



Updated Pacific halibut catch tables

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PURPOSE

To provide the Commission with an opportunity to consider updated Pacific halibut catch tables from the application of the current International Pacific Halibut Commission (IPHC) harvest policy as well as additional information on fishing intensity and management alternatives for 2017.

BACKGROUND

The IPHC fishery-independent setline survey legal-size (O32) Weight-Per-Unit-Effort (WPUE) is used to estimate the distribution of the stock available to the directed fisheries each year. The apportionment percentages and the target harvest rates for each regulatory area (21.5% for Areas 2A-3A, and 16.125% for Areas 3B-4CDE) together result in a target distribution for the annual TCEY. The scale of this distribution is based on the estimate of the coastwide exploitable biomass at the beginning of 2017 from the stock assessment. The Blue Line catch table is then calculated by solving for the area specific Fishery Constant Exploitation Yield (FCEY) values that satisfy both the target scale and distribution of the coastwide Total Constant Exploitation Yield (TCEY) based on projections of all sources of O26 (over 26" (66 cm) in length) removals. Differing components of the O26 removals are included in the FCEY, along with commercial fishery landings, in Areas 2A-3A, depending on the Catch Sharing Plan (CSP) in place for each area. Catch tables including all sizes and sources of removals, (including U26) are presented for the 2017 Blue Line, and the *status quo* Spawning Potential Ratio (SPR; the average fishing intensity realized on the stock over the period 2014-16). Additional management alternatives will be produced as needed during the 2017 Annual Meeting (AM093) at the request of the Commissioners, Processor Advisory Group (PAG) and the Conference Board (CB).

A detailed description of the methodology used, and the results based on the Preliminary Pacific halibut stock assessment, is provided in Chapter 4.4 '*Regulatory area harvest policy calculations and catch tables*' of the IPHC Report of Assessment and Research Activities (2016): <http://iphc.int/library/raras/485-rara2016.html>.

DISCUSSION

Following standard IPHC procedure, the catch table results (but not the underlying stock assessment models) presented during the 2016 Interim Meeting (IM092) have been updated for the 2017 Annual Meeting (AM093). Specifically, bycatch mortality estimates from non-Pacific halibut fisheries in Alaska were updated as of 6 January 2017 to reflect end-of-the-year values. These 2016 estimates are then used to project removals for 2017. In aggregate, coastwide bycatch mortality in 2016 was estimated to be 7.01 million net pounds (~3,180 t), slightly lower than the preliminary estimate of 7.1 million net pounds (~3,221 t). This change resulted from decreases from preliminary estimates in several IPHC Regulatory Areas, the largest being 3A down 0.25 million net pounds (~113 t), and increases in several areas, the largest being 4CDE up by 0.24 million net pounds (~107 t).

The revised analysis does not change the 2017 Blue Line TCEY results, which are slightly lower at the coastwide level (35.41 million lbs, ~16,060 t) than the Blue Line calculated in 2016 (36.31 million lbs, ~16,470 t) due to a small decrease in the exploitable biomass estimate from the stock assessment (181 million lbs, ~82,100 t). However, the 2017 Blue Line FCEY, reflecting changes in bycatch, wastage, and other sources of projected removals, results in increases in target FCEY values for three regulatory areas (3A, 3B, and 4B) relative to the Blue line projected for 2016 ([Appendix A, Table 1](#)). An alternative based on the average fishing intensity over 2014-16, the status quo SPR, also updated to reflect the revised bycatch projections results in an increase over the 2016 Blue Line in all Areas except 2A, and an increase over the 2016 adopted FCEYs for all Areas except 2A, 2B, and 2C ([Appendix A, Table 2](#)).

RECOMMENDATION/S

That the Commission **NOTE** paper IPHC-2017-AM093-08 which provided the Commission with an opportunity to consider updated Pacific halibut catch tables from the application of the current International Pacific Halibut Commission (IPHC) harvest policy as well as additional information on fishing intensity and management alternatives for 2017.

APPENDICES

[Appendix A](#): Updated Pacific halibut catch tables

**APPENDIX A
UPDATED PACIFIC HALIBUT CATCH TABLES**

Table 1. Catch table projected for the 2017 Blue Line, revised to reflect bycatch mortality estimates from non-halibut fisheries in Alaska updated as of 6 January 2017. All values reported in millions of net pounds.

	2A	2B	2C	3A	3B	4A	4B	4CDE	Total
<u>O26 Non-FCEY</u>									
Comm. Wastage	0.02	0.15	NA	NA	0.23	0.04	0.06	0.07	0.57
Bycatch	0.10	0.24	0.03	1.17	0.58	0.34	0.14	1.98	4.57
Sport (+ wastage)	NA	NA	1.33	1.56	0.01	0.01	0.00	0.00	2.91
Pers./Subs.	NA	0.41	0.43	0.23	0.02	0.01	0.00	0.08	1.17
Total Non-FCEY	0.12	0.79	1.79	2.96	0.84	0.40	0.19	2.13	9.22
<u>O26 FCEY</u>									
Comm. Wastage	NA	NA	0.09	0.36	NA	NA	NA	NA	0.45
CSP Sport (+wastage)	0.34	0.73	0.75	1.81	NA	NA	NA	NA	3.62
Pers./Subs.	0.03	NA	NA	NA	NA	NA	NA	NA	0.03
Comm. Landings	0.38	3.99	3.24	7.41	3.14	1.26	1.12	1.55	22.09
Total FCEY	0.75	4.72	4.08	9.57	3.14	1.26	1.12	1.55	26.19
TCEY	0.87	5.51	5.86	12.53	3.98	1.66	1.32	3.68	35.41
<u>U26</u>									
Comm. wastage	0.00	0.00	0.00	0.01	0.03	0.01	0.00	0.00	0.06
Bycatch	0.00	0.02	0.00	0.62	0.29	0.23	0.01	1.27	2.44
Total U26	0.00	0.02	0.00	0.63	0.33	0.24	0.01	1.27	2.50
Total Mortality	0.87	5.53	5.86	13.17	4.30	1.90	1.33	4.95	37.91

Table 2. Catch table projected for 2017 based on the *status quo* SPR ($F_{46\%}$; the average over 2014-2016); maintaining the same level fishing intensity, revised to reflect bycatch mortality estimates from non-halibut fisheries in Alaska updated as of 6 January 2017. All values reported in millions of net pounds.

	2A	2B	2C	3A	3B	4A	4B	4CDE	Total
<u>O26 Non-FCEY</u>									
Comm. wastage	0.03	0.16	NA	NA	0.26	0.05	0.06	0.09	0.65
Bycatch	0.10	0.24	0.03	1.17	0.58	0.34	0.14	1.98	4.57
Sport (+ wastage)	NA	NA	1.33	1.56	0.01	0.01	0.00	0.00	2.91
Pers./Subs.	NA	0.41	0.43	0.23	0.02	0.01	0.00	0.08	1.17
Total Non-FCEY	0.12	0.81	1.79	2.96	0.86	0.41	0.20	2.15	9.30
<u>O26 FCEY</u>									
Comm. wastage	NA	NA	0.11	0.41	NA	NA	NA	NA	0.52
CSP Sport (+wastage)	0.38	0.82	0.86	1.90	NA	NA	NA	NA	3.95
Pers./Subs.	0.03	NA	NA	NA	NA	NA	NA	NA	0.03
Comm. Landings	0.43	4.46	3.72	8.56	3.53	1.43	1.25	1.92	25.30
Total FCEY	0.84	5.28	4.69	10.88	3.53	1.43	1.25	1.92	29.81
TCEY	0.96	6.08	6.47	13.84	4.39	1.84	1.46	4.06	39.10
<u>U26</u>									
Comm. wastage	0.00	0.00	0.00	0.02	0.04	0.01	0.00	0.00	0.07
Bycatch	0.00	0.02	0.00	0.62	0.29	0.23	0.01	1.27	2.44
Total U26	0.00	0.02	0.00	0.64	0.33	0.24	0.01	1.27	2.51
Total Mortality	0.96	6.11	6.48	14.48	4.72	2.08	1.47	5.33	41.62