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## UPDATE ON THE ACTIONS ARISING FROM THE 15<sup>TH</sup> SESSION OF THE IPHC SCIENTIFIC REVIEW BOARD (SRB015)

PREPARED BY: IPHC SECRETARIAT (24 MAY 2020)

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### 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 SRB015.

### BACKGROUND

At the SRB015, the members recommended/requested a series of actions to be taken by the IPHC Secretariat, as detailed in the SRB015 meeting report ([IPHC-2019-SRB015-R](#)) available from the IPHC website, and as provided in [Appendix A](#).

### DISCUSSION

During the 16<sup>th</sup> Session of the SRB (SRB016), 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);
- 2) 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).

### RECOMMENDATION/S

That the SRB:

- 1) **NOTE** paper IPHC-2020-SRB016-03, 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 (SRB015).
- 2) **AGREE** to consider and revise the actions as necessary, and to combine them with any new actions arising from SRB016.

### APPENDICES

[Appendix A: Update on actions arising from the 15<sup>th</sup> Session of the IPHC Scientific Review Board \(SRB015\)](#)

**APPENDIX A**  
**Update on actions arising from the 15<sup>th</sup> Session of the IPHC Scientific Review Board (SRB015)**

**RECOMMENDATIONS**

Action No.	Description	Update
SRB015– Rec.01 ( <a href="#">para. 10</a> )	<p><b><i>Discard mortality in non-directed fisheries</i></b></p> <p>The SRB <b>RECOMMENDED</b> that the analysis of the effects of historical discard mortality in non-directed fisheries ('bycatch'), be interpreted with caution, as there are multiple methods for evaluating how bycatch in non-directed fisheries impact stock productivity and biomass over time. The estimated rates of bycatch impact on directed fishery changed over time in part due to the variability in recruitment and/or sublegal abundance relative to the vulnerable stock. The choice of the appropriate method will depend on how the results feed into management advice.</p>	<p><b>Completed:</b></p> <p>This information was provided to the Commission at AM096.</p>
SRB015– Rec.02 ( <a href="#">para. 11</a> )	<p>The SRB <b>RECOMMENDED</b> that, if a bycatch management strategy is a priority for the Commission, then the MSE process would be a more appropriate venue for evaluating methods of bycatch accounting for reasons outlined at SRB012:</p> <p><i>“NOTING the request for “replay” analyses, the SRB AGREED that “what if” questions about past behaviour are not appropriate for stock assessment models because those analyses do not adequately reflect the information available at the time or information feedbacks to future decision over time. An MSE analysis, on the other hand is specifically designed to answer “what if” questions under particular future scenarios while properly accounting for stock assessment errors in response to changing information.” (IPHC-2018-SRB012-R, para. 23)</i></p>	<p><b>Ongoing:</b></p> <p>This was a topic of discussion for the MSAB's planning for 2021+. Furthermore, the Commission noted in paragraph 83 of IPHC-2020-AM096-R “that MSE is the appropriate tool to evaluate management procedures related to discard mortality for non-directed fisheries (bycatch) because it can capture downstream effects, biological implications, and the management performance relative to objectives.”</p>
SRB015– Rec.03 ( <a href="#">para. 19</a> )	<p><b><i>Independent external peer review of the IPHC stock assessment</i></b></p> <p>The SRB <b>RECOMMENDED</b> that as was the case in the 2019 external peer review, any future external review would also benefit from an in-person review component. The biannual peer review that the SRB undertakes should continue as a complimentary element, thereby providing ongoing verification for the Commission.</p>	<p><b>Completed:</b></p> <p>This has been included in the requirements and terms of reference for future peer reviews.</p>



Action No.	Description	Update
SRB015– Rec.04 ( <a href="#">para. 34</a> )	<p><b><i>Pacific halibut stock assessment: 2019</i></b></p> <p><b>NOTING</b> the discussion of recommendations arising from the external peer review of the IPHC stock assessment (Section 4), the SRB <b>RECOMMENDED</b> that the IPHC Secretariat:</p> <ul style="list-style-type: none"> <li>a) Update data weighting for the 2019 assessment;</li> <li>b) For SRB016:               <ul style="list-style-type: none"> <li>i. evaluate the types of weightings (e.g., Dirichlet-multinomial) for compositional data;</li> <li>ii. advise on the impact of data re-weighting as new information arises. This could be more sensitive as new sex-composition data are included;</li> <li>iii. keep apprised of new software developments (e.g. CAPAM meeting in NZ) and report on potential future directions (e.g. if alternatives provide improved Bayesian integration or adaptations for simulation testing etc.).</li> </ul> </li> </ul>	<p><b>Completed:</b></p> <p>Results presented in IPHC-2020-SRB016-07.</p>
SRB015– Rec.05 ( <a href="#">para. 41</a> )	<p><b><i>Management Strategy Evaluation: Goals, Objectives and Performance Metrics</i></b></p> <p>The SRB <b>RECOMMENDED</b> that if the original objective to have annual mortality limits related to local abundances was of broad interest to the Commission, then candidate management procedures be developed and tested in which regional mortality limits are set annually in proportion to modelled survey abundance trends by IPHC Regulatory Area (noting that splitting regions into Regulatory Areas would require assumptions about within-region abundance proportions).</p>	<p><b>Ongoing:</b></p> <p>The MSAB noted this interest for evaluation at a later time in paragraph 51 of IPHC-2020-MSAB015-R: “<i>The MSAB NOTED that data-based management procedures using area-specific data (as described in paragraph 22) is of continued interest</i>”</p>
SRB015– Rec.06 ( <a href="#">para. 45</a> )	<p><b><i>Management Strategy Evaluation: Dynamic reference points</i></b></p> <p>The SRB <b>RECOMMENDED</b> that the MSAB define objectives independently of the management procedures used to achieve them and, instead, focus on the outcomes/consequences they wish to avoid (e.g. low catch, fishery closures, large drops in TCEY, public perceptions of poor stock status).</p>	<p><b>Completed:</b></p> <p>A set of objectives that are represented of outcomes/consequences have been approved by the Commission.</p>



Action No.	Description	Update
SRB015– Rec.07 ( <a href="#">para. 51</a> )	<p><b>Management Strategy Evaluation: Updates to MSE framework and closed-loop simulations</b></p> <p>The SRB <b>RECOMMENDED</b> that the Commission develop a standard criterion for achieving a limited set of (or one over-arching) objectives. This would ensure that any candidate management procedure achieves common goals with differences in trade-offs between risks and benefits. Doing so will improve the efficiency of the iterative approach that is required for MSE.</p>	<p><b>Completed:</b></p> <p>A procedure for evaluation was presented at AM096 where a standard criterion was defined for each conservation objective.</p>

### REQUESTS

Action No.	Description	Update
SRB015– Req.01 ( <a href="#">para. 25</a> )	<p><b>IPHC Fishery-independent setline survey (FISS)</b></p> <p>The SRB <b>REQUESTED</b> that the IPHC Secretariat further develop the approach in collaboration with the SRB to specifically address the issue of potential bias in the indices caused by areas that are unsampled in some years. A draft manuscript was made available, which provided details on aspects of this research, and the SRB looks forward to reviewing this prior to the SRB016, in 2020.</p>	<p><b>Completed:</b></p> <p>Inter-sessional discussion leaving to paper IPHC-2020-SRB016-05 and 06.</p>
SRB015– Req.02 ( <a href="#">para. 33</a> )	<p><b>Pacific halibut stock assessment: 2019</b></p> <p>The SRB <b>REQUESTED</b> that for SRB016 (2020), the IPHC Secretariat:</p> <ol style="list-style-type: none"> <li>a) provide a more detailed evaluation and profile of steepness values. Specifically, this should show the different data and model components that inform the steepness parameter, and also the interaction with sigmaR. This should also help inform the SRR relationship to be used in the operating model for MSE work;</li> <li>b) consider examining the relative impact of different fleets (sources of mortality) on</li> </ol>	<p><b>Completed</b></p> <p>Results presented in IPHC-2020-SRB016-07.</p>



Action No.	Description	Update
	historical SSB (e.g. set fleet x F = 0, replay, then fleet x and y, etc.).	
SRB015– Req.03 ( <a href="#">para. 36</a> )	The SRB <b>REQUESTED</b> that values related to stock status from the assessment be distinguished from MSE presentations (e.g. probabilities of avoiding a threshold based on operating model simulations).	<b>Completed:</b> All subsequent documents have followed this protocol.
SRB015– Req.04 ( <a href="#">para. 50</a> )	<b><i>Updates to MSE framework and closed-loop simulations</i></b> The SRB <b>REQUESTED</b> that the initial performance of the above proposals for candidate management procedures be evaluated and presented at the SRB016 in 2020. At that time the appropriateness of different performance measures and objectives could be more carefully evaluated.	<b>Ongoing:</b> Results from the MSE will be presented as available.