OUTCOMES OF THE 96TH SESSION OF THE IPHC ANNUAL MEETING (AM096)

PREPARED BY: IPHC SECRETARIAT (14 FEBRUARY 2020)

PURPOSE

To provide the RAB with the outcomes of the 96th Session of the IPHC Annual Meeting (AM096) relevant to the mandate of the RAB.

BACKGROUND

The agenda of the Commission's Annual Meeting (AM096) included an agenda items dedicated to the IPHC's 5-year Biological and Ecosystem Science Research Program, and the Report of the RAB020.

The Report of the 96th Session of the IPHC Annual Meeting was adopted on 07 February 2020 and is available for download from the IPHC website: https://iphc.int/

DISCUSSION

During the course of the Annual Meeting (AM096) the Commission made a number of specific requests and recommendations regarding the IPHC research programs. Relevant sections from the report of the meeting are provided in Appendix A for the RAB's consideration.

The Commission also approved a three-year calendar of IPHC meetings, which includes the following planned dates for RAB meetings, all currently planned to be held in the IPHC Offices in Seattle, USA.

RAB No.	Date	Location
RAB021	26 Feb 2020	Seattle, WA, U.S.A.
RAB022	10 Feb 2021	Seattle, WA, U.S.A.
RAB023	9 Feb 2022	Seattle, WA, U.S.A.

RECOMMENDATION

That the RAB:

1) **NOTE** paper IPHC-2020-RAB021-04 which provides the outcomes of the 96th Session of the IPHC Annual Meeting (AM096) relevant to the mandate of the RAB.

APPENDICES

Appendix A: Outcomes of the AM096 relevant to the mandate of the RAB

APPENDIX A
Outcomes of AM096 relevant to the mandate of the RAB

(paragraph numbering reflects the AM096 report)

7. IPHC 5-YEAR RESEARCH PROGRAM

7.1 IPHC 5-year Biological & Ecosystem Sciences research program: update

63. The Commission **NOTED** paper IPHC-2020-AM096-11 which provided a description of progress on Biological and Ecosystem Science Research by the IPHC Secretariat.

64. The Commission **NOTED** the primary biological research activities at the IPHC that follow Commission objectives are identified and described in the IPHC 5-Year Biological and Ecosystem Science Research Plan (2017-21). These activities are summarized in five broad research areas designed to provide inputs into stock assessment and the management strategy evaluation processes, as follows:

    1) **Migration**. Studies are aimed at further understanding reproductive migration and identification of spawning times and locations as well as larval and juvenile dispersal.

    2) **Reproduction**. Studies are aimed at providing information on the sex ratio of the commercial catch and to improve current estimates of maturity in female Pacific halibut.

    3) **Growth and Physiological Condition**. Studies are aimed at describing the role of some of the factors responsible for the observed changes in size-at-age and to provide tools for measuring growth and physiological condition in Pacific halibut.

    4) **Discard Mortality Rates (DMRs) and Survival**. Studies are aimed at providing updated estimates of DMRs in both the longline and the guided recreational fisheries.

    5) **Genetics and Genomics**. Studies are aimed at describing the genetic structure of the Pacific halibut population and at applying genetics and genomics to improve our current understanding of migration and distribution.

65. The Commission **NOTED** the Pacific halibut workshop co-organized by the IPHC Secretariat within the 2019 PICES Annual Meeting to bring together scientists from countries invested in the Pacific halibut resource and to establish plans to engage in international data sharing and collaborative research activities. These efforts will be continued with the organisation of a second Pacific halibut workshop that will be held at the 2020 PICES Annual Meeting and that will include topics related to climate variability and potential changes in the distribution of flatfish species in the North Pacific Ocean.

8. REPORT OF THE 20TH SESSION OF THE IPHC RESEARCH ADVISORY BOARD (RAB020)

66. The Commission **NOTED** the Report of the 20th Session of the IPHC Research Advisory Board (RAB020) (IPHC-2019-RAB020-R) which was presented by the Co-Chairperson, Dr Josep Planas.

67. The Commission **NOTED** that the RAB020 made two (2) recommendations to the Commission as follows:

IPHC Closed Area

RAB020-Rec.01 (para. 10) *The RAB AGREED that the IPHC Closed Area (Pacific Halibut Fishery Regulations 2019, Sect. 11) is not currently meeting its intended objective of protecting juvenile Pacific halibut when it is open to non-directed fisheries, and RECOMMENDED, in coordination with the NPMFC, that the IPHC Secretariat examine alternative management regimes for the Closed Area, and for these to be presented at the 96th Session of the IPHC Annual Meeting (AM096) in 2020.*

Hook standardisation

RAB020-Rec.02 (para. 33) *The RAB RECOMMENDED that the IPHC consider standardising the FISS to use a particular model hook and to encourage each vessel to begin its FISS contract work each year with all new hooks.*

68. The Commission **CONSIDERED** the recommendations made by the RAB020 and **AGREED** to take them into consideration when deliberating on relevant agenda items throughout the meeting.

7. REPORTS OF THE 14TH AND 15TH SESSIONS OF THE IPHC SCIENTIFIC REVIEW BOARD (SRB014 AND SRB015)

69. The Commission **NOTED** the Reports of the 14th and 15th Sessions of the IPHC Scientific Review Board (SRB014 - IPHC-2019-SRB014-R; SRB015 - IPHC-2019-SRB015-R) which were presented by the Chairperson, Dr Sean Cox (Simon Fraser University, Vancouver, Canada), one of the five (5) SRB members.

70. The Commission **CONSIDERED** the recommendations made by the SRB015 and **AGREED** to take them into consideration when deliberating on relevant agenda items throughout the meeting.

71. The Commission **NOTED** that the SRB015 made seven (7) recommendations to the Commission as follows:

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.*

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)

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.*

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.).

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).*

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).*

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.*

72. The Commission **NOTED** the departure of Dr Marc Mangel from the SRB in 2019 after completing six (6) years of outstanding contributions to IPHC scientific activities. As a founding member of the Board, Dr Mangel's contributions and advice have played a very large part in shaping IPHC science.

73. The Commission **CONSIDERED** the need to hold a joint meeting with the SRB members once a year to discuss and highlight matters of importance for Commissioners, and for this to be explored as a possibility.

74. The Commission **NOTED** that the IPHC Secretariat will be making a call for expressions of interest to replace applicable SRB members in the coming months. This will involve both a public announcement, and a targeted recruitment based on the expertise needs of the board.