



INTERNATIONAL PACIFIC



HALIBUT COMMISSION

Reports of the Scientific Review Board (SRB)

Agenda Item 7.2

IPHC-2019-SRB014-R

IPHC-2019-SRB015-R

SRB IN 2019



Dr. Sean
Cox

May 2013-
current
(6 years)



Dr. Marc
Mangel

May 2013-
Sept 2019
(6 years)



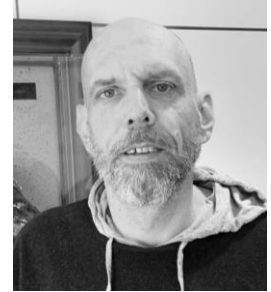
Dr. James
Ianelli

May 2013-
current
(6 years)



Dr. Kim
Scribner

July 2017-
current
(2 years)



Dr. Sven
Kupschus

June 2019-
current
(<1 year)



BACKGROUND

The 15th Session of the International Pacific Halibut Commission (IPHC) Scientific Advisory Board (SRB015) was held in Seattle, WA, U.S.A. from 24-26 September 2019.

The SRB consists of five (5) board members, required to be independent of the Contracting Parties.

- 7 Recommendations
- 4 Requests



RECOMMENDATIONS

Discard mortality in non-directed fisheries

SRB015–Rec.01 (para. 10) The SRB **RECOMMENDED** 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.



RECOMMENDATIONS

Discard mortality in non-directed fisheries

SRB015–Rec.02 (para. 11) The SRB **RECOMMENDED** 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:

“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)



RECOMMENDATIONS

Independent external peer review of the IPHC stock assessment

[SRB015–Rec.03 \(para. 19\)](#) The SRB RECOMMENDED 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.



RECOMMENDATIONS

Pacific halibut stock assessment: 2019

SRB015–Rec.04 (para. 34) **NOTING** the discussion of recommendations arising from the external peer review of the IPHC stock assessment (Section 4), the SRB **RECOMMENDED** that the IPHC Secretariat:

- a) Update data weighting for the 2019 assessment;
- b) For SRB016:
 - i. evaluate the types of weightings (e.g. Dirichlet-multinomial) for compositional data;
 - 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;
 - 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.).



RECOMMENDATIONS

Management Strategy Evaluation: Goals, Objectives and Performance Metrics

SRB015–Rec.05 (para. 41) The SRB **RECOMMENDED** 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).



RECOMMENDATIONS

Management Strategy Evaluation: Dynamic reference points

[SRB015–Rec.06 \(para. 45\)](#) The SRB **RECOMMENDED** 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).



RECOMMENDATIONS

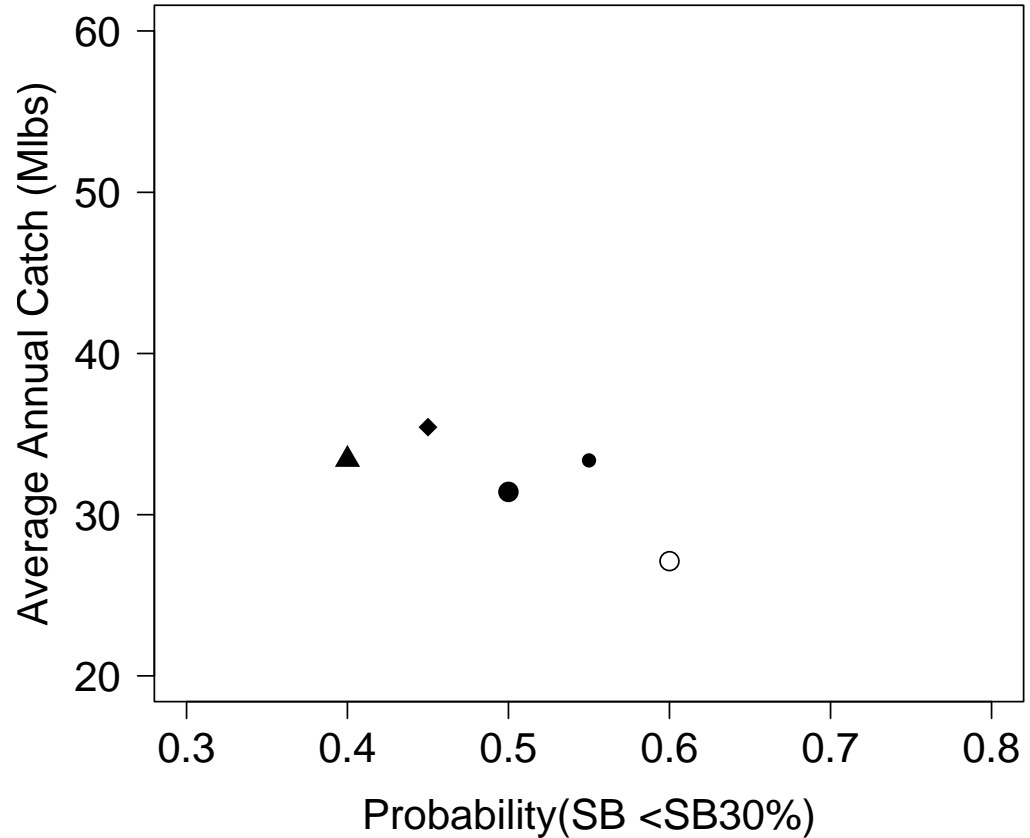
Management Strategy Evaluation: Updates to MSE framework and closed-loop simulations

[SRB015–Rec.07 \(para. 51\)](#) The SRB **RECOMMENDED** 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.



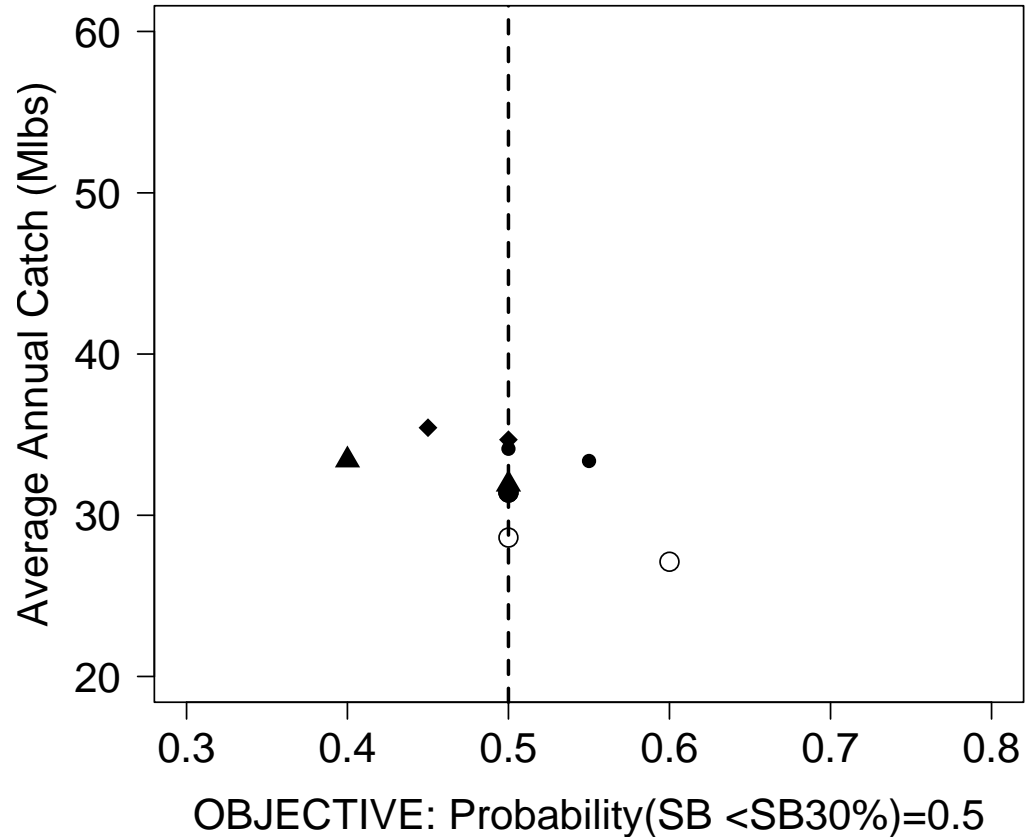
RECOMMENDATIONS

- 2-D Trade-off between SB and Catch
- How much catch is 5-10% probability worth?



RECOMMENDATIONS

- Set SB OBJECTIVE to 50%
- Tune MPs to meet OBJECTIVE
- 2-D trade-off is now 1-D...easy!



RECOMMENDATIONS

Management Strategy Evaluation: Updates to MSE framework and closed-loop simulations

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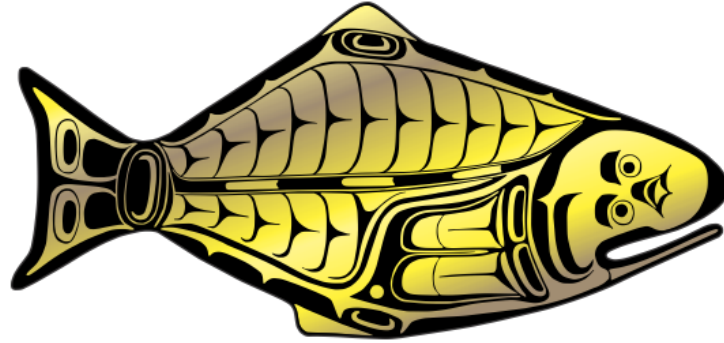


ACTION

That the Commission **NOTE** the Reports of the 14th and 15th Sessions of the IPHC Scientific Review Board (SRB014: IPHC-2019-SRB014-R; SRB015: IPHC-2019-SRB014-R), including the seven (7) recommendations to the Commission as follows.



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