



INTERNATIONAL PACIFIC

Agenda Item F.1.a

Supplemental IPHC PPT 1

March 2020



HALIBUT COMMISSION

Results of the 96th Session of the IPHC Annual Meeting (AM096)

PFMC meeting
Agenda item F1
4 March 2020

96th IPHC Annual Meeting (AM096)

- 3-7 Feb 2020 in Anchorage, Alaska
- Open to public and webcast
- AM096 webpage:
<https://www.iphc.int/venues/details/96th-session-of-the-iphc-annual-meeting-am096>



INTERNATIONAL PACIFIC
HALIBUT COMMISSION

IPHC-2020-AM096-R

Report of the 96th Session of the IPHC Annual Meeting (AM096)

Anchorage, Alaska, USA, 3-7 February 2020

Commissioners

Canada	United States of America
Paul Ryall	Chris Oliver
Neil Davis	Robert Alverson
Peter DeGreef	Richard Yamada

Executive Director

David T. Wilson, Ph.D.



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IPHC

Results of AM096

- Stock assessment
- Harvest decisions
- Fishing periods
- Research plans
- Management strategy evaluation (MSE)
- Looking ahead



Stock assessment modelling for 2019

- All aspects of data and models revisited
 - New data
 - Modelled survey index updates (increased precision)
 - New commercial sex-ratio data
 - Model structure improved to use commercial sex-ratio data
- Two-part 2019 review process
 - Independent expert
 - IPHC Scientific Review Board

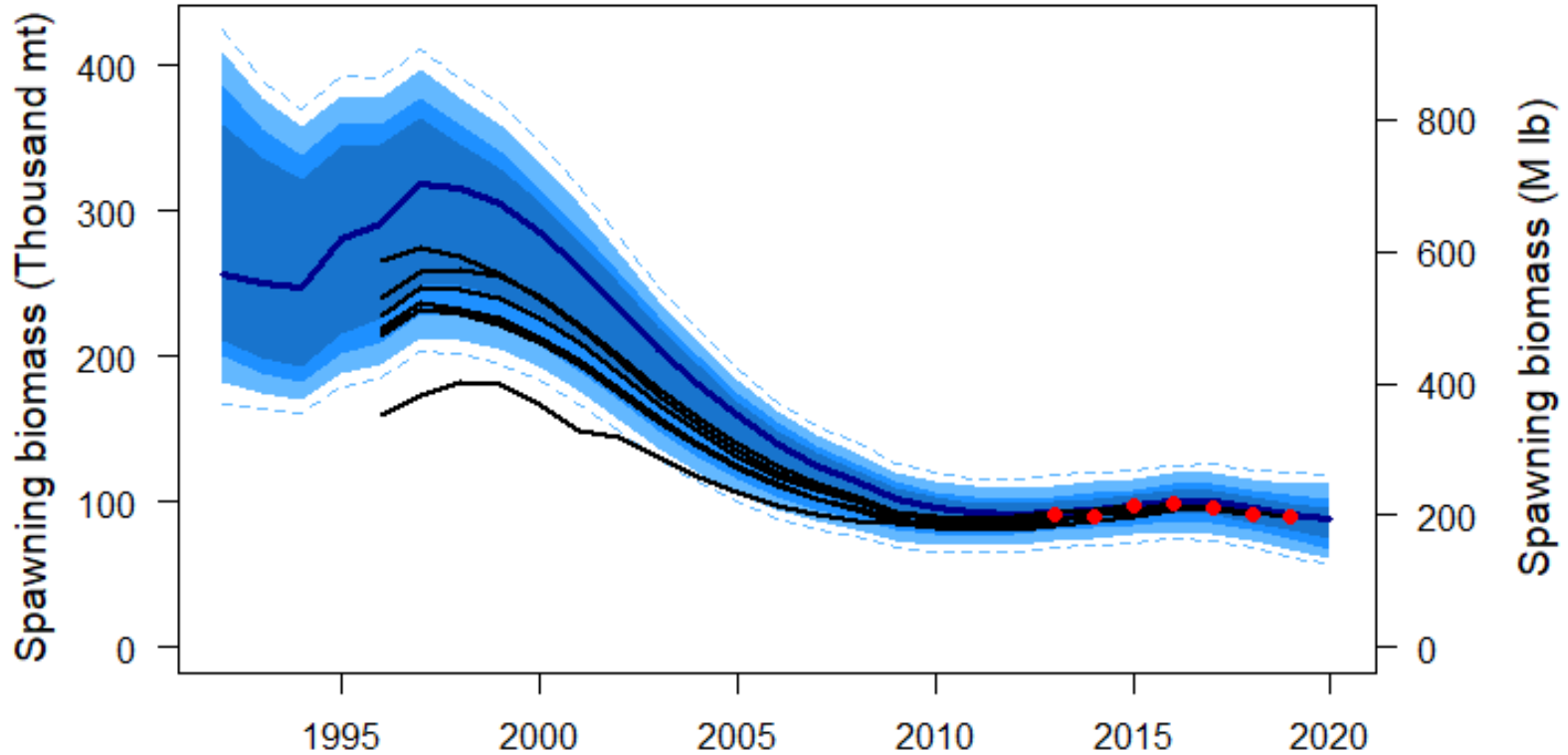


2019 stock assessment summary

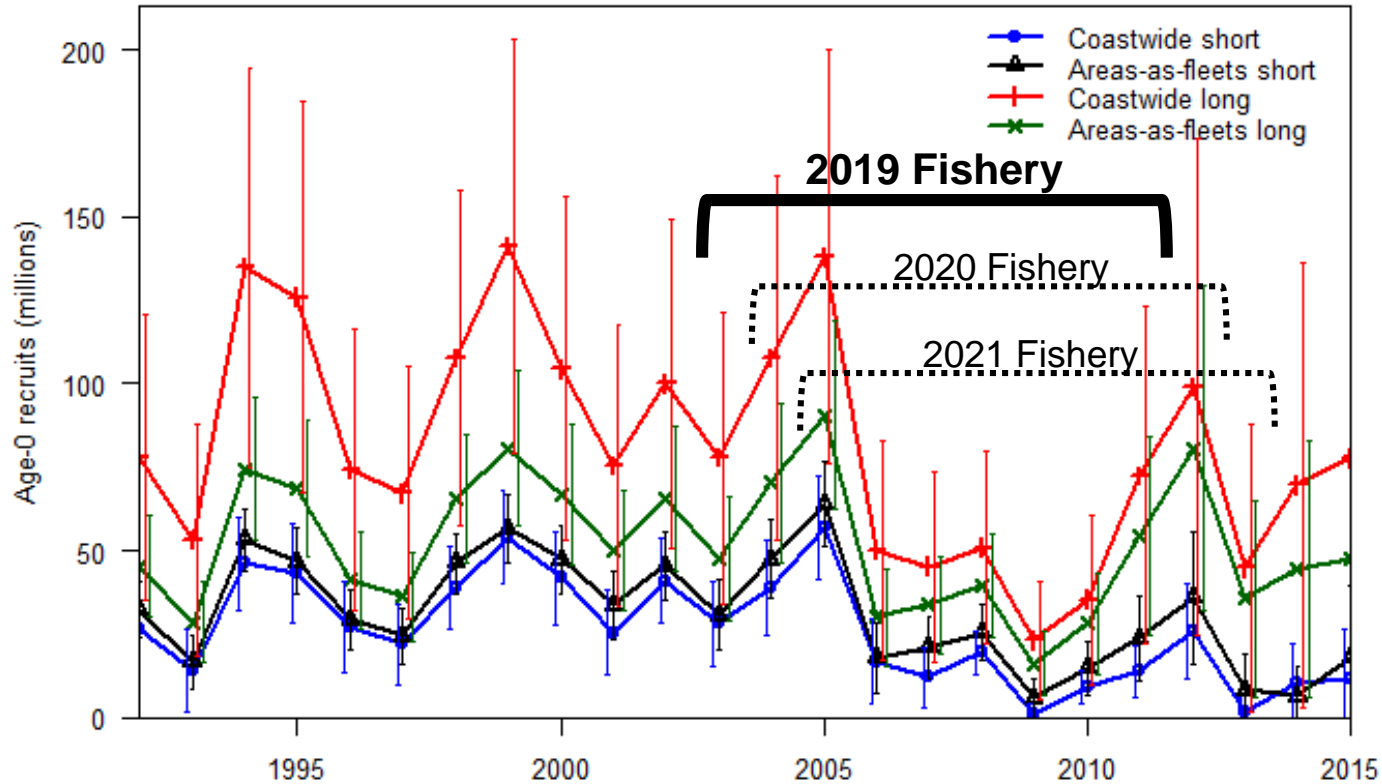
- Modelled survey trends down: numbers and WPUE
- Fishery CPUE trends mixed but flat coastwide
- Estimated spawning biomass decreased from 2018-2019 (as predicted); this is projected to continue for all 2020 TCEYs greater than 18.4 Mlb
- Interim management procedure indicates that lower yields needed to achieve a reference fishing intensity of $F_{46\%}$



Comparison to recent assessments



Recruitment estimates



2020 harvest decision table

				2020 Alternative								3-Year Surplus				Reference SPR=46%				Status quo														
				Total mortality (M lb)		TCEY (M lb)		2020 fishing Intensity		Fishing Intensity Interval		F _{63%}		F _{58%}		F _{53%}		F _{47%}		F _{48%}		F _{45%}		F _{44%}		F _{43%}		F _{42%}		F _{41%}		F _{40%}		F _{27%}
				0.0		0.0		F _{100%}		--		44-75%		39-71%		35-67%		31-62%		30-61%		29-60%		28-59%		28-58%		27-57%		26-56%		25-56%		17-43%
Stock Trend (spawning biomass)	In 2021	Is less than 2020		1	29	61	71	79	87	89	91	93	94	95	96	97	>99																	
		Is 5% less than 2020		<1	<1	11	23	30	42	46	50	54	58	61	64	67	98																	
	In 2022	Is less than 2020		<1	16	50	60	68	77	79	81	83	85	87	89	90	>99																	
		Is 5% less than 2020		<1	1	23	33	45	59	61	64	66	68	69	71	74	99																	
	In 2023	Is less than 2020		1	22	50	58	65	73	75	77	79	81	83	85	87	>99																	
		Is 5% less than 2020		<1	6	33	43	53	62	64	66	67	69	71	73	75	99																	
Stock Status (Spawning biomass)	In 2021	Is less than 30%		35	39	43	44	46	47	48	48	48	48	48	49	49	51																	
		Is less than 20%		<1	<1	<1	<1	<1	1	1	1	2	2	2	3	3	16																	
	In 2022	Is less than 30%		26	31	40	43	46	48	48	49	49	49	49	50	50	54																	
		Is less than 20%		<1	<1	<1	1	2	6	7	8	9	11	12	14	15	27																	
	In 2023	Is less than 30%		18	27	37	41	45	48	49	49	49	49	50	50	50	60																	
		Is less than 20%		<1	<1	<1	2	6	13	15	17	18	20	21	22	23	40																	
Fishery Trend (TCEY)	In 2021	Is less than 2020		0	<1	11	24	36	50	51	52	54	57	59	63	67	>99																	
		Is 10% less than 2020		0	<1	1	12	25	40	44	46	48	50	51	52	53	>99																	
	In 2022	Is less than 2020		0	<1	11	25	39	50	51	52	54	56	59	62	66	>99																	
		Is 10% less than 2020		0	<1	2	14	27	43	46	48	49	50	51	52	54	>99																	
	In 2023	Is less than 2020		0	<1	13	27	41	50	51	52	54	56	58	61	65	>99																	
		Is 10% less than 2020		0	<1	4	16	30	45	47	48	49	50	51	52	54	>99																	
Fishery Status (Fishing intensity)	In 2020	Is above F _{46%}		0	<1	7	22	31	48	50	51	53	55	57	60	64	>99																	



Mortality (TCEY) limits for 2020

IPHC Regulatory Area	<i>TCEY limits (net weight)</i>	
	<i>Metric tons (t)</i>	<i>Pounds (Mlb)</i>
Area 2A (California, Oregon, and Washington)	748.43	1.65
Area 2B (British Columbia)	3,098.04	6.83
Area 2C (southeastern Alaska)	2,653.51	5.85
Area 3A (central Gulf of Alaska)	5,533.83	12.20
Area 3B (western Gulf of Alaska)	1,415.21	3.12
Area 4A (eastern Aleutians)	793.79	1.75
Area 4B (central/western Aleutians)	594.21	1.31
Areas 4CDE (Bering Sea)	1,769.01	3.90
Total	16,601.48	36.60



Mortality table projected for the 2020 mortality limits, by IPHC Regulatory Area

Sector	IPHC Regulatory Area								
	2A	2B	2C	3A	3B	4A	4B	4CDE	Total
Commercial discard mortality	0.03	0.13	NA	NA	0.16	0.09	0.04	0.08	0.52
O26 non-directed discard mortality	0.12	0.24	0.07	1.29	0.53	0.22	0.16	2.06	4.69
Non-CSP recreational (+ discards)	NA	0.05	1.15	1.66	0.00	0.01	0.00	0.00	2.88
Subsistence	NA	0.41	0.37	0.19	0.02	0.01	0.00	0.04	1.03
Total non-FCEY	0.15	0.82	1.59	3.14	0.71	0.34	0.20	2.17	9.12
Commercial discard mortality	NA	NA	0.07	0.29	NA	NA	NA	NA	0.36
CSP recreational (+ discards)	0.61	0.88	0.78	1.71	NA	NA	NA	NA	3.98
Subsistence	0.03	NA	NA	NA	NA	NA	NA	NA	0.03
Commercial landings	0.87	5.12	3.41	7.05	2.41	1.41	1.10	1.73	23.11
Total FCEY	1.50	6.00	4.26	9.06	2.41	1.41	1.10	1.73	27.48
TCEY	1.65	6.83	5.85	12.20	3.12	1.75	1.31	3.90	36.60
U26 non-directed discard mortality	0.00	0.02	0.00	0.29	0.12	0.14	0.01	1.02	1.60
Total Mortality	1.65	6.85	5.85	12.49	3.24	1.89	1.32	4.92	38.19



Fishing periods

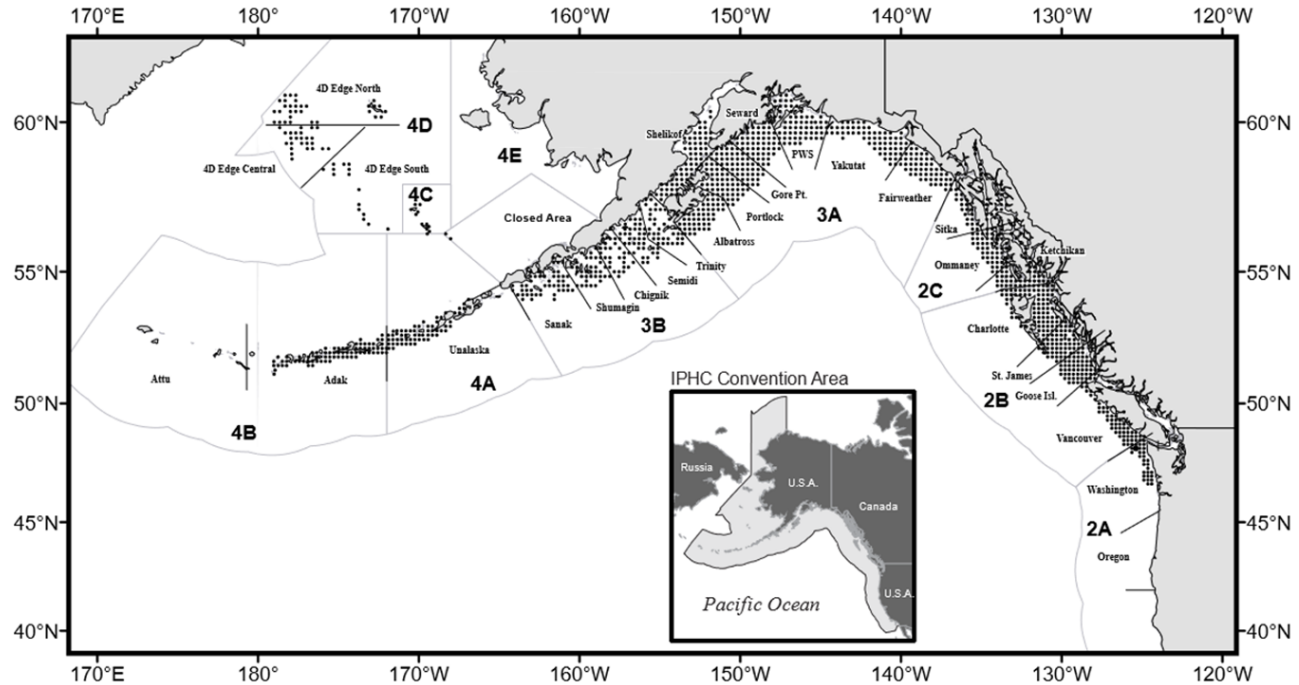
The Commission adopted these dates for 2020:

- All commercial fishing for Pacific halibut in all IPHC Regulatory Areas may begin no earlier than noon local time on **14 March** and must cease by noon local time on **15 November 2020**.
- For the IPHC Regulatory Area 2A non-tribal directed commercial fishery, the Commission adopted **three-day (58-hour) fishing periods** in place of the previous 10-hour fishing periods. The first fishing period will begin at *0800 Monday 22 June 2020* and end at *1800 Wednesday 24 June 2020*. Additional openings will take place at two-week intervals as allocation allows.



Research plans: FISS

For 2020, the fishery-independent setline survey (FISS) uses an enhanced randomized design, which allows variation in spatial coverage while maintaining scientific sampling targets.



(The final design for 2020 will sample 1290 of 1890 possible stations in the full survey design. 59 stations in Regulatory Area 4A will be sampled twice as part of the gear comparison study.)



Research plans: five-year program and management implications

5-Year Biological and Ecosystem Science Research Plan

<i>Primary Research Areas</i>	<i>Main Objectives</i>	<i>Management implications</i>
Migration	Improve understanding of migration throughout all life stages (larval, juvenile, adult feeding and reproductive migrations)	Stock distribution, regional management
Reproduction	Information on sex ratios of commercial landings and improved maturity estimates	Female stock spawning biomass
Growth	Improve understanding of factors responsible for changes in size-at-age and development of tools for monitoring growth and physiological condition	Biomass estimates
DMRs and discard survival	Improve estimates of DMRs in the directed longline and guided recreational fisheries	Discard mortality estimates
Genetics and genomics	Improve understanding of the genetic structure of the population and create genomic tools (genome)	Stock distribution, local adaptation



Management strategy evaluation (MSE)

- The Management Strategy Advisory Board (MSAB) recommended:
 - ten primary objectives & metrics, including a fishery objective to maintain the spawning biomass around a target of 36%
 - that SPR values greater than 40% with a 30:20 control rule and one of three types of constraints meet coastwide objectives
 - a reference SPR of 43% with 30:20 control rule be used to update the IPHC interim harvest policy
- An independent MSE peer review is scheduled to take place in April and August 2020
- Scale and distribution MSE results will be reviewed in fall 2020, and presented to the Commission at AM097 in January 2021



Annual Meeting information on the web

- Meeting documents, presentations, recordings, and media releases available on AM096 webpage at <https://www.iphc.int/venues/details/96th-session-of-the-iphc-annual-meeting-am096>
- Report of the 96th Annual Meeting (AM096): <https://www.iphc.int/uploads/pdf/am/2020am/iphc-2020-am096-r.pdf>

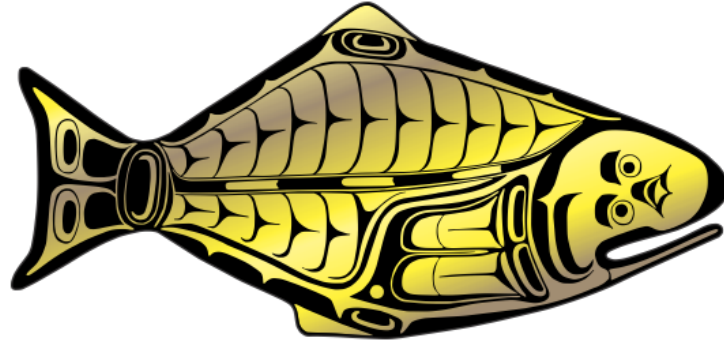


Looking ahead

- Upcoming IPHC meetings:
 - Management Strategy Advisory Board 11-14 May (Courtenay, BC)
 - Interim Meeting (IM096) 18-19 Nov (Seattle)
 - Annual Meeting (AM097) 25-29 Jan 2021 (Victoria, BC)
- Continued coordination with PFMC, agencies, and stakeholders on transition of IPHC Regulatory Area 2A fisheries to domestic management



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Recruitment estimates

