from the usual area due to warm ocean temperatures, and information from the fishery supported this prediction. The estimates of abundance are both below the respective indices produced in 2014 (~ 35,000 mt in spring and 26,000 mt in summer). Very little catch has been taken in the current management year (less than 300 mt in the second half of 2015).

The major issues with the update assessment that were discussed at the SSC CPS subcommittee meeting related to: 1) the 2016 DEPM index, and 2) how to estimate the size of the 2015 cohort.

DEPM Index
The DEPM survey captured only six females that were at the right spawning stage for fecundity estimation. Fecundity data were consequently borrowed from the previous two years and combined with the current year's samples to estimate fecundity for applying the DEPM. The CPS subcommittee was concerned with this approach, as it deviates from usual practice as well as the observation that fecundity appears to vary among years. However, when the 2015 DEPM index was removed from the assessment, the results were essentially unchanged. The CPS subcommittee therefore concluded there was no harm in including the 2015 DEPM estimate in the 2016 update assessment, but that the analysis and question of inclusion should be revisited during the full assessment in 2017.

Recruitment estimate

During the 2015 sardine assessment update, the 2015 STAT recognized that there had been a persistent retrospective issue with recruitment in preceding years, with terminal year recruitments estimated in the assessment models proving to have been overestimated based on subsequent information. The SSC endorsed the approach of setting the 2014 recruitment to be the average of the previous three estimated recruitments (as had been done previously in the Pacific mackerel assessment) to be more consistent with recent observed patterns in recruitment.

Coming into the subcommittee meeting, the 2016 sardine STAT suggested using the same approach for the 2015 recruitment estimate (i.e., setting the 2015 recruitment to the average of the estimates of recruitment for 2012, 2013 and 2014). However, in contrast to the situation during the 2015 update assessment, there were data to suggest that the 2015 recruitment may have been relatively large. In fact, when the 2015 recruitment was estimated with all of the data in the model, including the summer 2015 ATM survey lengths, the estimated recruitment was the largest in the time series. This was because the selectivity of the very small fish (< 10 cm) that were observed in large numbers in the summer 2015 ATM is estimated to be near zero in the model, and therefore any fish encountered are expanded up to a very large, if implausible, value. Selectivity is a model feature that cannot be addressed in an update model according to the Terms of Reference for update assessments, and therefore removing this year of length data is an appropriate approach. However, the evidence of a relatively large recruitment event should not be ignored. There are other indicators of a relatively strong 2015 sardine recruitment event. These include: 1) a large number of sardine late larvae and juveniles (young-of-the-year) caught in the 2015 SWFSC Rockfish Recruitment survey in all three latitudinal areas (in contrast to virtually none over the previous three years); and 2) a large number of larval sardine caught along the Newport Hydrographic Line (Leising et al. 2015). In addition, the CalCOFI sea surface temperature data which are used to determine E_{MSY} is the highest on record, providing for the maximum allowable E_{MSY} values in the harvest control rules.

The CPS subcommittee concluded that while there was no evidence of a strong 2014 recruitment during the 2015 update assessment review, currently there is no direct evidence of a poor 2015 recruitment, and in contrast, several indicators of a strong recruitment, with the only indicator of poor recruitment in 2015 being recent poor recruitments (and the appearance of some degree of autocorrelation in recruitment). Therefore, allowing the model to estimate the terminal year recruitment value (with no summer 2015 ATM survey length data, and therefore (lacking informative data) taking the value off of the estimated spawner-recruit curve) is appropriate. The CPS subcommittee therefore recommended that the 2015 recruitment be estimated from the stock-recruitment relationship rather than either being set to the average of the estimates for 2012, 2013 and 2014 or estimated within the assessment when the assessment includes the summer 2015 ATM survey length-frequency data.

Conclusion

The SSC CPS subcommittee finds the 2016 update with the recommended recruitment estimation approach to represent an appropriate update of the 2014 sardine assessment model (i.e. it satisfies the Terms of Reference for Update Assessments). The results are consistent with the previous assessment given the new data, and hence represent the best available science for management of the northern subpopulation of Pacific sardine. The biomass estimate and management quantities for this model are shown in part (a) of the table on page 12 of the 2016 Sardine Assessment Executive Summary. The SSC CPS subcommittee recommends endorsing the 2016/17 Pacific

sardine OFL of 23,085 mt in that table.

May 2016 data limited workshop
The CPS subcommittee briefly discussed the upcoming (2-5 May 2016) workshop that will respond to Council requests for planning for stock assessment of Pacific anchovy, including an assessment to be conducted during 2016. The planning for the workshop is underway. Jim Ianelli and André Punt have been designated as co-chairs. Seven or eight experts will be invited, along with representatives of the CPSAS and CPSMT. The CPS subcommittee agreed that the workshop should be conducted following the Terms of Reference for Methodology Reviews given that the methodology identified during the workshop could form the basis for an assessment of northern anchovy this year. The subcommittee recommends that the report of the workshop be reviewed by the SSC at the June Council meeting so that feedback can be provided to the analysts in a timely manner.

E. Salmon Management

2. Methodology Review Preliminary Topic Selection

The Scientific and Statistical Committee (SSC) met with Mr. Larrie LaVoy and Dr. Mike O'Farrell to discuss possible methodology review topics for 2016. The Model Evaluation Workgroup (MEW) will continue to work on the Chinook Fishery Regulation Assessment Model (FRAM) base period updates. The Salmon Technical Team (STT) had no new items for methodology review topics.

Specific items proposed for review are listed below with the responsible party listed in parentheses:

- Chinook FRAM base period update, including documentation and comparison with the current base period (MEW).

- Chinook FRAM model documentation including FRAM algorithms and a user's manual (MEW).

The most recent FRAM documentation published on the Council website is dated October, 2008. A complete set of updated documentation is due.

Dr. O'Farrell briefed the SSC on the progress of the Ad Hoc Sacramento River Winter Chinook Workgroup. The SSC anticipates reviewing the Workgroup product in September if analysis and documentation have been completed, and will determine at that time if additional methodology review is needed.

F. Groundfish Management

7. Initial Stock Assessment Plan and Terms of Reference (TOR)
   For Groundfish and Coastal Pelagic Species

Dr. Jim Hastie briefed the Scientific and Statistical Committee (SSC) at the March and April

meetings on progress toward implementation of a stock assessment prioritization process for Pacific Coast Groundfish, and in April there was additional discussion of the list of stocks that could potentially be assessed in the 2017 assessment cycle based on that process.

Stock Assessment Prioritization for West Coast Groundfish

The SSC discussed draft scores for prioritization factors developed for 71 stocks in the Groundfish Fishery Management Plan (FMP). The list excluded stocks not currently included in the FMP, stocks with cumulative 2010 to 2014 landings less than 1 mt, and ecosystem component species. Some factors in the guidance document were either excluded (ecosystem importance) or heavily downweighted (non-catch value) due to challenges in scoring those factors. Factors that could be incorporated in the future include indicators of "unexpected change" (observed trends that diverge substantially from those predicted by the most recent assessment), but these were not available for review.

SSC discussion continued from the last meeting regarding the sensitivity of prioritization rankings to the relative weighting of commercial vs. recreational fisheries. Specifically, it was noted that virtually all important recreational species are also important to commercial fisheries, although the reverse is often not true (largely due to depth constraints and other factors). Consequently, a substantial number of commercial species are of no substantive importance to recreational fisheries, leading to a greater relative priority ranking for recreational over commercial species when the commercial and recreational importance factors are "evenly" weighted. Dr. Hastie explored a wider range of alternative weights for these factors in advance of the April meeting, which revealed the consistencies, differences, and sensitivities to various weighting schemes. The SSC found that this framework, which is still in the preliminary stages of development, provides a useful way to identify factors to consider in developing stock assessment priorities. The SSC also recognized that the scoping out of available data that followed this exercise proved useful in understanding the data gaps that constrain the ability to assess some highly ranked species.

Initial Stock Assessment Plans for the 2017 Assessment Cycle

The SSC and Dr. Hastie agreed that the maximum possible number of assessment "units" for the 2017 assessment cycle is likely to be eight. However, some assessments of nearshore species could require the development of multiple models, and thus could need more than one "unit" of assessment and review effort. Two assessments on that list, bocaccio and darkblotched rockfish, were good candidates for update assessments (and were recommended as such following the last full assessments). Blackgill rockfish, last assessed in 2011, is another candidate for an update assessment.

The SSC agreed that yellowtail rockfish, lingcod, California scorpionfish, cabezon, blue/deacon rockfish, and yelloweye rockfish are all good candidates for full assessments in the 2017 cycle. A vermilion/sunset rockfish complex assessment is desirable, but is associated with challenges that include multiple species and complicated population structure. As cabezon attainment has been well below the ACL, this could reduce the importance of a full assessment for this species. Assessments for both longnose skate (in the top 20) and big skate (not in the top 20) were discussed. Substantive progress on several ongoing efforts (improvement of aging methods for longnose skate, better catch reconstructions of historical skate landings to the species level) is needed prior to conducting assessments for these species. Moreover, conducting both assessments together would be optimal.

The SSC discussed the need to ensure continued progress in assessing previously unassessed species. However, very few of the previously unassessed species in the "top 20" list appear to have sufficient data to develop an abundance index. Brown rockfish does have adequate data, and was assessed previously using data moderate methods. Some species that ranked low in this draft prioritization process, such as bank rockfish, may nonetheless be good candidates for the next or future cycles.

Revisions to the Terms of Reference

The SSC also discussed revisions to the terms of reference (TOR) for stock assessments, methodology reviews, and rebuilding analyses (Agenda Item F.7, Attachments 5-7). Current draft revisions are based on discussions and recommendations from the December 2015 "post-mortem" meeting (Agenda Item F.7, Attachment 8). Most of these are changes to the TOR for stock assessments, with methodology and rebuilding analysis TOR essentially unchanged. The SSC endorses the proposed changes in these attachments with the following exceptions:

- The suggested list of "best practices" should be removed from the final adopted TOR, which should instead refer to a list of either "accepted" or "standard" guidance regarding the benefits and shortcomings of various methods that will be distributed to Stock Assessment teams and STAR Panels following the November 2016 meeting.
- Inclusion of an executive summary should be optional for draft assessment documents prior to STAR panel reviews, rather than required.
- The hard deadline for data provision to assessment authors should be seven weeks in advance of the review panel, and additional details concerning data workshops should be added to the TOR.

SSC Notes:

Stock Assessment Prioritization

In response to earlier SSC comments, all factors are now standardized to have a maximum score of 10, with a set of weightings applied to these factor scores to reflect the perceived importance of each factor. The target assessment frequency was defined based on the mean age of the catch (biomass based), in March the SSC discussed the fact that mean generation time may be a more appropriate metric for informing target frequency, but additional analysis was not available for the April review.

The SSC discussed whether yelloweye rockfish would be best assessed as an update or a full assessment, and there was general agreement that a full assessment would be most appropriate. Preliminary reviews of available CPUE data for quillback rockfish appear to indicate that there are insufficient CPUE data to support an index in California waters, although there may be in Oregon waters. In discussing bank rockfish, it was noted that the PSA score for this species reflected existing RCA protections to the stock in the shallow part of its (shelf-slope) range, but that if the RCAs were substantially altered, that vulnerability score could increase. This could be a factor for other PSA scores as well.

Terms of Reference

With respect to not requiring an executive summary for STAR Panel review drafts, it was noted

participants at that stage of the process should be looking at the whole document, not simply looking at the base model results, in order for their contributions and input to be meaningful. For the seven week deadline, there was some discussion of just how hard and fast this deadline was, suggestion to change the word "should" to "shall," such that there was no explicit expectation that a STAT had to include data not provided by those deadlines. However, it was also noted that the extent of tardiness and complexity associated with addressing new information were also factors. It was also noted that participants providing data to STATs should also inform (via email or other means) the stock assessment coordinator and/or STAR panel chair to ensure there is clarity regarding the timeliness of data availability. Finally, it was noted that among the timeline considerations that should be included in "standard practices" would be to ensure that STATs consult with state representatives regarding the catch histories used in assessments well in advance of the star panel.

SSC Subcommittee Assignments, April 2016

Salmon	Groundfish	Coastal Pelagic Species	Highly Migratory Species	Economics	Ecosystem-Based Management
Pete Lawson	**David Sampson**	**André Punt**	**Kevin Piner**	**Cameron Speir**	**Martin Dorn**
John Budrick	Aaron Berger	Aaron Berger	Aaron Berger	Michael Harte	Evelyn Brown
Alan Byrne	Evelyn Brown	Evelyn Brown	John Field	Dan Holland	John Field
Owen Hamel	John Budrick	John Budrick	Michael Harte	André Punt	Michael Harte
Michael Harte	Martin Dorn	Alan Byrne	Dan Holland	David Sampson	Dan Holland
Galen Johnson	John Field	John Field	André Punt		Galen Johnson
Will Satterthwaite	Owen Hamel	Owen Hamel	David Sampson		Pete Lawson
Cameron Speir	André Punt	Will Satterthwaite			Kevin Piner
	Tien-Shui Tsou				André Punt
					Will Satterthwaite
					Tien-Shui Tsou

Bold denotes Subcommittee Chairperson

DRAFT Tentative Council and SSC Meeting Dates for 2016

Council Meeting Dates	Location	Likely SSC Mtg Dates	Major Topics
March 8-14, 2016 Advisory Bodies may begin Tue, March 8 Council Session begins Wed, March 9	DoubleTree by Hilton Hotel Sacramento 2001 Point West Way Sacramento, CA 95815 Phone: 916-929-8855	Two-day SSC Session **Tue, March 8 – Wed, March 9** One-day CPS Subcm Session **Thu, March 10**	Chinook FRAM base period co-manager update Identify salmon management objectives Salmon review/Pre I CA current & IEA report FEP indicators and climate shift initiatives update Groundfish gear changes
April 8-14, 2016 **Advisory Bodies may begin Fri, Apr 8** **Council Session begins Sat, Apr 9**	Hilton Vancouver Washington 301 W. Sixth Street Vancouver, WA 98660 USA Phone: 360-993-4500	One-day SSC Session **Sat, April 9**	Pacific sardine assessment and management measures Groundfish initial stock assessment plan and Terms of Reference Salmon methodology topic selection
June 22-28, 2016 **Advisory Bodies may begin Wed, June 22** **Council Session begins Thu, June 23**	Hotel Murano 1320 Broadway Plaza Tacoma, WA 98402 Phone: 253-627-3167	Two-day SSC Session **Wed, June 22 – Thu, June 23**	HMS biennial management measures, SDC, and ref. pts. Groundfish final stock assessment plan and Terms of Reference Sablefish ecosystem indicators 5-year IFQ program review
September 14-20, 2016 **Advisory Bodies may begin Wed, Sept 14** **Council Session begins Thu, Sept 15**	The Riverside Hotel 2900 Chinden Blvd Boise, ID 83714 Phone: 208-343-1871	Two-day Ecosystem Subcm Session **Mon, Sept 12 – Tue, Sept. 13** Two-day SSC Session **Wed, Sept 14 – Thu Sept 15**	Anchovy assessment workshop report CPS MSST report Anchovy active management alts. Salmon methodology topic priorities SRWC control rule recommendations Groundfish EFH-RCA amendment PPA FEP indicators initiative FPA

November 15-21, 2016 **Advisory Bodies may begin Tue, Nov 15** **Council Session begins Wed, Nov 16**	Hyatt Regency Orange County 11999 Harbor Blvd. Garden Grove, CA 92840 Phone: 714-750-1234	One day Groundfish and Economics Subcms Session **Mon, Nov 14** Two-day SSC Session **Tue, Nov 15 – Wed, Nov 16**	CPS methodology topic selection Anchovy stock assessment CPS SAFE Groundfish stock assessment methodology topic priorities 5-year IFQ program review Sablefish ecosystem indicators 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 2016
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	Nearshore Groundfish Assessment Workshop	March 22-23	ODFW/ Portland	?	?	?	DeVore
2	CPS Assessment Workshop	May 2-5	SWFSC/ La Jolla	2-3 CPS Subcommittee members	Outside experts	CPSMT CPSAS	Griffin
3	Alternative Anchovy Management Webinar	Late July?	TBD	CPS Subcommittee?	TBD	CPSMT CPSAS	Griffin
4	Anchovy STAR Panel (Contingent on an Assessment)	Oct.?	TBD/ La Jolla	CPS Subcommittee	CIE	CPSMT CPSAS	Griffin
5	Salmon Methodology Review	Late Oct.?	Council/ Portland	Salmon Subcommittee	None	STT SAS MEW	Burner
6	Groundfish Historical Catch Reconstructions	Nov. 1-3?	TBD	GF Subcommittee	TBD	GMT GAP	DeVore
7	Evaluation of Stock Productivity Methodological Approaches/B_{MSY} Workshop	Late Nov./early Dec.?	TBD	GF & HMS Subcommittees	TBD	GMT HMSMT	DeVore
8	PICES/ICES Meeting on Small Pelagics	Nov. 1-13	PICES/ICES/ San Diego	TBD	TBD	TBD	TBD

	Proposed Workshops and SSC Subcommittee Meetings for 2016						
	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	Recreational CPUE Standardization Workshop	TBD	PFMC/ TBD	TBD	TBD	GMT GAP	DeVore
10	Methods for Data Reweighting Workshop	TBD	NWFSC/ Council	GF & CPS Subcommittees	TBD	GMT GAP	DeVore
11	Transboundary Groundfish Stocks	?	Council	2 TBD?	?	GMT GAP	DeVore