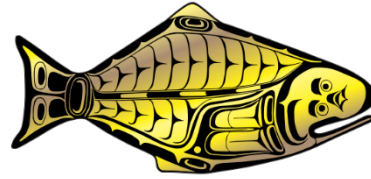


INTERNATIONAL PACIFIC



HALIBUT COMMISSION

Alternative projections for 2019 (last year) adjusted U26 discard mortality in non-directed fisheries

Agenda item 6.4

IPHC-2019-IM095-12

Purpose

As requested by the Commission, provide a method of mitigating the effects of U26 discard mortality in non-directed fisheries in Alaska on IPHC Regulatory Area 2B



Method

1. Solve for Interim management procedure (including the AM095 adjusted 2A and 2B measures)
2. Remove all U26 non-directed discards in AK
3. Recalculate TCEYs at reference SPR
4. Compare to (1) to find yield gain in 2B
5. Add yield gain in 2B to (1) and recalculate AK TCEYs to again achieve the reference SPR



Example application to 2019 (last year)

	<u>2A</u>	<u>2B</u>	<u>2C</u>	<u>3A</u>	<u>3B</u>	<u>4A</u>	<u>4B</u>	<u>4CDE</u>	<u>Total</u>
Base	1.65	6.83	6.34	13.50	2.90	1.94	1.45	4.00	38.61
%	4.3%	17.7%	16.4%	35.0%	7.5%	5.0%	3.8%	10.4%	100.0%

Adopted TCEYs for 2019
IPHC-2019-IM095-12 Table 1



Mitigating for U26 non-directed discards in AK

	<u>2A</u>	<u>2B</u>	<u>2C</u>	<u>3A</u>	<u>3B</u>	<u>4A</u>	<u>4B</u>	<u>4CDE</u>	<u>Total</u>
Base	1.65	6.83	6.34	13.50	2.90	1.94	1.45	4.00	38.61
%	4.3%	17.7%	16.4%	35.0%	7.5%	5.0%	3.8%	10.4%	100.0%
Without U26	1.79	7.40	6.87	14.63	3.14	2.10	1.57	4.34	41.85
Gain	0.14	0.57	0.53	1.13	0.24	0.16	0.12	0.34	3.24

Yield gain from: IPHC-2019-AM095-INF07



Mitigating for U26 non-directed discards in AK

	<u>2A</u>	<u>2B</u>	<u>2C</u>	<u>3A</u>	<u>3B</u>	<u>4A</u>	<u>4B</u>	<u>4CDE</u>	<u>Total</u>
Base	1.65	6.83	6.34	13.50	2.90	1.94	1.45	4.00	38.61
%	4.3%	17.7%	16.4%	35.0%	7.5%	5.0%	3.8%	10.4%	100.0%
Without U26	1.79	7.40	6.87	14.63	3.14	2.10	1.57	4.34	41.85
Gain	0.14	0.57	0.53	1.13	0.24	0.16	0.12	0.34	3.24
Adjusted	1.65	7.40	6.22	13.24	2.84	1.90	1.42	3.92	38.61
Adjusted %	4.3%	19.2%	16.1%	34.3%	7.4%	4.9%	3.7%	10.2%	100%

Results will differ in each year depending on:

Total TCEY (SPR), current fishery selectivity, biology, etc.



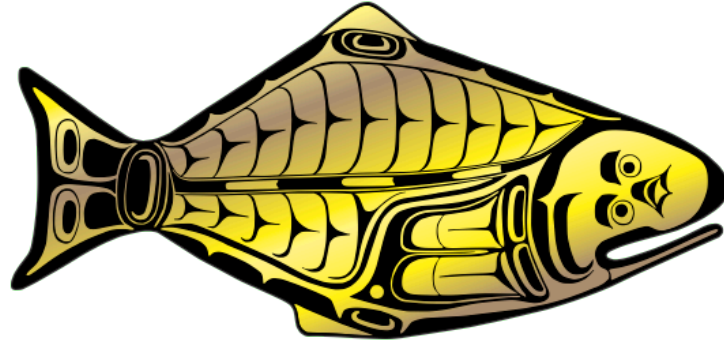
Recommendations

That the Commission:

- **NOTE** paper IPHC-2019-IM095-12 which provides an alternative approach for accounting for U26 discard mortality in non-directed fisheries, as requested by the Commission.
- **REQUEST** this or another method to be applied as a basis for the mortality projection tool for use in the decision making process at AM096.



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