

IPHC-2020-IM096-04

Report of the IPHC Secretariat (2020): Draft

PREPARED BY: IPHC SECRETARIAT (D. WILSON, 16 OCTOBER 2020)

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1. Purpose

To provide the Commission with a preliminary update on the activities of the IPHC Secretariat in 2020, not already contained within other papers before the Commission.

2. STAFFING IMPROVEMENTS DURING 2020

2.1. REGULAR FULL-TIME POSITIONS

FT Arrivals	Туре	Hire Date	Status	Position Title
Ms Erin Salle	Regular full-time	23 Mar 2020	Active	Administrative Specialist
Mr Rob Tynes	Regular full-time	01 Apr 2020	Active	Information Technology Specialist
Mr Nicholas Wilson	Regular full-time	08 Apr 2020	Active	Accounting Specialist
Ms Tara Coluccio	Regular full-time	26 Jun 2020	Active	Administrative Specialist

2.2. TEMPORARY FULL-TIME POSITIONS

Temporary full-time positons					
Temp/contract	Туре	Status	Position Title		
<u>Ms Taika</u> Gebretsadik	Temporary full-time	17 Aug 2020	Active	Senior Staff Accountant	

2.3. DEPARTURES

FT Departure						
J. Walker	Regular full-time	16 Aug 2006	Departed 02 Mar 2020	Information Technology Specialist		
C. Wikowski	Regular full-time	03 Jan 2018	Departed 04 Mar 2020	Setline Survey Specialist		
S. Keith	Regular full-time	21 Nov 2011	Departed 31 Mar 2020	Assistant Director		

1. IPHC Internship program: 2020

The IPHC funds one full-time intern each summer. In 2020, Mr Adam Ziegler from Stonehill College, Easton, MA, USA, joined the IPHC. Adam worked on the sex-ratio analysis of 2019 commercial Pacific halibut, *Hippoglossus stenolepis*, in IPHC Convention Waters

2. IPHC MERIT SCHOLARSHIP FOR 2020

The IPHC funds several Merit Scholarships to support university, technical college, and other post-secondary education for students from Canada and the United States of Amercia who are connected to the Pacific halibut fishery. Generally, a single new scholarship valued at US\$4,000 per year is awarded every two years. The scholarships are renewable annually for the normal

four-year period of undergraduate education, subject to maintenance of satisfactory academic performance.

A four (4) person IPHC Merit Scholarship Panel reviews applications and determines recipients based on academic qualifications, career goals, and relationship to the Pacific halibut industry.

In 2020, the IPHC Merit Scholarship was awarded to Mr Hahlen **Behnken-Barkhau** (Whitman College).

The list of current recipients and their expected years of receipt are provided below. Note that in 2016, the IPHC Merit Scholarship shifted from an award of US\$2,000 per year for four years, with a new recipient selected each year, to an award of US\$4,000 per year for four years, with a new recipient selected every other year.

Name	2018	2019	2020	2021	2022	2023
Kaia Dahl (Petersburg, AK, USA)	\$4,000	\$4,000	\$4,000	\$4,000		-
Hahlen Behnken-Barkhau (Sitka, AK, USA)	-	-	\$4,000	\$4,000	\$4,000	\$4,000

3. MEETINGS OF THE COMMISSION AND SUBSIDIARY BODIES DURING 2020

Meeting	No.	Date	Location
Annual Meeting (AM)	96 th	3-7 Feb	Anchorage, USA
Finance and Administration Committee (FAC)	96 th	3 Feb	Anchorage, USA
Conference Board (CB)	90 th	4-5 Feb	Anchorage, USA
Processor Advisory Board (PAB)	25 th	4-5 Feb	Anchorage, USA
Research Advisory Board (RAB)	21 st	26 Feb	Seattle, USA
Management Strategy Advisory	15 th	11-14 May	Electronic
Board (MSAB)	16 th	19-22 Oct	Electronic
Scientific Review Board (SRB)	16 th	23-25 June	Electronic
	17 th	22-24 Sept	Electronic
Work Meeting (WM)		16-17 Sept	Electronic
Interim Meeting (IM)	96 th	18-19 Nov	Electronic

4. IPHC Pacific Halibut Fishery Regulations (2020)

4.1. IPHC FISHERY REGULATIONS ADOPTED IN 2020

In 2020, the Commission adopted **six (6)** fishery regulations/amendments in accordance with Article III of the Convention, as follows:

1) IPHC Fishery Regulations: Fishery Limits (Sect. 4)

The Commission **NOTED** and **ADOPTED** regulatory proposal <u>IPHC-2020-AM096-PropA1</u>, which aimed to improve clarity and transparency of fishery limits in the IPHC Fishery

Regulations, and to provide the framework for mortality limits adopted by the Commission. (para. 90)

The Commission **ADOPTED** the distributed mortality limits for each Contracting Party, by IPHC Regulatory Area, (<u>Table 6</u>) and sector, as provided in <u>Appendix IV</u>. [**Canada**: In favour=2, Against=1][**USA**: In favour=2, Against=1] (<u>para. 91</u>)

Table 6. Adopted TCEY mortality limits for 2020

IPHC Regulatory Area	Mortality limit (TCEY) (mlb)	Mortality limit (TCEY) (metric tonnes)
2A	1.65	748
2B	6.83	3,098
2C	5.85	2,654
3A	12.20	5,534
3B	3.12	1,415
4A	1.75	794
4B	1.31	594
4CDE	3.90	1,769
Total (IPHC Convention Area)	36.60	16,601

The Commission ADOPTED: (para. 97)

- a) a coastwide mortality limit (TCEY) of 36.6 million pounds; and
- a fixed TCEY for IPHC Regulatory Area 2A of 1.65 million pounds is intended to apply for a period from 2019-2022, subject to any substantive conservation concerns; and
- c) a share-based allocation for IPHC Regulatory Area 2B. The share will be defined based on a weighted average that assigns 30% weight to the current interim management procedure's target TCEY distribution and 70% on 2B's recent historical average share of 20%. This formula for defining IPHC Regulatory Area 2B's annual allocation is intended to apply for a period of 2019 to 2022. For 2020, this equates to a share of 18.2% before accounting for U26; and
- d) an accounting for some impacts of U26 non-directed discard mortality from US IPHC Regulatory Areas on available harvest in IPHC Regulatory Area 2B. The accounting increases the 2B TCEY by 50% of the estimated yield lost due to U26 non-directed discard mortality in Alaskan waters and is intended to apply for the period 2020-2022. For 2020 this calculation equates to 0.21 million pounds and reduces all Alaskan IPHC Regulatory Area TCEYs to maintain a coastwide TCEY of 36.6 million pounds; and
- e) the use of a rolling three-year average for projecting non-directed fishery discard mortality by IPHC Regulatory Area; this is also intended to apply for a period of 2020 to 2022.

2) IPHC Fishery Regulations: Commercial fishing periods (Sect. 9)

The Commission **NOTED** and **ADOPTED** regulatory proposal <u>IPHC-2020-AM096-PropA2</u>, which specified fishing periods for the commercial Pacific halibut fisheries. (<u>para. 98</u>)

Commercial fishing periods

The Commission **ADOPTED** fishing periods for 2020 as provided below, thereby superseding the relevant portions of Section 9 of the IPHC Pacific halibut fishery regulations and specifying that: (para. 100)

- f) All commercial fishing for Pacific halibut in all IPHC Regulatory Areas may begin no earlier than 14 March and must cease on 15 November:
- g) The IPHC Regulatory Area 2A non-tribal directed commercial fishery may take place during specific fishing periods of 3 days' duration, beginning on the fourth Monday in June, with fishing period limits (vessel quota) to be determined and communicated by the IPHC Secretariat.

3) IPHC Fishery Regulations: minor amendments

The Commission **NOTED** and **ADOPTED** regulatory proposal <u>IPHC-2020-AM096-PropA3</u>, which proposed amendments to ensure clarity and consistency in the IPHC Fishery Regulations, with minor modification as identified during AM096. (<u>para. 101</u>)

4) IPHC Fishery Regulations: Vessel Clearance in IPHC Regulatory Area 4 (Sect. 16)

The Commission **NOTED** and **ADOPTED** regulatory proposal <u>IPHC-2020-AM096-PropA4</u>, which proposed amendments to address the need for clearances when a National Oceanic and Atmospheric Administration (NOAA) Fisheries observer or electronic monitoring device is present. (<u>para. 102</u>)

5) Charter management measures in IPHC Regulatory Areas 2C and 3A

The Commission **NOTED** and **ADOPTED** regulatory proposal <u>IPHC-2020-AM096-PropB1</u>, which proposed IPHC Regulation changes for charter recreational Pacific halibut fisheries in IPHC Regulatory Areas 2C and 3A, in order to achieve the charter Pacific halibut allocation under the North Pacific Fisheries Management Council's (NPFMC) Pacific halibut Catch Sharing Plan. (para. 105)

6) Revising definition of IPHC Regulatory Area 2A-1

The Commission **NOTED** and **ADOPTED** regulatory proposal <u>IPHC-2020-AM096-PropB2</u>, which proposed an update to IPHC regulatory language regarding the usual and accustomed fishing areas of Indian tribes with treaty fishing rights to Pacific halibut, with the addition of the geographic reference for Point Chehalis (46° 53.30' N. lat.). (para. 106)

4.2. DEFERRED REGULATORY PROPOSALS

4.2.1. IPHC Fishery Regulations: IPHC Closed Area (Sect. 11)

1) The Commission NOTED and DEFERRED regulatory proposal <u>IPHC-2020-AM096-PropA5</u>, which proposed amendments to consider the intent and purpose of the IPHC Closed Area, as defined in the Pacific Halibut Fishery Regulations (2019) Section 11,, which currently excludes directed Pacific halibut fishing, but allows other forms of

mortality such as trawling, and to propose the removal of the IPHC Closed Area from the IPHC Pacific Halibut Fishery Regulations.

5. Interactions with Contracting Parties

5.1. CONTRACTING PARTY REPORTS

In 2020, the IPHC Secretariat has engaged agency representatives from both Contracting Parties regarding more comprehensive and timely reporting of all forms of Pacific halibut removals and directed commercial fishery revenue data. The IPHC Secretariat is working to identify and address data gaps in reporting.

5.2. CANADA

5.2.1. Fisheries and Oceans Canada (DFO)

1) Areas of conservation concern

The IPHC Secretariat continues to work with Fisheries and Oceans representatives to address gaps in coverage for the IPHC Fishery-Independent Setline Survey (FISS) in the IPHC Convention Area. An application was submitted again in 2020 to fish the FISS stations within the Marine Protected Areas in Canadian waters, which was denied.

5.2.2. Halibut Advisory Board (HAB)

a) The Executive Director participates as a HAB member, with other Secretariat staff in support. This relationship is expected to continue into the future given the HAB's contributions to the Canadian decision-making process.

5.3. United States of America

5.3.1. NORTH Pacific Fishery Management Council (NPFMC)

1) Areas of conservation concern

The IPHC Secretariat worked with USA agency staff to address gaps in coverage for the Fishery-Independent Setline Survey (FISS) in IPHC Convention Waters. An application was submitted to fish the FISS stations within the Glacier Bay National Park, which was approved, allowing these stations to be fished.

2) Abundance-Based Management of Pacific halibut bycatch (ABM)

The NPFMC's Abundance-Based Management Working Group (ABMWG) continued its work, with participation of the IPHC Secretariat. The Commission has supported the development of ABM due to its potential effect on the directed Pacific halibut fisheries.

At its January/February 2020 meeting, the NPFMC revised the ABM motion (<u>Council D4 Motion AM80</u>) for the forthcoming Pacific halibut ABM PSC limit analysis and added a second motion (<u>Council D4 Motion PSC Limits</u>) containing additional options to consider in a discussion paper.

ABM was a priority agenda at the NPFMC October 2020 meeting. The Scientific and Statistical Committee (SSC) discussed the operating model and results from the simulation analysis.

However, <u>a misspecification</u> of directed commercial mortality in the model for the year 2019 was found which likely had an important effect because results for the directed commercial fisheries were presented relative to the 2019 mortality. With little time to review the updated results before the end of the SSC meeting, the SSC unanimously decided to not review the results at that time. The SSC did, however, provide advice on improvements to the model assumptions and analysis. The Council discussed the outcomes extensively and moved to a new approach in <u>Council C6 Motion</u> as well as updating the purpose and need. The motion specifies four alternatives for analysis with one being status quo and the other three variations of a lookup table incorporating the two indices calculated from the FISS data and the EBS trawl survey data. Four options were specified that would reduce variability in the annual PSC limits and introduce performance standards that may increase or decrease the PSC limit depending on percent usage of the limit.

The Council's three-meeting outlook notes an initial review of Pacific halibut ABM analysis in April 2021.

5.3.2. Pacific Fishery Management Council (PFMC)

1) IPHC Regulatory Area 2A Catch Sharing Plans and in-season management

The IPHC Secretariat collaborated with NOAA Fisheries and State agencies to conduct inseason management of the various fisheries identified in the IPHC Regulatory Area 2A Catch Sharing Plan. Date and possession restrictions were adjusted in season among the various fisheries to meet identified fishery needs while attaining and remaining within the applicable catch limits. Estimates of removals for 2020 will be presented during Agenda Item 5 on fishery statistics. The IPHC Secretariat noted that the recreational fishery sub-area — California remained open for four additional days when it was determined the fishery limit had been exceeded and against the Secretariat recommendation. This resulted in an over-catch of ~9%.

2) IPHC Regulatory Area 2A non-tribal directed commercial fishery

During 2019 and 2020, in response to letters exchanged between the Commission and the PFMC, and the Commission's desires expressed at AM095 and AM096, discussions included shifting responsibility for management of Pacific halibut fisheries in IPHC Regulatory Area 2A from the IPHC to domestic agencies, as is the case in all other IPHC Regulatory Areas.

At its June 2019 and June 2020 meetings, the PFMC affirmed its commitment to pursue domestic management of the Pacific halibut fisheries in IPHC Regulatory Area 2A before the 2021 fishing period. The PFMC may then later investigate other potential management options for the fishery. Further discussion of the way ahead is expected at the PFMC's September 2020 meeting.

The PFMC noted its commitment to the transition of management in its <u>letter to the IPHC of 6</u> <u>September 2019</u>. The Commission responded in its letter to the PFMC of October 2019, offering to support the transition process and expressing its desire to complete the transition as expeditiously as possible.

2020 Update: At its September 2020 meeting, the Council further considered the transition of IPHC Regulatory Area 2A Fishery Management, with the intention of adopting preliminary preferred alternatives. Reference Council paper and presentation provided in paper IPHC-2020-IM096-INF02. At the September PFMC meeting, the final motion on the matter was as follows:

Transition of Area 2A Fishery Management The Council adopted for public review the following as preliminary preferred alternatives:

- 1. 4.1.2 Alternative 2: Consider the directed fishery framework during the CSP process in September and November, including any guidance for vessel limits and inseason changes for NMFS implementation.
- 2. 4.2.1 Alternative 2: Issue permits for all Area 2A halibut non-Indian fisheries (commercial directed, incidental salmon troll, incidental sablefish, and recreational charter).
- 3. 4.2.2 Alternative 2: Allow NMFS to determine the appropriate application deadlines for all commercial halibut applications, set to coincide with Council meetings and NMFS processing time.
- 4. 4.2.5 Alternative 1: Status quo (revised). Require proof of permit to be onboard fishing vessel and made readily available upon request, regardless of the type of permit (e.g., paper or electronic). NMFS to provide access to permit in a printable format or send paper copy directly to the participant.

The PFMC will further consider the above alternatives during its November Council meeting (13 and 16 November 2020).

6. IPHC COMMUNICATIONS AND OUTREACH

6.1. IPHC Website

The IPHC Secretariat continues to develop new ways to display data and statistics for our stakeholders and other interested parties, focusing particularly on the addition of timely and useful visual displays such as interactive maps for the IPHC Fishery-Independent Setline Survey (FISS) data, and commercial fishery data pages and catch tables. https://www.iphc.int/www.iphc.int/data

6.2. Annual Report

The 2019 Annual Report (1 January to 31 December 2019) was published on 2 March 2020 and is available for download from the IPHC website at the following link: https://www.iphc.int/uploads/pdf/ar/iphc-2020-ar2019-r.pdf

We continue to implement an accelerated production timeline for the IPHC Annual Report, thereby ensuring users of the report receive the summary information as close to the relevant year as possible. Continued feedback on the content, format and presentation of the Annual Report is welcome.

6.3. IPHC Circulars and Media Releases

<u>IPHC Circulars</u> continue to serve as the formal inter-sessional communication mechanism for the Commission. Circulars are used to announce meetings of the Commission and its subsidiary bodies, as well as inter-sessional decisions made by the Commission.

https://www.iphc.int/library/documents/category/circulars

<u>IPHC Media Releases</u> are the primary informal communication with all stakeholders. In some cases, these will duplicate the formal communications provided in IPHC Circulars.

https://www.iphc.int/library/documents/category/media-releases

Stakeholders are encouraged to request that their email addresses be added to IPHC distribution lists at the following link: https://www.iphc.int/form/media-and-news

6.4. IPHC External engagement

There is a considerable amount of effort put into public outreach, attending conferences and meetings that enhance knowledge, contributing expertise to the broader scientific community through participation on boards and committees, and seeking further education and training. In 2020, much of this engagement took place electronically.

6.4.1. Committees and external organisation appointments

North America:

Technical Subcommittee (TSC) of the Canada-United States Groundfish Committee
 Dr. Josep Planas & Ms. Lara Erikson

Canada:

1) Halibut Advisory Board (Canada) - Dr. David Wilson

United States of America:

- 1) Bering Sea/Aleutian Islands Plan Team Dr. Allan Hicks
- 2) Bering Sea Fishery Ecosystem Plan Team Dr. Ian Stewart
- 3) North Pacific Fishery Management Council (NPFMC) Abundance-based Management Working Group Dr. Allan Hicks
- 4) NPFMC Scientific and Statistical Committee Dr. Ian Stewart
- 5) NPFMC Trawl Electronic Monitoring Committee Ms. Huyen Tran
- 6) North Pacific Research Board Science Panel Dr. Josep Planas
- 7) Observer Science Committee (NOAA-Alaska) Dr. Ray Webster
- 8) Interagency electronic reporting system for commercial fishery landings in Alaska (eLandings) Steering Committee Ms. Kamala Carroll and Ms. Huyen Tran
- 9) Interagency electronic reporting system for commercial fishery landings in Alaska (eLandings) IT Steering Committee Ms. Huyen Tran and Mr. Afshin Taheri
- 10) Interagency electronic reporting system for commercial fishery landings in Alaska (eLandings) Interagency Coordination Committee (ICC) Ms. Lara Erikson and Ms. Huyen Tran

6.4.2. Conferences and symposia (chronological order)

- 2020 Alaska Marine Science Symposium, 27-31 January, Anchorage, AK, USA Dr. Josep Planas, Ms. Dana Rudy, Mr. Andy Jasonowicz
- 2) 2020 Ocean Sciences Meeting, 16 21 February, San Diego, CA, U.S.A Mrs. Lauri Sadorus
- 3) AFSC 2nd Workshop on Integrating ecosystem and socioeconomic information into the groundfish/crab stock assessments Ecosystem and Socioeconomic Profiles, 10-12 March, Seattle, WA Dr. Ian Stewart

6.4.3. Outreach

1) Booth at the Pacific Northwest Sportsman's Show, 5-9 February, Portland, OR, USA – Caroline Robinson, Kimberly Sawyer, Robert Tobin and Andy Jasonowicz

6.4.4. Academic affiliations 2020

Affiliate Faculty:

- 1) Dr. Allan Hicks University of Washington School of Aquatic and Fishery Sciences, Seattle, WA, USA
- 2) Dr. Ian Stewart University of Washington School of Aquatic and Fishery Sciences, Seattle, WA, USA
- 3) Dr. Josep Planas Alaska Pacific University, Anchorage, AK, USA

Graduate student committee member:

- 1) Dr. Allan Hicks University of Massachusetts School for Marine Science & Technology, Dartmouth, MA, USA
- 2) Dr. Allan Hicks University of Washington School of Aquatic & Fishery Sciences, Seattle, WA, USA
- 3) Dr. Ian Stewart Alaska Pacific University, Anchorage, AK, USA
- 4) Dr. Ian Stewart University of Washington School of Aquatic & Fishery Sciences, Seattle, WA, USA
- 5) Dr. Josep Planas Alaska Pacific University, Anchorage, AK, USA

7. IPHC Publications in 2020

7.1. Published peer-reviewed journal papers

- Forrest RE, **Stewart IJ**, Monnahan CC, Bannar-Martin KH and Lacko LC (2020) Evidence for rapid avoidance of rockfish habitat under reduced quota and comprehensive at-sea monitoring in the British Columbia Pacific Halibut fishery. Can J Fish Aquat Sci 77:1409-1420.
- **Hutniczak** B, Meere F (2020) International Co-operation as a Key Tool to Prevent IUU Fishing and Disputes over It. International Community Law Review 22:439–448.
- Nielsen JK, Mueter FJ, Adkison MD, **Loher T**, McDermott SF, Seitz AC (2020) Potential utility of geomagnetic data for geolocation of demersal fishes in the North Pacific Ocean. Animal Biotelemetry. 8:17. https://doi.org/10.1186/s40317-020-00204-0
- Punt, AE, Tuck G, Day J, Canales M, Cope JM, de Moor C, De Oliveira JAA, Dickey-Collas M, Elvarsson B, Haltuch MA, Hamel OS, **Hicks AC**, Legault CM, Lynch PD, Wilberg MJ (2020). When are model-based stock assessments rejected for use in management and what happens then? Fisheries Research 224: https://doi.org/10.1016/j.fishres.2019.105465
- van Helmond ATM, Mortensen LO, Plet-Hansen KS, Ulrich C, Needle CL, Oesterwind D, Kindt-Larsen L, Catchpole T, Mangi S, Zimmermann C, Olesen HK, Bailey N, Bergsson H, Dalskov J, Elson J, Hosken M, Peterson L, McElderry H, Ruiz J, Pierre JP, **Dykstra C**, Poos JJ. (2020). Electronic monitoring in fisheries: Lessons from global experiences and future opportunities. Fish & Fisheries 21:162–189.
- Webster RA, Soderlund E, Dykstra CL and Stewart IJ (2020) Monitoring change in a dynamic environment: spatio-temporal modelling of calibrated data from different types of fisheries surveys of Pacific halibut. Can J Fish Aquat Sci 77(8):1421-1432.

7.2. In press peer-reviewed journal papers

- Fish T, Wolf N, Harris BP, **Planas JV** (*In press*) A comprehensive description of oocyte developmental stages in Pacific halibut, *Hippoglossus stenolepis*. J Fish Biol. https://doi.org/10.1111/jfb.14551
- Lomeli MJM, Wakefield WW, Herrmann B, **Dykstra CL**, **Simeon A**, **Rudy DM**, **Planas JV** (*In press*) Use of Artificial Illumination to Reduce Pacific Halibut Bycatch in a U.S. West Coast Groundfish Bottom Trawl. *Fisheries Research*.
 - https://doi.org/10.1016/j.fishres.2020.105737
- **Sadorus LL**, Goldstein E, **Webster RA**, Stockhausen WT, **Planas JV**, Duffy-Anderson J (2020). Multiple life-stage connectivity of Pacific halibut (*Hippoglossus stenolepis*) across the Bering Sea and Gulf of Alaska. *Fisheries Oceanography.*

7.3. Submitted peer-review journal papers – In review

- Kroska AC, Wolf N, **Planas JV**, Baker MR, Smeltz TS, Harris BP (*In review*) Controlled experiments to explore the use of a multi-tissue approach to characterizing stress in wild-caught Pacific halibut (*Hippoglossus stenolepis*). Conservation Physiology.
- **Stewart IJ**, **Hicks AC** and **Carpi P** (*In review*) Fully subscribed: evaluating yield trade-offs among fishery sectors utilizing the Pacific halibut resource. *Fisheries Research*.
- **Stewart IJ**, Scordino JJ, Petersen JR, Wise AW, Svec CI, Buttram RH, Monette JL, Gonzales MR, Svec R, Scordino J, Butterfield K, Parker W and Buzzell LA (*In review*) Out with the new and in with the old: reviving a historical technology to meet modern challenges. *Fisheries*.

7.4. <u>In preparation</u> peer-reviewed journal articles which are likely to be submitted within the next 2-3 months

- **Planas JV, Simeon A, Jasonowicz A, Rudy D**, Timmins-Schiffman E, Nunn BL, Kroska A, Wolf N, Hurst TP (*In preparation*). Physiological signatures of temperature-induced growth manipulations in white skeletal muscle of juvenile Pacific halibut (*Hippoglossus stenolepis*). *Physiological Genomics*.
- **Sadorus L, Webster R** and Sullivan M (*In preparation*) Environmental conditions on the Pacific halibut (*Hippoglossus stenolepis*) fishing grounds obtained from a decade of coastwide oceanographic monitoring, and practical applications of the data in a spatio-temporal assessment model. *Fisheries Research*.
- Simeon A, Stewart IJ, Loher T, Erikson L, McCarty O, Dykstra C, Drinan DP, Hauser L, Planas JV (*In preparation*). Sex marking at sea by the directed Pacific halibut fleet. *Fisheries Research*.
- Taylor IG, Doering KL, Johnson KF, Wetzel CR and **Stewart IJ** (*In preparation*) Beyond visualizing catch-at-age models: lessons learned from the r4ss package about software to support stock assessments. *Fisheries Research*.

8. RECOMMENDATION

That the Commission:

1) **NOTE** paper IPHC-2020-IM096-04 which provides the Commission with a preliminary update on activities of the IPHC Secretariat in 2020 not detailed in other papers before the Commission.

APPENDICES

Nil.