

INTERNATIONAL PACIFIC



HALIBUT COMMISSION


Outcomes of the 95th Session of the IPHC Annual Meeting (AM095)

NPFMC meeting
Agenda item B8
6 February 2019

95th Session of the IPHC Annual Meeting (AM095)

- 28 Jan – 1 Feb 2019 in Victoria, BC, Canada.
- Open to public (**198** participants) and webcast (**142** participants)
- AM095 webpage:

<https://iphc.int/venues/details/95th-session-of-the-iphc-annual-meeting-am095>

 INTERNATIONAL PACIFIC
HALIBUT COMMISSION

IPHC-2019-AM095-R

Report of the 95th Session of the IPHC Annual Meeting (AM095)

Victoria, British Columbia, Canada, 28 January to 1 February 2019

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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BIBLIOGRAPHIC ENTRY
IPHC 2019. Report of the 95th Session of the IPHC Annual Meeting (AM095). Victoria, Canada, 28 January to 1 February 2019.
IPHC-2019-AM095-R, 46 pp.

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Mortality limits for 2019

IPHC Regulatory Area	Mortality limit (TCEY) (Mlb)	Mortality limit (TCEY) (metric tonne)
2A	1.65	748.42
2B	6.83	3,098.04
2C	6.34	2,875.78
3A	13.50	6,123.50
3B	2.90	1,315.42
4A	1.94	879.97
4B	1.45	657.71
4CDE	4.00	1,814.37
Total (IPHC Convention Area)	38.61	17,513.20

Mortality limits 2018 vs 2019

IPHC Regulatory Area	2018 Mortality limit (TCEY) (Mlb)	2019 Mortality limit (TCEY) (Mlb)	% change
2A	1.32	1.65	25.00
2B	7.10	6.83	-3.80
2C	6.34	6.34	0.00
3A	12.54	13.50	7.66
3B	3.27	2.90	-11.31
4A	1.74	1.94	11.49
4B	1.28	1.45	13.28
4CDE	3.62	4.00	10.50
Total (IPHC Convention Area)	37.21	38.61	3.76

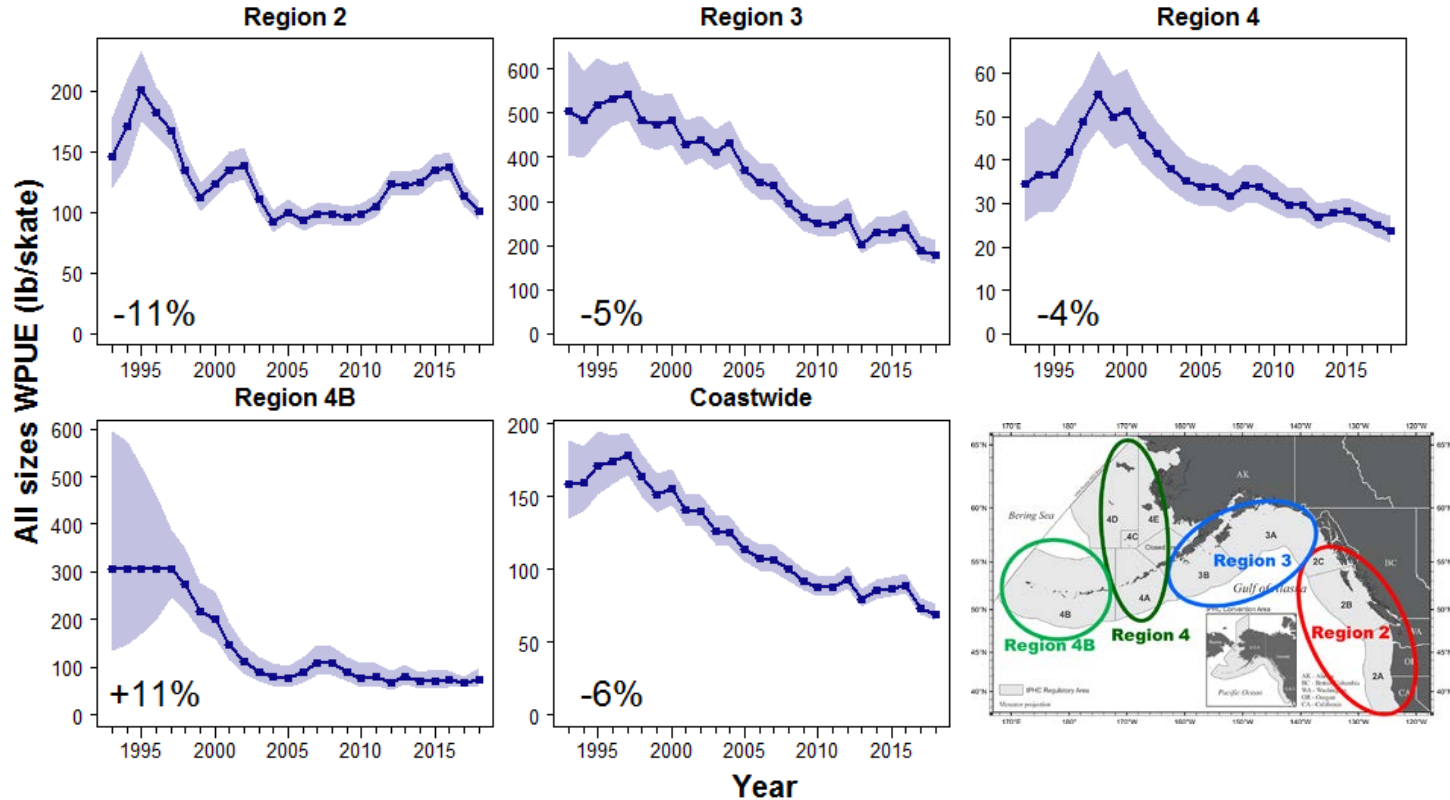
Mortality table projected for the 2019 mortality limits by IPHC Regulatory Area

Sector	IPHC Regulatory Area								
	2A	2B	2C	3A	3B	4A	4B	4CDE	Total
Commercial discard mortality	0.02	0.13	NA	NA	0.19	0.09	0.02	0.04	0.50
O26 Bycatch	0.13	0.27	0.03	1.28	0.36	0.18	0.22	1.87	4.33
Non-CSP Recreational (+ discards)	NA	0.08	1.38	1.74	0.00	0.01	0.00	0.00	3.21
Subsistence	NA	0.41	0.44	0.22	0.01	0.01	0.00	0.06	1.14
Total Non-FCEY	0.15	0.88	1.85	3.24	0.57	0.29	0.24	1.96	9.18
Commercial discard mortality	NA	NA	0.06	0.31	NA	NA	NA	NA	0.37
CSP Recreational (+ discards)	0.60	0.84	0.82	1.89	NA	NA	NA	NA	4.16
Subsistence	0.03	NA	NA	NA	NA	NA	NA	NA	0.03
Commercial Landings	0.86	5.10	3.61	8.06	2.33	1.65	1.21	2.04	24.88
Total FCEY	1.50	5.95	4.49	10.26	2.33	1.65	1.21	2.04	29.43
TCEY	1.65	6.83	6.34	13.50	2.90	1.94	1.45	4.00	38.61
U26 Bycatch	0.00	0.02	0.00	0.37	0.11	0.10	0.01	1.12	1.73
Total Mortality	1.65	6.85	6.34	13.87	3.01	2.04	1.46	5.12	40.34

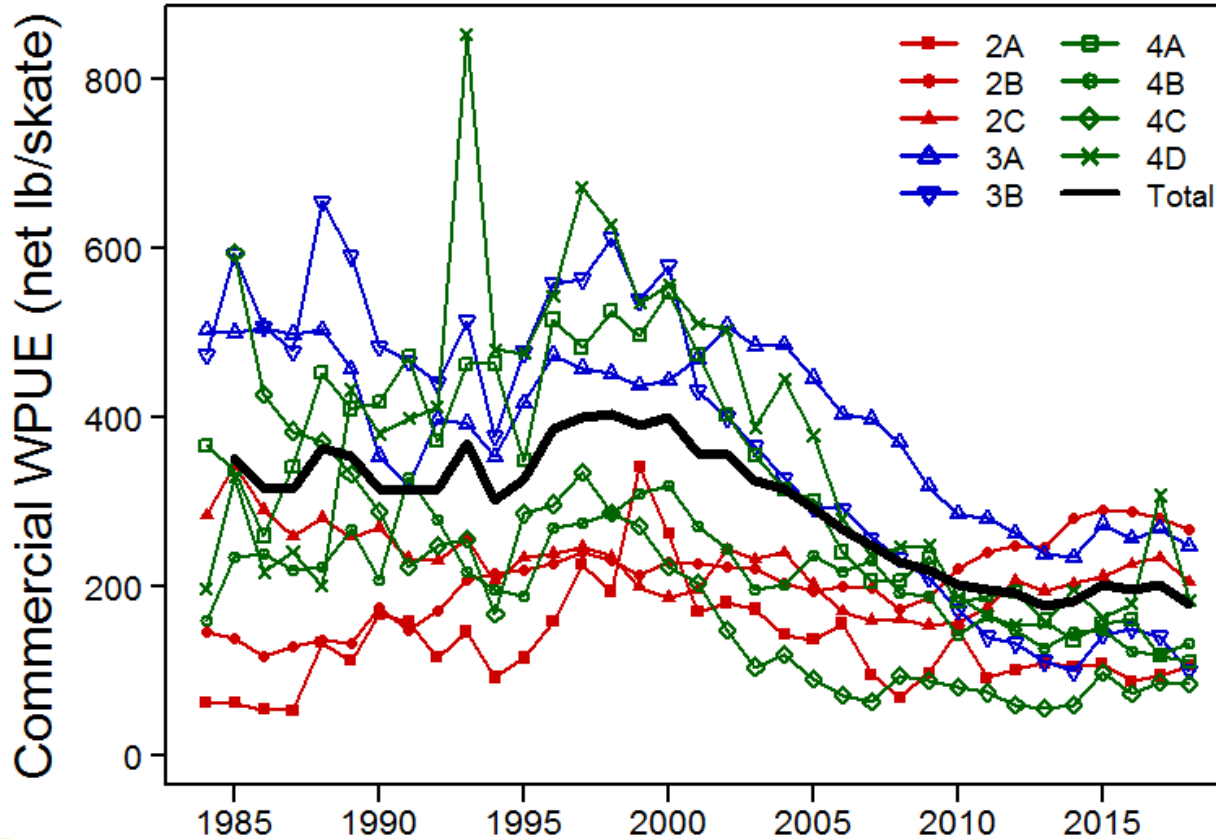
Data summary

- Fishery and modelled survey trends down coastwide
- Average size and size-at-age relatively stable since 2010

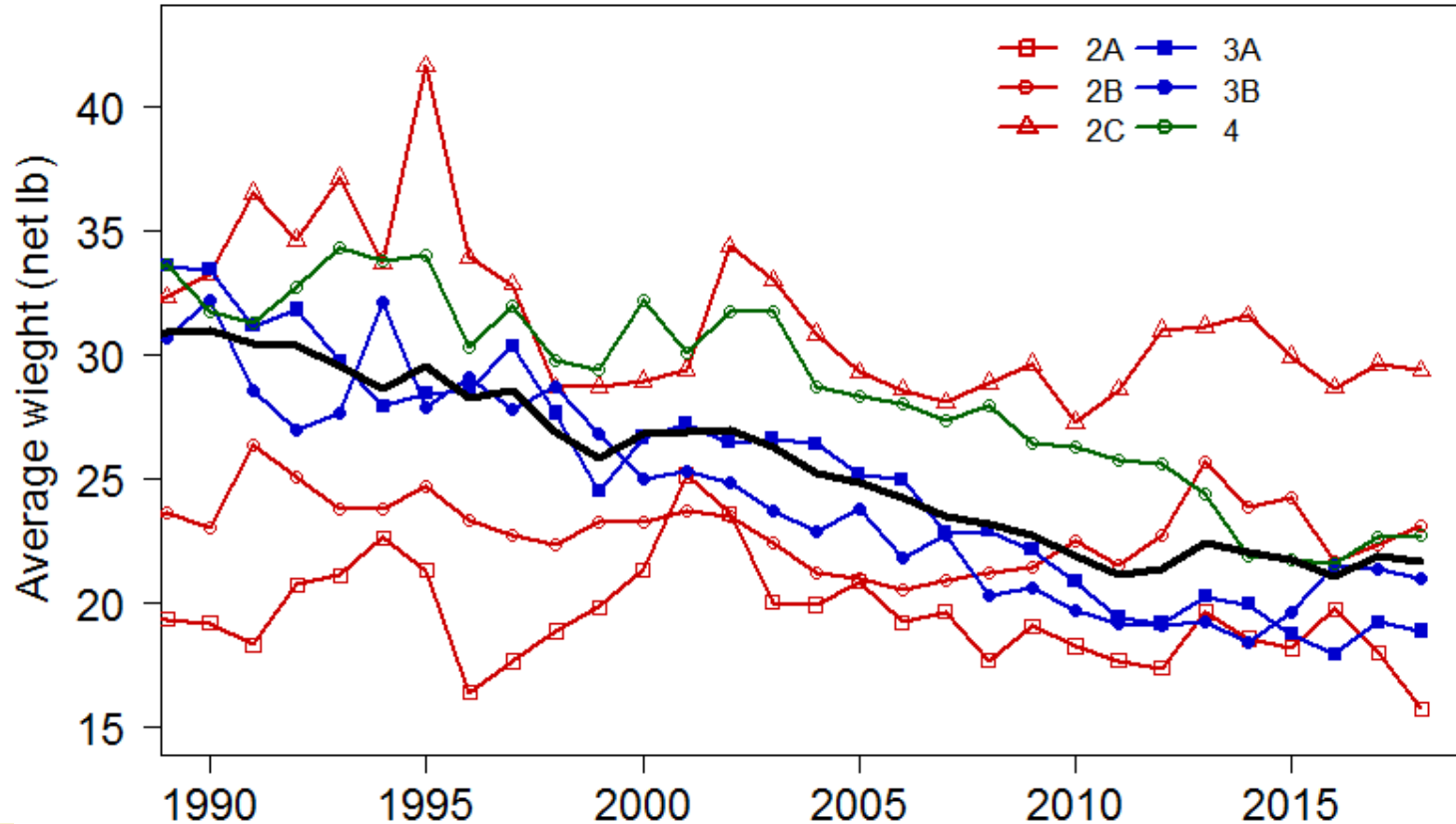
Modelled survey trend (all WPUE)



Commercial catch-rates



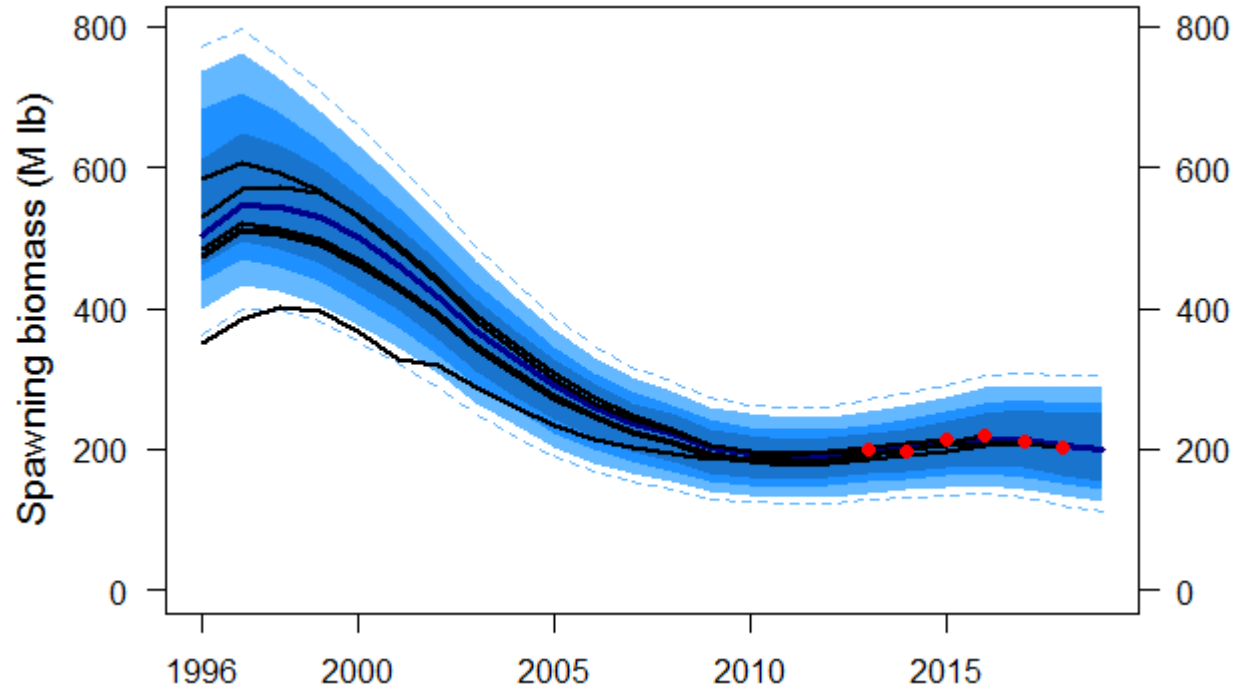
Fishery average fish weight



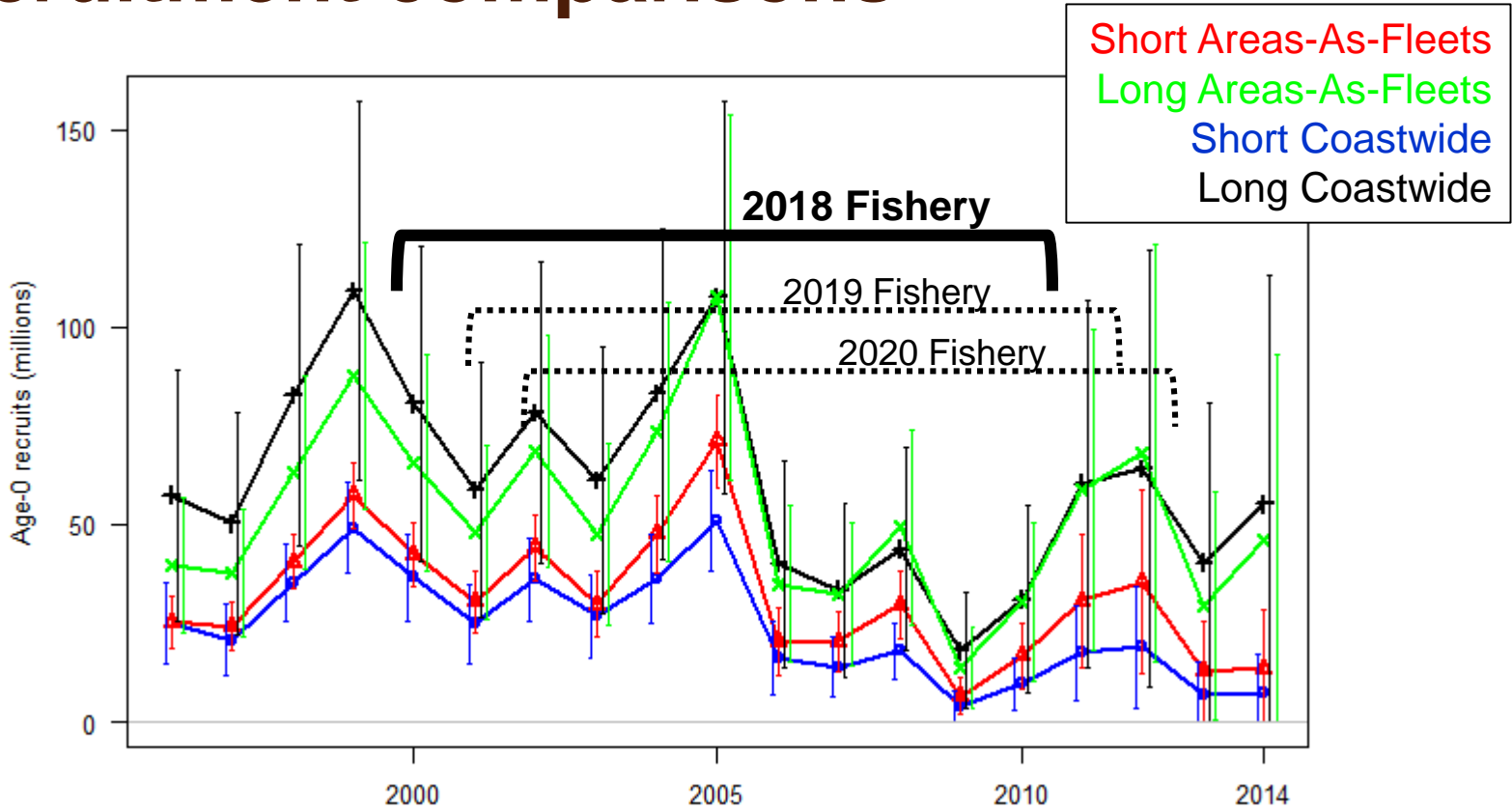
Assessment summary

- Spawning biomass decreasing slowly since 2016
- Low numbers of recruits from 2006-2010, 2011-2012 slightly higher but uncertain

Comparison to previous assessments



Recruitment comparisons



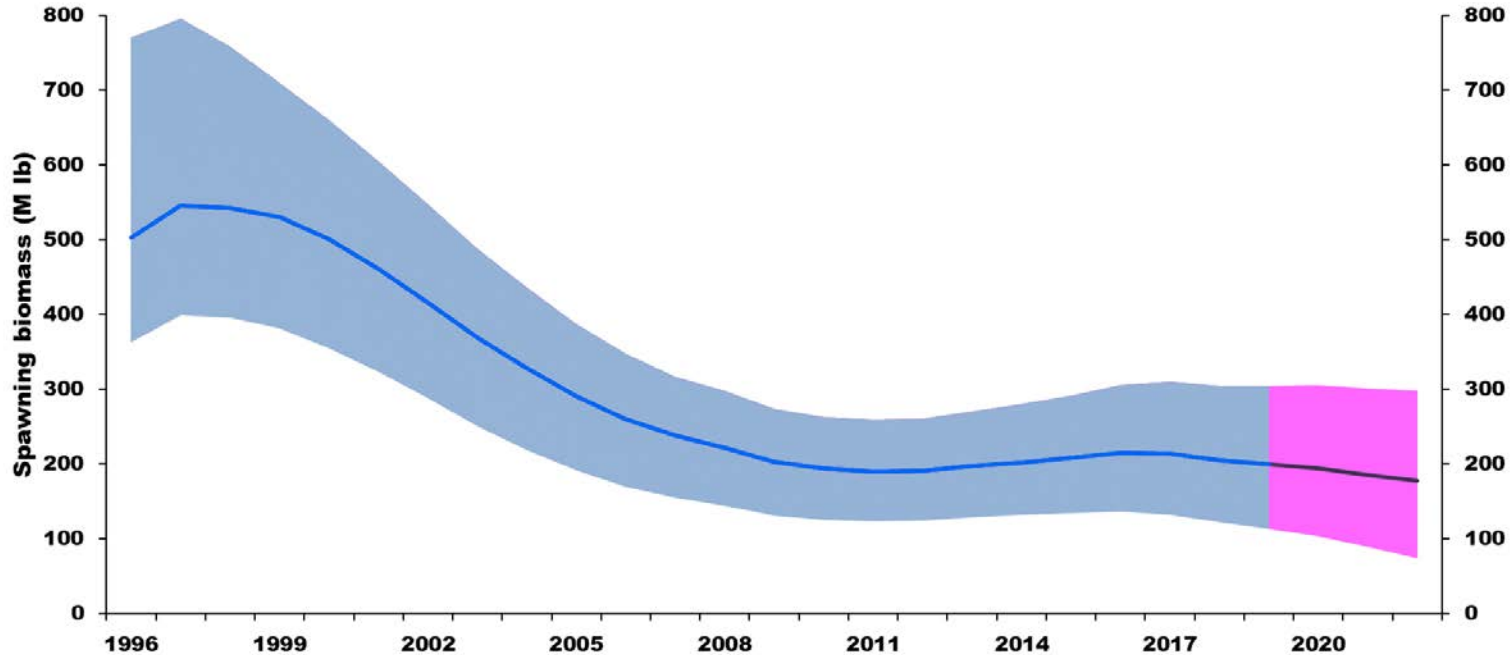
Assessment summary table

Indicators	Values	Trends	Status
Total mortality 2018: Retained catch 2018: Average removals 2014–18:	38.74 MLBS, 17,572 T 31.81 MLBS, 14,427 T 41.39 MLBS, 18,772 T	MORTALITY DECREASED FROM 2017 TO 2018	2018 MORTALITY NEAR 100-YEAR LOW
SPR₂₀₁₈: P(SPR<46%): P(SPR<limit):	49% (28-62%) 34% LIMIT NOT SPECIFIED	FISHING INTENSITY DECREASED FROM 2017 TO 2018	FISHING INTENSITY BELOW REFERENCE LEVEL
SB₂₀₁₉ (Mlb): SB₂₀₁₉/SB₀: P(SB₂₀₁₉<SB₃₀): P(SB₂₀₁₉<SB₂₀):	199 MLBS (125–287) 43% (27-63%) 11% <1%	SB DECREASED FROM 2017 TO 2018	NOT OVERFISHED
Biological stock distribution:	SEE TABLES AND FIGURES	DISTRIBUTION STABLE 2014-18	REGION 2 ABOVE, REGION 3 BELOW HISTORICAL VALUES

Adopted 2019 mortality limit (38.61 M lb)

- Between the *status quo* (37.21 M lb) and the Interim Management Procedure (40 M lb)
 - Represents a 4% increase from 2017
- Corresponds to projections of:
 - $F_{47\%}$ in 2019
 - 84% probability of decrease in SB in 2020
 - 18% probability of dropping below $SB_{30\%}$ management trigger in 2020
 - 51% probability of fishery limit decrease to maintain $F_{46\%}$ in 2020

Adopted mortality limit projection



Stock and analysis outlook

- Stock productivity remains low
 - Slowly decreasing spawning biomass over the next several years pending improved recruitment
- 2019 data (survey expansion and age information) will be important
- Sex-ratio data from the commercial catch to be included in 2019 stock assessment
- Full assessment review in June 2019

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- Other decisions:
 - Fishing periods
 - Charter Pacific halibut measures
 - Research plans



Fishing Periods

- The Commission **ADOPTED** fishing periods for 2019 as provided below, thereby superseding Section 9 of the IPHC Pacific halibut fishery regulations:
 - All commercial fishing for Pacific halibut in all IPHC Regulatory Areas may begin no earlier than **15 March** and must cease on **14 November**.

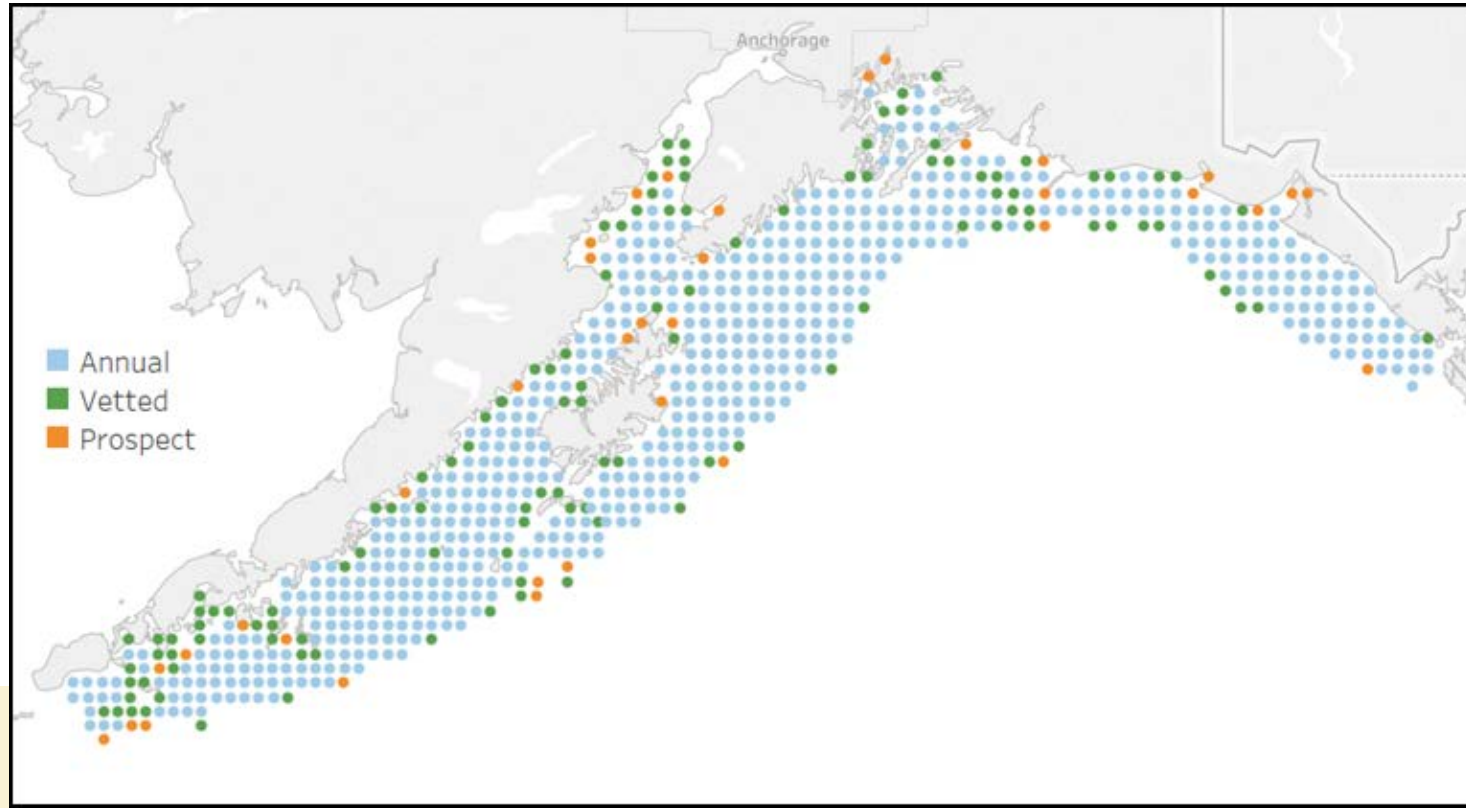
Charter management measures in IPHC Regulatory Areas 2C and 3A

The Commission **ADOPTED** the North Pacific Fishery Management Council's recommended management measures for charter Pacific halibut fisheries in IPHC Regulatory Areas 2C and 3A for application in 2019

- in order to achieve the charter Pacific halibut allocation under the Council's Pacific Halibut Catch Sharing Plan.

Research plans

IPHC Fishery-independent setline survey (FISS) expansion in IPHC Regulatory Areas 3A and 3B in 2019

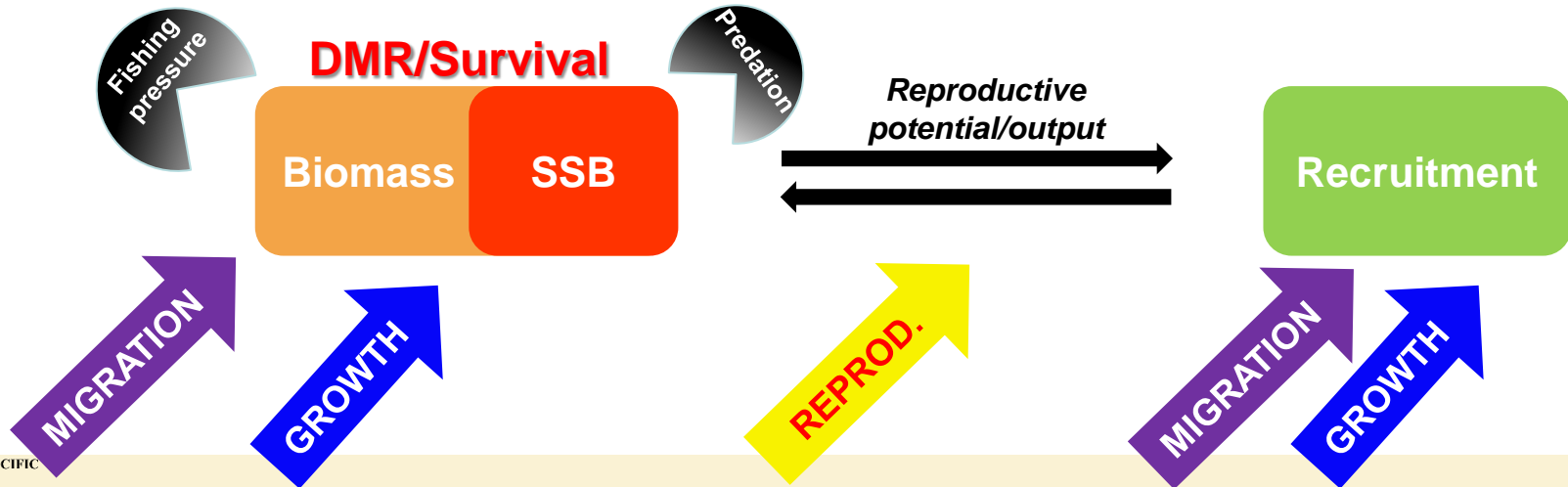


Five-year research program



Primary objectives

- Identify and address *critical knowledge gaps* in the biology of Pacific halibut
- Understand the influence of *environmental conditions* on Pacific halibut biology
- Apply resulting knowledge to reduce *uncertainty* in current stock assessment models

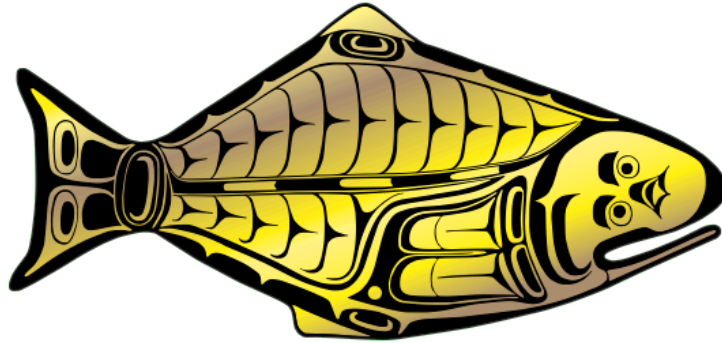


Looking ahead

- Management Strategy Advisory Board 6-9 May (Sitka, AK)
- Interim Meeting (IM095) 25-26 Nov in Seattle, WA
- Annual Meeting (AM096) 27-31 Jan 2020 in Anchorage, AK.

- Annual Meeting materials available at <https://iphc.int/venues/details/95th-session-of-the-iphc-annual-meeting-am095>
- Annual Meeting (AM095) Report
 - Posted: <https://iphc.int/uploads/pdf/am/2019am/iphc-2019-am095-r.pdf>

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2019 Alternative			No fishing mortality	Status quo	Adopted	Reference SPR=46%												
Total mortality (M lb)			0.0	11.7	21.8	31.8	37.6	39.0	40.4	41.8	43.1	44.3	45.5	46.8	48.3	49.9	61.8	
TCEY (M lb)			0.0	10.0	20.0	30.0	35.8	37.2	38.6	40.0	41.3	42.5	43.7	45.0	46.5	48.1	60.0	
2019 Fishing intensity			F _{100%}	F _{78%}	F _{64%}	F _{54%}	F _{49%}	F _{48%}	F _{47%}	F _{46%}	F _{45%}	F _{44%}	F _{43%}	F _{42%}	F _{41%}	F _{40%}	F _{34%}	
Fishing intensity interval			--	56-87%	41-76%	31-67%	27-63%	26-62%	25-61%	25-60%	24-59%	23-59%	23-58%	22-57%	22-56%	21-55%	17-49%	
Stock Trend (spawning biomass)	in 2020	is less than 2019	1	3	26	37	44	48	84	87	90	92	93	95	96	97	>99	a
		is 5% less than 2019	<1	<1	1	10	26	30	34	37	39	41	43	45	48	50	78	b
	in 2021	is less than 2019	1	7	41	75	90	93	94	96	97	98	98	99	99	99	>99	c
		is 5% less than 2019	<1	1	11	42	57	61	65	69	73	77	80	83	87	90	99	d
	in 2022	is less than 2019	1	12	51	82	93	94	96	97	98	98	99	99	99	>99	>99	e
		is 5% less than 2019	<1	3	28	58	76	79	83	86	88	90	92	93	95	96	>99	f
Stock Status (Spawning biomass)	in 2020	is less than 30%	5	7	11	18	24	25	18	18	19	19	20	20	21	21	25	g
		is less than 20%	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	h
	in 2021	is less than 30%	3	7	13	20	24	25	25	26	27	27	27	28	29	29	33	i
		is less than 20%	<1	<1	<1	<1	1	1	1	1	2	2	2	3	3	4	10	j
	in 2022	is less than 30%	2	8	17	25	28	29	29	30	30	31	31	32	33	33	41	k
		is less than 20%	<1	<1	<1	2	4	5	6	7	8	9	10	12	13	15	24	l
Fishery Trend (TCEY)	in 2020	is less than 2019	0	<1	18	25	33	37	51	56	60	63	66	69	73	77	95	m
		is 10% less than 2019	0	<1	12	25	29	33	37	42	47	51	54	58	62	66	95	n
	in 2021	is less than 2019	0	<1	20	28	46	51	56	60	64	67	70	73	77	81	97	o
		is 10% less than 2019	0	<1	16	26	35	39	44	49	53	56	59	63	66	71	97	p
	in 2022	is less than 2019	0	<1	22	32	50	54	58	62	66	69	72	76	79	83	98	q
		is 10% less than 2019	0	<1	19	28	40	45	49	53	56	60	62	66	69	73	98	r
Fishery Status (Fishing intensity)	in 2019	is above F _{46%}	0	<1	16	25	35	40	46	50	56	59	62	65	69	72	92	s