



# UPDATE ON THE ACTIONS ARISING FROM THE 24<sup>TH</sup> SESSION OF THE IPHC SCIENTIFIC REVIEW BOARD (SRB024)

PREPARED BY: IPHC SECRETARIAT (22 AUGUST 2024)

#### **Purpose**

To provide the Scientific Review Board (SRB) with an opportunity to consider the progress made during the intersessional period, on the recommendations/requests arising from the SRB024.

### **BACKGROUND**

At the SRB024, the members recommended/requested a series of actions to be taken by the IPHC Secretariat, as detailed in the SRB024 meeting report (IPHC-2024-SRB024-R) available from the IPHC website, and as provided in Appendix A.

### **DISCUSSION**

During the 25<sup>th</sup> Session of the SRB (SRB025), efforts will be made to ensure that any recommendations/requests for action are carefully constructed so that each contains the following elements:

- 1) a specific action to be undertaken (deliverable);
- clear responsibility for the action to be undertaken (such as the IPHC Staff or SRB officers);
- 3) a desired time frame for delivery of the action (such as by the next session of the SRB or by some other specified date).

### RECOMMENDATIONS

That the SRB:

- 1) **NOTE** paper IPHC-2024-SRB025-03, which provided the SRB with an opportunity to consider the progress made during the inter-sessional period, in relation to the consolidated list of recommendations/requests arising from the previous SRB meeting (SRB024).
- 2) **AGREE** to consider and revise the actions as necessary, and to combine them with any new actions arising from SRB025.

## **APPENDICES**

Appendix A: Update on actions arising from the 24<sup>th</sup> Session of the IPHC Scientific Review Board (SRB024).

# **APPENDIX A**

# Update on actions arising from the 24<sup>th</sup> Session of the IPHC Scientific Review Board (SRB024)

## **RECOMMENDATIONS**

Action No.	Description	Update
SRB024– Rec.01 (para. 19)	Management strategy evaluation  The SRB NOTED that the MSE is designed to address the concerns expressed by both the Canadian and USA science advisors and RECOMMENDED that the Commission develop a timeline for adopting a MP so that realistic answers to such concerns can be provided.	Pending Update: The Commission will consider at the upcoming meeting series
SRB024– Rec.02 ( <u>para. 20</u> )	The SRB <b>RECOMMENDED</b> a separate meeting between the SRB and Commissioners to clarify the intended use of the MSE and possible processes for adopting a formal MP.	Pending Update: The Commission will consider at the upcoming meeting series
SRB024– Rec.03 (para. 22)	The SRB <b>RECOMMENDED</b> that the Commission develop a more specific and quantifiable catch objective to replace Objective c) (from AM099–Rec.02) "Optimize average coastwide TCEY".  AM099–Rec.02 (para. 76). The Commission RECOMMENDED that for the purpose of a comprehensive and intelligible Harvest Strategy Policy (HSP), four coastwide objectives should be documented within the HSP, in priority order:  a) Maintain the long-term coastwide female spawning stock biomass above a biomass limit reference point (B20%) at least 95% of the time.  b) Maintain the long-term coastwide female spawning stock biomass at or above a biomass reference point (B36%) 50% or more of the time.  c) Optimise average coastwide TCEY. d) Limit annual changes in the coastwide TCEY.	Update: The MSAB began discussions at an ad hoc working group meeting and will continue discussions at MSAB020. The Commission will consider at the upcoming meeting series.

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SRB024– Rec.04 (para. 23)	The SRB <b>RECOMMENDED</b> that the Commission consider revising Objective b) (from AM099–Rec.02) "Maintain the long-term coastwide female spawning stock biomass at or above a biomass reference point (B36%) 50% or more of the time" to utilise a lower percentile than the 50 <sup>th</sup> (median) to reflect concerns associated with the implications of low CPUE for the fishery at the 36% target for relative spawning biomass. A lower percentile better captures the role of uncertainty in this performance measure.	In progress Update: The MSAB began discussions at an ad hoc working group meeting and will continue discussions at MSAB020. The Commission will consider at the upcoming meeting series
SRB024– Rec.05 ( <u>para. 24</u> )	NOTING that the Operating Model (OM) requires a distribution of harvest across the IPHC Regulatory Areas even though distribution of the TCEY is not a recommended part of the MP, the SRB RECOMMENDED capturing uncertainty in future TCEY distribution via the approach described in <a href="IPHC-2024-SRB024-07">IPHC-2024-SRB024-07</a> , where the TCEY is distributed similar to what is done annually as part of the decision table construction process in the stock assessment.	Completed Update: The OM has been updated to capture uncertainty in the TCEY distribution. A description is provided in IPHC-2024-SRB025-07.
SRB024– Rec.06 (para. 25)	RECALLING paper IPHC-2024-SRB024-03, Appendix A, SRB023-Rec.08 (para. 27), the SRB RECOMMENDED:  a) removing "exceptional circumstance" item c because the expected timeline of stock assessments and OM updates will automatically revise biological parameters and processes; b) removing "exceptional circumstance" item b because: i. even though the operating model is an adequate representation of the coastwide dynamics and is useful for development of a coastwide MP, additional work on the regional stock dynamics needs to be done to improve correspondence with regional observations; ii. improving estimation of regional stock dynamics is a longer-term project that the Secretariat will continue to work on with input from the SRB;	Update: This has been documented in the harvest strategy policy document and will be presented to the MSAB and Commission.

	iii. as per <u>paragraph 21</u> , the SRB suggests that the annual TCEY distribution should not be included in a MP.	
SRB024- Rec.07 (para. 28)	Biology and ecology The SRB RECOMMENDED that the Secretariat examine the relationship between blood markers of stress and recapture category (recaptured vs. still at large) to determine whether blood markers may be predictive of recreational charter sector discard mortality.	Completed Update: The IPHC Secretariat has addressed this recommendation in document IPHC-2024- SRB025-09.
SRB024– Rec.08 (para. 29)	The SRB NOTED the analysis of depensation presented in paper IPHC-2024-SRB024-07, and RECOMMENDED:  a) fitting a depensatory stock-recruitment model to estimate the depensation parameter value; b) operating model stress tests in the MSE with and without depensation across a range of plausible fishing intensities.	Completed Update: These analyses are presented in document IPHC-2024-SRB025-07.
SRB024- Rec.09 (para. 30)	The SRB NOTED the Secretariat's studies of Pacific halibut stock structure based on genomics are nearing completion and suggest very limited genetic differentiation among individuals across the northeast Pacific and RECOMMENDED that:  a) the Secretariat test for stock structure using only male Pacific halibut;  b) the Secretariat prepare a manuscript for submission to a peer-reviewed scientific journal;  c) subject to the results from recommendation a (above), revise the 5-Year Program of Integrated Research and Monitoring to deprioritize stock structure studies as well as consideration of separate assessments of different stock components.	Completed Update: The IPHC Secretariat has addressed this recommendation in document IPHC-2024- SRB025-09.
SRB024– Rec.10 ( <u>para. 31</u> )	The SRB <b>NOTED</b> the preliminary results on the regional and coastwide maturity schedules using samples collected during the 2022 FISS and <b>RECOMMENDED</b> that the Secretariat continue similar analyses with samples from the reduced 2023 FISS to evaluate possible temporal patterns in maturity schedules.	Completed Update: The IPHC Secretariat has addressed this recommendation in document IPHC-2024- SRB025-09.

SRB024– Rec.11 (para. 37)	2025 FISS design evaluation The SRB RECOMMENDED that the FISS analysis estimate a "vessel captain station" offset or scalar to estimate the average difference in catch rates of these non-randomly selected stations from those for standard grid stations.	In progress Update: FISS modelling is pending final QA/QC of 2024 data.
SRB024– Rec.12 ( <u>para. 39</u> )	Updates to space-time modelling The SRB NOTED the Secretariat's thorough evaluation of the potential benefit of using the Tweedie distribution in the space-time model and RECOMMENDED not incorporating this distribution into the model unless the cross-validation statistics support its use.	Pending Update: Further Tweedie model evaluation, including cross-validation, will be undertaken following the 2024 assessment cycle and will be reported at SRB026.
SRB024– Rec.13 (para. 42)	<ul> <li>Age composition data (both fishery-dependent and fishery-independent)</li> <li>The SRB RECOMMENDED that the Secretariat investigate:</li> <li>a) Fitting a power function to the AI/CNN vs manual age determination to show how bias increases with age;</li> <li>b) Training the model with more otoliths from older age classes;</li> <li>c) Alternative objective functions that put more weight on correctly estimating ages of older individuals;</li> <li>d) The importance of different aspects of aging accuracy/bias on the stock assessment.</li> </ul>	Completed Update: a) to c) See paper IPHC- 2024-SRB025-10. d) A description of the treatment of ageing bias and imprecision in the stock assessment is included in IPHC-2024- SRB025-06.

# **REQUESTS**

Action No.	Description	Update
SRB024– Req.01 ( <u>para. 14</u> )	International Pacific Halibut Commission 5- year program of integrated research and monitoring (2022-26)  The SRB REQUESTED that the IPHC 5-year Program of Integrated Research and Monitoring be revised by SRB026 to reflect changing priorities in light of major progress on biological research and ongoing monitoring challenges.	In Progress Update: In progress for SRB026 in 2025.
SRB024- Req.02 ( <u>para. 27</u> )	Biology and ecology  The SRB NOTED the successful proposal to Alaska Sea Grant for development of genetic-	Completed Update: The IPHC Secretariat has addressed

	based aging methods and <b>REQUESTED</b> that the Secretariat articulate how these methods address specific priorities for the stock assessment and/or MSE or other IPHC goals.	this recommendation in document IPHC-2024-SRB025-09.
SRB024– Req.03 (para. 35)	2025 FISS design evaluation  The SRB REQUESTED that the Secretariat present preliminary (at SRB025) and final (at SRB026) results of MSE runs with different FISS designs to better understand the actual net cost of the survey after accounting for potential reductions in TCEY associated with the increased uncertainty from reduced FISS designs.	In Progress Update: Preliminary results are presented in IPHC-2024-SRB025-07.
SRB024– Req.04 ( <u>para. 43</u> )	Management Supporting Information The SRB REQUESTED that the Secretariat integrate FISS design considerations into the annual MSE workplan and 5-Year Program of Integrated Research and Monitoring to better quantify the value provided by the FISS.	In Progress Update: The MSE framework is able to continue to investigate FISS design considerations.