

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON INITIAL HARVEST SPECIFICATIONS AND MANAGEMENT MEASURES FOR 2025-26

The SSC reviewed Agenda Item G.6, Supplemental Revised Attachment 1 and Supplemental Revised Attachment 2, and received a report from the SSC Groundfish Subcommittee (GFSC) that is appended to this report. These attachments provide 1) the overfishing limits (OFLs) for 2025 and 2026 under default harvest control rules, 2) the category designation for each stock and area, and 3) the constant or time-varying sigmas (i.e., increasing scientific uncertainty with the age of the assessment) used to calculate annual acceptable biological catch (ABC) buffers.

OFLs were obtained directly from 2023 stock assessments, stock assessment updates, and catch-only projections, and from previously published and adopted assessments and projections. The SSC focused the review on stocks that are highlighted in yellow and blue in Agenda Item G.6, Supplemental Revised Attachment 1, and provides updated values in Table 1 (2025) and Table 2 (2026) of this statement. Several OFL and ABC values are not yet available for adoption, for reasons specified in the GFSC report and reiterated below.

The SSC conditionally endorses the values in Agenda Item G.6, Supplemental Revised Attachment 1, and those in Table 1 and Table 2 of this statement, with the following notes and revisions:

- The category designations for Oregon black rockfish and California copper rockfish should be category 1, not category 2.
- The OFL and ABC values for greenspotted rockfish are based on an assessment adopted in 2011, but year-specific projections are not available for 2025 and 2026. The SSC recommends rolling over 2024 values for the OFL and ABC in both 2025 and 2026.
- The rex sole OFL and ABC for 2025 are based on a P^* of 0.40, which results in a 3,966 mt ABC for 2025. The OFL and ABC values for 2026 based on this P^* value are not yet available but will be produced for the November meeting.
- The yellowtail rockfish OFL and ABC for north of 40°10' N. lat. are not yet available. The SSC concurs with the GFSC recommendation that a catch-only projection be requested of the NWFSC by the Council at this meeting, for review and adoption at the November 2023 meeting.
- The quillback rockfish OFL and ABC will be based on the rebuilding analysis, which will be reviewed by the GFSC at the mop-up review (late September 2023) meeting and the SSC in November.
- The 2019 catch-only projection for chilipepper rockfish incorrectly used the 2015 assessment update rather than the 2017 catch-only projection that had corrected errors in historical catches. Similar to the SSC recommendation for yellowtail rockfish, the SSC recommends that the Council request that the Northwest Fisheries Science Center (NWFSC) develop a catch-only projection for chilipepper rockfish, for review and adoption at the November meeting.
- For vermilion rockfish, the Council adopted new stock definitions under Amendment 31, with Washington and Oregon vermilion rockfish as the northern stock and California vermilion rockfish as the southern stock. OFLs and ABCs for the northern stock were developed based on the approach outlined

in the GFSC report. Those values are not yet available for the southern stock, but will be produced and reviewed at the November meeting.

- Copper rockfish in California was defined as one statewide stock under Amendment 31. The two sub-area assessments have the same category designation and buffer, thus OFLs and ABCs are based on combining the stock-wide values from the 2023 sub-area assessments.
- The projected 2025 OFL for sablefish, based on the 2023 limited update assessment, is more than triple the amount of the adopted 2024 OFL. The Council should be aware of the sensitivity to estimates of recent large recruitments when considering the appropriate P* value for these ABC values.

The SSC will review the additional values needed for the 2025-2026 Harvest Specifications and Management Measures cycle in November 2023. The SSC expresses appreciation to the Northwest Fisheries Science Center and Southwest Fisheries Science Center stock assessors and their coauthors for completing the assessments and the additional analyses needed to provide management advice for the specifications process.

PFMC
09/11/23

Table 1. 2025 harvest specifications (mt) and stock category designations for west coast groundfish stocks and stock complexes under default harvest control rules. Specifications not yet available in yellow highlight. Blue highlight = defined groundfish stocks (Amendment 31).

Stock/Complex	Area	Category	P*	Buffer	2025 OFL	2025 ABC	2025 ACL	Assess Year	Notes
Yelloweye Rockfish	CW	1 (Year Based)	0.40	0.176	105.80	87.20	55.80	2017	OFL based on the 2023 catch-only update of the 2017 rebuilding analysis (Table 1, Agenda Item G.2, Supp Revised Attachment 15 Sept 2023).
Black Rockfish	WA	1 (Year Based)	0.45	0.065	261.56	244.56		2023	OFL projected using a 50% SPR harvest rate in the 2023 full assessment (Table vii, pg xix).
Black Rockfish	CA	1 (Year Based)	0.45	0.065	250.10	233.80		2023	OFL projected using a 50% SPR harvest rate in the 2023 full assessment (Table 65, pg 142).
Canary Rockfish	CW	1 (Year Based)	0.45	0.065	646.93	604.88		2023	OFL projected using a 50% SPR harvest rate in the 2023 full assessment (Table vii, pg xvi).
Chilipepper	S of 4010	1 (Year Based)	0.45					2015	Request for catch-only projection for November 2023 (2025-2026 values).
Petrale Sole	CW	1 (Year Based)	0.45	0.065	2,518.00	2,354.00		2023	OFL projected using a 30% SPR harvest rate in the 2023 full assessment (Table 30, pg 75).
Sablefish	CW	1 (Year Based)	0.45	0.065	39,085.00	36,545.00		2023	OFL projected using a 45% SPR harvest rate in the 2023 limited update assessment (Table vii, pg xvi).
Sablefish	S of 36	1 (Year Based)	0.45	0.065				2023	
Sablefish	N of 36	1 (Year Based)	0.45	0.065				2023	
Shortspine Thornyhead	CW	2 (Year Based)	0.40	0.238	939.75	716.09	710.84	2023	OFL projected using a 50% SPR harvest rate in the 2023 full assessment (Table 7, pg 42).
Shortspine Thornyhead	S of 3427	2 (Year Based)	0.40	0.238				2023	
Shortspine Thornyhead	N of 3427	2 (Year Based)	0.40	0.238				2023	
Widow Rockfish	CW	1 (Year Based)	0.45	0.083	12,254.00	11,237.00		2019	OFL based on the 2023 catch-only update of the 2019 update assessment (Table 2; Agenda Item G.2, Attachment 14 Sept 2023).
Yellowtail Rockfish	N of 4010	1 (Year Based)	0.45					2017	Request for catch-only projection for November 2023 (2025-2026 values).
Black Rockfish	OR	1 (Year Based)	0.45	0.065	367.50	343.62		2023	OFL projected using a 50% SPR harvest rate in the 2023 full assessment (Table vii, pg xix).
Copper Rockfish	N of 42	2 (Year Based)	0.45	0.143	19.06	16.34	16.34	2021	OFL from the 2023 projection update of the 2021 assessments, based on a stock definition of OR and WA (N of 42) (Table 5 pg 4; Agenda Item G.6, Supp Revised Attachment 2 September 2023).

Stock/Complex	Area	Category	P*	Buffer	2025 OFL	2025 ABC	2025 ACL	Assess Year	Notes
Copper Rockfish	CA	1 (Year Based)	0.45	0.065	143.50	134.10	131.90	2023	OFL projected from the 2023 full assessment; stock defined as CA (S of 42), apportioned to complex (Table xiv, pg xxvii).
Copper	42 - 4010	1 (Year Based)	0.45	0.065			6.80	2023	
Copper	S of 4010	1 (Year Based)	0.45	0.065			125.00	2023	
Quillback	42 - 4010	2 (Year Based)	0.45					2021	Harvest specifications not yet available; will be based on rebuilding analysis reviewed by SSC GFSC (late Sept) and SSC in November. Stock defined as CA (S of 42), apportioned to complex.
Quillback	S of 4010	2 (Year Based)	0.45					2021	Harvest specifications not yet available; will be based on rebuilding analysis reviewed by SSC GFSC (late Sept) and SSC in November. Stock defined as CA (S of 42), apportioned to complex.
Rex Sole	CW	2 (Year Based)	0.40	0.238	5,205.59	3,966.66		2023	OFL projected using a 30% SPR harvest rate in the 2023 data moderate assessment (Table vi, pg xiv).
Chilipepper	N of 4010	1 (Year Based)	0.45					2015	Request for catch-only projection for November 2023 (2025-2026 values).
Greenspotted	42 - 4010	2 (Year Based)	0.45	0.220	88.44	69.70	69.27	2011	2024 OFL and ABC values.
Vermilion Rockfish	N of 42	1 and 2 (Year Based)	0.45	0.069	13.97	13.01	13.01	2021	OFL from the 2023 projection update of the 2021 assessments, based on a stock definition of OR and WA (N of 42) (Table 6 pg 4; Agenda Item G.6, Supp Revised Attachment 2 September 2023).
Vermilion	42 - 4010							2021	Harvest specifications not yet available, anticipated by November. Stock defined as CA (S of 42), apportioned to complex. SSC will need to combine assessments to develop harvest specifications and harvest control rule.
Greenspotted	4010 - 3427	2 (Year Based)	0.45	0.220	42.58	33.55	33.12	2011	2024 OFL and ABC values.
Greenspotted	S of 3427	2 (Year Based)	0.45	0.220	45.86	36.14	36.14	2011	2024 OFL and ABC values.
Vermilion	S of 4010							2021	Harvest specifications not yet available, anticipated by November. Stock defined as CA (S of 42), apportioned to complex. SSC will need to combine assessments to develop harvest specifications and harvest control rule.

Table 2. 2026 harvest specifications (mt) and stock category designations for west coast groundfish stocks and stock complexes under default harvest control rules. Specifications not yet available in yellow highlight. Blue highlight = defined groundfish stocks (Amendment 31).

Stock/Complex	Area	Category	P*	Buffer	2026 OFL	2026 ABC	2026 ACL	Assess Year	Notes
Yelloweye Rockfish	CW	1 (Year Based)	0.4 0	0.183	108.30	88.50	56.60	2017	OFL based on the 2023 catch-only update of the 2017 rebuilding analysis (Table 1, Agenda Item G.2, Supp Revised Attachment 15 Sept 2023).
Black Rockfish	WA	1 (Year Based)	0.4 5	0.070	259.38	241.22		2023	OFL projected using a 50% SPR harvest rate in the 2023 full assessment (Table vii, pg xix).
Black Rockfish	CA	1 (Year Based)	0.4 5	0.070	265.30	246.80		2023	OFL projected using a 50% SPR harvest rate in the 2023 full assessment (Table 65, pg 142).
Canary Rockfish	CW	1 (Year Based)	0.4 5	0.070	654.71	608.88		2023	OFL projected using a 50% SPR harvest rate in the 2023 full assessment (Table vii, pg xvi).
Chilipepper	S of 4010	1 (Year Based)	0.4 5					2015	Request for catch-only projection for November 2023 (2025-2026 values).
Petrale Sole	CW	1 (Year Based)	0.4 5	0.070	2,424.00	2,255.00		2023	OFL projected using a 30% SPR harvest rate in the 2023 full assessment (Table 30, pg 75).
Sablefish	CW	1 (Year Based)	0.4 5	0.070	37,310.00	34,699.0 0		2023	OFL projected using a 45% SPR harvest rate in the 2023 limited update assessment (Table vii, pg xvi).
Sablefish	S of 36	1 (Year Based)	0.4 5	0.070				2023	
Sablefish	N of 36	1 (Year Based)	0.4 5	0.070				2023	
Shortspine Thornyhead	CW	2 (Year Based)	0.4 0	0.253	962.46	718.96	713.47	2023	OFL projected using a 50% SPR harvest rate in the 2023 data moderate assessment (Table 7, pg 42).
Shortspine Thornyhead	S of 3427	2 (Year Based)	0.4 0	0.253				2023	
Shortspine Thornyhead	N of 3427	2 (Year Based)	0.4 0	0.253				2023	
Widow Rockfish	CW	1 (Year Based)	0.4 5	0.087	11,382.00	10,392.0 0		2019	OFL based on the 2023 catch-only update of the 2019 update assessment (Table 2; Agenda Item G.2, Attachment 14 Sept 2023).
Yellowtail Rockfish	N of 4010	1 (Year Based)	0.4 5					2017	Request for catch-only projection by November 2023 (2025-2026 values).
Black Rockfish	OR	1 (Year Based)	0.4 5	0.070	377.12	350.50		2023	OFL projected using a 50% SPR harvest rate in the 2023 full assessment (Table vii, pg xix).
Copper Rockfish	N of 42	2 (Year Based)			18.63	15.82	15.82	2021	OFL from the 2023 projection update of the 2021 assessments, based on a stock definition of OR and WA (N of 42) (Table 5 pg 4; Agenda Item G.6, Supp Revised Attachment 2 September 2023).

Stock/Complex	Area	Category	P*	Buffer	2026 OFL	2026 ABC	2026 ACL	Assess Year	Notes
Copper Rockfish	CA	1 (Year Based)	0.45	0.070	145.30	135.20	133.10	2023	OFL projected from the 2023 full assessment; stock defined as CA (S of 42), apportioned to complex (Table xiv, pg xxvii).
Copper	42 - 4010	1 (Year Based)	0.45	0.070			6.70	2023	
Copper	S of 4010	1 (Year Based)	0.45	0.070			126.40	2023	
Quillback	42 - 4010	2 (Year Based)	0.45					2021	Harvest specifications not yet available; will be based on rebuilding analysis reviewed by SSC GFSC (late Sept) and SSC in November. Stock defined as CA (S of 42), apportioned to complex.
Quillback	S of 4010	2 (Year Based)	0.45					2021	Harvest specifications not yet available; will be based on rebuilding analysis reviewed by SSC GFSC (late Sept) and SSC in November. Stock defined as CA (S of 42), apportioned to complex.
Rex Sole	CW	2 (Year Based)	0.40					2023	Harvest specifications not yet available for 2026; values from the 2023 assessment with P*=0.4 will be calculated for November 2023.
Chilipepper	N of 4010	1 (Year Based)	0.45					2015	Request for catch-only projection for November 2023 (2025-2026 values).
Greenspotted	42 - 4010	2 (Year Based)	0.45	0.227	88.44	69.70	69.27	2011	2024 OFL and ABC values.
Vermilion Rockfish	N of 42	1 and 2 (Year Based)	0.45	0.074	13.65	12.64	12.64	2021	OFL from the 2023 projection update of the 2021 assessments, based on a stock definition of OR and WA (N of 42) (Table 6 pg 4; Agenda Item G.6, Supp Revised Attachment 2 September 2023).
Vermilion	42 - 4010							2021	Harvest specifications not yet available, anticipated by November. Stock defined as CA (S of 42), apportioned to complex. SSC will need to combine assessments to develop harvest specifications and harvest control rule.
Greenspotted	4010 - 3427	2 (Year Based)	0.45	0.227	42.58	33.55	33.12	2011	2024 OFL and ABC values.
Greenspotted	S of 3427	2 (Year Based)	0.45	0.227	45.86	36.14	36.14	2011	2024 OFL and ABC values.
Vermilion	S of 4010							2021	Harvest specifications not yet available, anticipated by November. Stock defined as CA (S of 42), apportioned to complex. SSC will need to combine assessments to develop harvest specifications and harvest control rule.

Scientific and Statistical Committee's Groundfish Subcommittee Report on 2023 Stock Assessments and Harvest Specifications

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September 7, 2023

Overview

The Groundfish Subcommittee (GFSC) of the Scientific and Statistical Committee (SSC) met on September 7, 2023, to discuss harvest specifications for 2025 and beyond resulting from 2023 stock assessments, revisions to specifications from prior assessments to address errors and discuss proposed stock assessment methodology review topics. A list of GFSC attendees is provided in Appendix 1. An overview of the GFSC deliberations and recommendations are provided to inform SSC discussions regarding endorsement of harvest specifications for 2025 and beyond.

Initial Harvest Specifications and Management Measure Actions for 2025-2026: Review of proposed 2025-2026 overfishing limits (OFLs), acceptable biological catch (ABC) based on SSC default sigmas for each stock category and P* (P-star) values from 2023-2024.

The GFSC reviewed 1.) the proposed overfishing limits (OFLs) for 2025 and 2026 under default harvest control rules, 2.) the recommended category designation for each stock, and 3.) the constant or time-varying sigma values used to calculate annual acceptable biological catch (ABC) buffers. The GFSC focused the review on stocks that are highlighted in yellow and blue in Agenda Item G.6, Attachment 1.

The GFSC noted:

- Category designations for Oregon black rockfish and California copper rockfish should be category 1, not category 2.
- Greenspotted rockfish will use the equilibrium maximum sustainable yield (MSY) (95.7 mt) as the basis for the OFL with category 3 buffer as the basis for the ABC. By-area ABCs will be available in November.
- The rex sole default P* is 0.4 with a 0.238 buffer in 2025, which results in 3,966 mt ABC for 2025. The OFL and ABC for 2026 will be recalculated and available in November. The stock assessment team used P*=0.45 as default, which needs to be corrected in the stock assessment document.
- The yellowtail rockfish OFL and ABC for north of 40°10' N. lat. are not yet available. The GFSC recommends that a catch-based projection be requested by the Council in September and conducted for review by the GFSC at the mop-up review (scheduled September 25-29, 2023).
- The quillback rockfish OFL and ABC will be based on the rebuilding analysis, which will be reviewed by the GFSC at the mop-up review and be available for review by the SSC in November.
- The 2019 catch-only projection for chilipepper rockfish was based on the 2015 model, but it should have used the 2017 model for the projection. The 2017 model corrected the errors in historical

catches. A new projection using the 2017 model will be conducted while the category designation is still based on the 2015 assessment. Thus, the OFL and ABC will be available in November.

- For vermilion rockfish, the Council adopted new stock definitions in Amendment 31, with Washington and Oregon vermilion rockfish as the northern stock and California vermilion rockfish as a separate stock. In 2021, four assessments with different boundaries (WA, OR, N. CA, and S. CA) from those defined in Amendment 31 were conducted. Methods for combining assessments were described in the June 2023 Agenda Item H.3.a, NWFSC Report 1. For the northern stock, the Washington assessment was designated category 2 and the Oregon assessment designated category 1. Combined OFLs for the northern stock (Washington and Oregon) in 2025 and 2026 are 13.97 mt and 13.65 mt, respectively. Results for the California stock will be available in November.
- While two sub-area assessments (north and south of Point Conception, California (34°27' N. lat.) were conducted in 2023, copper rockfish in California was defined as one statewide stock in Amendment 31. These two sub-area assessments have the same category designation and buffer. OFLs and ABCs from both assessments are combined for a stock-wide OFL and ABC.
- Projected 2025 OFL for sablefish based on the 2023 limited update assessment is more than triple the amount of the adopted 2024 OFL. The GFSC recommends the stock be assigned to category 1 with a default sigma of 0.5. The Council may consider a lower P* value to account for any perceived risk from having only observed the strong recruitment in 2020 and 2021, resulting in the increases observed during two years of fishery and survey data.

Harvest Specifications Technical Corrections and Inseason Adjustments – Final Action: Review of technical corrections to OFL/ABC/ACL.

The GFSC discussed the documentation of several technical corrections identified for the 2023-2024 Harvest Specifications, as described and documented in Agenda Item G.8.a, Supplemental Revised Attachment 1 and Supplemental Attachment 5. Members of the Groundfish Management Team (GMT) and biologists from the National Marine Fisheries Service (NMFS) West Coast Regional Office were on hand to provide additional details regarding the corrections. The GFSC's task was to understand the nature of the corrections and to verify that the corrections are appropriate.

In Attachment 1, five corrections were identified for various 2024 Harvest Specifications, as related to OFL and ABC values for canary, darkblotched, squarespot, and yelloweye rockfish, and the spatial allocation of ACL values for sablefish. For both canary and darkblotched rockfish, the 2019 catch-only projections were used instead of the updated 2021 catch-only projections, resulting in OFL and ABC values that were lower than the correct estimates. For squarespot rockfish, the 2021-2022 harvest specifications were repeated in 2023-2024 instead of being updated with the new stock assessment projections, resulting in OFL, ABC, and ACL values substantially higher than they should be in 2023-2024. Fortunately, squarespot is a modest component of the complex within which it is managed, consequently the overall scale of the corrections are modest. For yelloweye rockfish, the adopted 2023-24 harvest specifications were higher than they should have been, based on the rebuilding plan, thus the 2024 OFLs, ABCs and ACLs will be lower for the corrected values. For sablefish, the OFL and ABC values were correct, however the distribution fractions for allocating the ACLs north and south of 36° N. lat. were not updated with recent survey data, resulting in minor revisions to those values for 2024.

Attachment 5 describes the origin of errors made in the projection of OFLs and ABCs from the 2017 yellowtail rockfish (north of 40° 10' N. lat.) stock assessment, in which 2017 and 2018 catch estimates

were inadvertently based on default harvest control rules in the model rather than adopted ABC values for that management cycle. This contributed to other procedural errors further downstream. Correcting these errors results in a modest reduction of allowable catches.

The GFSC recommends that the SSC endorse the revised values in Revised Attachment 1 and Attachment 5 for the 2024 management cycle. The GFSC notes that the values in the review materials reflect what the correct values should have been for 2023, but there is no ability to revise these values and associated management measures, given that 2023 is nearly over. The GFSC notes that for yellowtail rockfish north of 40° 10' N. lat., a more appropriate correction could be to request a new catch-based projection using the observed catch values since the 2017 assessment was adopted. This would avoid an overestimation of actual removals relative to what the “correct” projections from the 2017 assessment would have been, which would consequently result in lower allowable catches in 2024 and beyond. The GFSC was supportive of this approach, and members of the GMT and stock assessment analysts from the NMFS Northwest Fisheries Science Center informally agreed that this approach would be both feasible and appropriate.

The GFSC, along with Council staff and members of the GMT also discussed the desire to develop better safeguards and mechanisms for avoiding such errors in future management specifications cycles. It was noted that the recently developed harvest specifications database for managing OFLs and ABCs (“spex database”) should be helpful, as will the recent addition of documentation citing specific sources of the values for review and adoption. However, additional safeguards might be possible that would further reduce the risk of propagating errors.

Stock Assessment Methodology Review – Final Topics

The GFSC discussed prioritization of potential stock assessment methodology review and workshop topics for completion in 2024. Only one proposal for a methodology review has been submitted from the Northwest Fisheries Science Center for development of ageing methods for groundfish using Fourier Transformed Near-Infrared Spectrophotometry (FT-NIRS) to increase throughput with limited personnel (Agenda Item G.3.a, Supplemental NWFSC Report 1, September 2023). The GFSC discussed whether the methods are best reviewed by the SSC as the methods and efforts to implement them are national in scale with units in each Science Center. Alternative venues for review are not immediately available, though the Committee of Age Reading Experts (CARE) has recently held a workshop on the topic. Members of CARE and ageing experts identified by the Center for Independent Experts (CIE) would provide valuable input if included on the review panel.

While the proposal calls for focus on stocks to be assessed in 2025, if a review is conducted, the GFSC recommends that the suite of species selected for the FT-NIRS methodology review reflect potential variability in ageing error with life history characteristics including flatfish, roundfish and *Sebastes spp.* In addition, a range of species that are relatively easy and difficult to age, as well as short-lived and long-lived species or other pertinent factors potentially affecting ageing error to provide meta-analytical perspective to inform which species might be viable candidates in the future. Comparisons of ageing error for traditional ageing methods and FT-NIRS should be undertaken for each species to evaluate the relative precision of the methods.

An outstanding methodology review approved for analysis in 2019 involved development of harvest control rules for elasmobranchs using a meta-analytical approach to account for their lower productivity relative to other groundfish species subject to the default SPR harvest rate of 0.5. Initial efforts did not

identify appropriate proxy species to inform a meta-analytical approach. While this remains a need for future research, sufficient data are not yet available. Additional potential future topics discussed included evaluating methods that address the potential for hook saturation in hook and line surveys and the appropriate treatment of sex ratio data associated with composition data as combined or separate for each sex. The latter would focus on analyses to evaluate when the alternatives in Stock Synthesis are most appropriate and provide criteria for application in the groundfish Terms of Reference and Accepted Practices documents. It was noted that while a workshop on hook and line surveys was conducted in 2022, Oregon Department of Fish and Wildlife's marine reserves program indices of abundance were not reviewed, though used in the Oregon black rockfish assessment. The SSC can consider whether a methodology review on that topic should be conducted in the future to provide approval for the methods to be employed in the future.

The GFSC also discussed the role of workshops in the Council process and the need for inclusion of a call for proposals for workshops as well as methodology reviews in September of odd years. Implementation of Council Operating Procedure 25 provided a process for methodology reviews, but the process for selecting workshops was not specified. Further clarification about the process for workshops would be beneficial. Workshops have been proposed in the past that were approved by the Council, but are still outstanding. These topics include considerations of how to appropriately account for closed areas in stock assessments, and another on how to incorporate remotely operated vehicle (ROV) data into stock assessments. Progress has been made in accounting for closed areas through time blocking selectivity for composition data to account for periods when age/size classes were limited and weighting indices by the proportion of habitat inside and outside closed areas. While the workshop on uses of ROV data in stock assessments may provide some benefit, a methodology review has already been conducted and the methods have been approved for use in stock assessments. An alternative workshop that could subsume this topic would be to focus on how to weight absolute abundance estimates from ROVs, the Oregon Department of Fish and Wildlife acoustic-visual survey and the swept area estimates of abundance from the West Coast Groundfish Bottom Trawl Survey relative to the remainder of the data in the stock assessment. The SSC can discuss prioritization of these workshops relative to other methodology reviews and workshops under consideration.

Appendix 1

Subcommittee Members in Attendance

Dr. Cheryl Barnes, Oregon State University/ODFW, Newport, OR

Dr. John Budrick (Chair), California Department of Fish and Wildlife, San Carlos, CA

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

Dr. Chris Free, University of California at Santa Barbara, Santa Barbara, CA

Dr. Kristin Marshall, National Marine Fisheries Service Northwest Fisheries Science Center, Seattle, WA

Dr. Tommy Moore, Northwest Indian Fisheries Commission, Forks, WA

Dr. Jason Schaffler, Muckleshoot Indian Tribe, Auburn, WA

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