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## State of the Fishery (2016)

PREPARED BY: IPHC SECRETARIAT (J. GOEN; 13 JANUARY 2017)

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### PURPOSE

To provide the Commission with an update on the key fishery statistics from fisheries catching Pacific halibut during the 2016 fishing season, including the status of landings compared to catch limits adopted by the Commission.

### BACKGROUND

The International Pacific Halibut Commission (IPHC or Commission) estimates all Pacific halibut removals taken in the north Pacific Ocean and uses this information in its stock assessment. The data are compiled by the IPHC and include data from federal and state agencies. All 2016 data are in net weight (head-off, dressed, ice and slime deducted) and considered preliminary at this time. If full-year estimates (through 31 December 2016) were not available, IPHC or agency staff projected amounts for each removal by regulatory area. The IPHC regulatory areas are provided in Figure 1.

When the Commission was established in 1923, the commercial fishery, which dates back to the late 1800s, was the only documented source of harvest. Since that time, the commercial landings have continued to be the largest removal coastwide, however, as the Pacific halibut stocks have declined, they have represented a lower percentage of the total removals. The commercial landings represented 58% of the removals in 2016. Estimates of other removals have been added through the years and, for the first time, the release (incidental) mortality of Pacific halibut from the sport fishery was estimated and included in the catch tables in 2014. The other removals, including when they were first accounted for, are: bycatch mortality in the 1960s, sport catch in the late 1970s, wastage from the directed commercial fishery in the 1980s, and personal use (subsistence) in the 1990s. In 2016, the removals from all sources totaled 41.9 million pounds (Table 1), similar to 2014 and 2015. The total removals were at the highest levels from 1998 to 2007, in the 90-100 million pound range, declined for several years, and appear to be stabilized at levels similar to levels from the early 1980s (Stewart 2017).

This report provides a summary of removals in Tables 1 through 3, and highlights where to find further details on the landings and incidental mortality by commercial and sport fisheries, the estimates of subsistence use and bycatch mortality. Values in these tables are the same as reported in the IPHC Report of Assessment and Research Activities. These values may be updated in January each year for use in the IPHC catch tables. Table 1 provides estimates of total removals and catch against catch limits by IPHC regulatory area. Table 2 provides a summary of commercial fishing seasons, catch limits, and landings by IPHC regulatory area. Table 3 provides the summary of 2016 coastwide sport fishery catch estimates (including incidental mortality and leased commercial quota).

Additional information on these removals is available in the IPHC Report of Assessment and Research Activities as follows:

- **Directed Commercial Fishery**

- **LANDINGS**

*Chapter 2.1 2016 commercial fishery and regulation changes* (p. 27-40)  
[http://www.iphc.int/publications/rara/2016/IPHC-2016-RARA-26-R-2.1 Commercial fishery.pdf](http://www.iphc.int/publications/rara/2016/IPHC-2016-RARA-26-R-2.1%20Commercial%20fishery.pdf)

This document summarizes the regulations and the results of the 2016 commercial Pacific halibut fishery. The total commercial landings of 24,344,000 pounds (11,042 t) were 3% under the IPHC set catch limit; in addition, 682,000 pounds (309 t) were landed from the IPHC fishery-independent setline surveys. The commercial Pacific halibut fisheries in Area 2A consisted of the incidental Pacific halibut catch during the salmon troll and limited-entry sablefish fisheries, the directed commercial fishery with fishing period limits, and the treaty Indian fisheries. Farther north, the commercial fisheries consisted of the Individual Vessel Quota fishery in Area 2B, the Individual Fishing Quota system in Alaska, the Community Development Quota fisheries in Areas 4B and 4CDE, and the Metlakatla fishery in Southeast Alaska. All 2016 catch and landing data presented in this document are preliminary.

- **INCIDENTAL MORTALITY**

*Chapter 2.2 Incidental mortality of Pacific halibut in the Directed commercial halibut fishery (Wastage)* (p. 41-49)  
[http://www.iphc.int/publications/rara/2016/IPHC-2016-RARA-26-R-2.2 Incidental mortality of Pacific halibut.pdf](http://www.iphc.int/publications/rara/2016/IPHC-2016-RARA-26-R-2.2%20Incidental%20mortality%20of%20Pacific%20halibut.pdf)

Incidental mortality of Pacific halibut in the commercial Pacific halibut fishery is the mortality of all halibut that do not become part of the landed catch. This mortality is termed wastage in many IPHC publications. The three main sources of this mortality estimate include: 1) fish that are captured and discarded because they are below the legal size limit of 32 inches (81.3 cm), 2) fish that are estimated to die on lost or abandoned fishing gear, and 3) fish that are discarded for regulatory reasons (e.g., the vessels trip limit has been exceeded). The methods that are applied to produce each of these estimates differ due to the amount and quality of information available. Information on lost gear and regulatory discards is collected through logbook interviews and fishing logs received by mail. The ratio of U32 to O32 Pacific halibut (>32 inches in length) is determined from the IPHC fisheries-independent setline survey in most areas and by direct observation in the Area 2B fishery. Halibut wastage estimates from the commercial halibut fishery are presented, with 2016 data preliminary at time of publication.

- **Sport Fisheries**

- *Chapter 2.3 2016 Pacific halibut sport fishery review* (p. 50-62)  
[http://www.iphc.int/publications/rara/2016/IPHC-2016-RARA-26-R-2.3 Sport fishery review.pdf](http://www.iphc.int/publications/rara/2016/IPHC-2016-RARA-26-R-2.3%20Sport%20fishery%20review.pdf)

The 2016 sport harvest of Pacific halibut was estimated at 7.381 Mlb (3,348 t) including catch and incidental mortality, similar to the sport harvest in 2015 (7.464 Mlb, 3,386 t). Changes in harvests varied across areas; in some cases, in response to changes in size restrictions. Area 2B operated under a 133 cm (52.4 inch) maximum size limit, and one halibut had to be less than 83 cm (32.7 inch) when attaining the two fish possession limit. A reverse slot limit allowing for the retention of halibut, if  $\leq 43$  inches (109.2 cm) or  $\geq 80$  inches (203 cm) (compared to  $\leq 42$  inches (106.7 cm) and  $\geq 80$  inches (203 cm) in 2015) in total length, was

continued by the IPHC for the charter fishery in Area 2C. In Area 3A, charter anglers were allowed to retain two fish, but only one could exceed 28 inches in length, with no charter retention of Pacific halibut on Wednesdays throughout the season. Major sport fishery restrictions, such as daily bag and possession limits, for other areas and sectors remained unchanged from 2015.

- **Personal Use (Subsistence)**

- *Chapter 2.4 The personal use (subsistence) harvest of Pacific halibut through 2016* (p. 63-67)

[http://www.iphc.int/publications/rara/2016/IPHC-2016-RARA-26-R-2.4\\_Personal\\_use.pdf](http://www.iphc.int/publications/rara/2016/IPHC-2016-RARA-26-R-2.4_Personal_use.pdf)

Pacific halibut is taken throughout its range as a personal use (or subsistence) harvest by several fisheries. The primary harvests occur in the treaty Indian ceremonial and subsistence (C&S) fishery in the waters off northwest Washington State, the First Nations' Food, Social, and Ceremonial (FSC) fishery in British Columbia, and the subsistence fishery by rural residents and federally-recognized native tribes in Alaska. The coastwide personal use estimate for 2016 is 1.2 Mlbs (544.3 mt). New estimates for all areas are not available so proxy estimates are used: the allocation amount was used for the Area 2A treaty Indian ceremonial and subsistence fishery estimate and the 2014 estimate was used again for Alaska in 2016. The estimate for Area 2B remains unchanged.

- *Chapter 2.5 Retention of U32 Pacific halibut in the 2016 Area 4D/4E CDQ Pacific halibut fisheries* (p. 68-70)

[http://www.iphc.int/publications/rara/2016/IPHC-2016-RARA-26-R-2.5\\_Retention\\_of\\_U32.pdf](http://www.iphc.int/publications/rara/2016/IPHC-2016-RARA-26-R-2.5_Retention_of_U32.pdf)

Since 1998, commercial Pacific halibut vessels fishing for certain Community Development Quota (CDQ) organizations in Area 4E have been permitted by the IPHC to retain U32 Pacific halibut (less than 32 inches or 81.3 cm in fork length), under an exemption requested by the North Pacific Fishery Management Council. Beginning in 2002, the retention allowance was expanded to also include vessels that land all of their annual catch in IPHC Regulatory Areas 4D or 4E. The amount of retained U32 Pacific halibut has ranged from 3,590 pounds (1.6 t) in 1998 to as much as 30,267 pounds (13.7 t) in 2001. In 2016, a total of 5,457 pounds (2.5 t) was reported by three CDQ organizations, an increase of 17% from 2015. This harvest is in addition to the subsistence harvest reported by the Alaska Department of Fish and Game for these regulatory areas.

- **Bycatch Mortality from Other Fisheries**

- *Chapter 2.6 Incidental catch and mortality of Pacific halibut, 1990-2016* (p. 71-89)

[http://www.iphc.int/publications/rara/2016/IPHC-2016-RARA-26-R-2.6\\_Incidental\\_catch\\_of\\_halibut.pdf](http://www.iphc.int/publications/rara/2016/IPHC-2016-RARA-26-R-2.6_Incidental_catch_of_halibut.pdf)

Estimates of the bycatch mortality of Pacific halibut in 2016 totaled 7.1 million pounds (3,218 t) net weight, representing a decrease of 5% from 2015. Bycatch increased in some areas and decreased in others from 2015 values. In Area 2A, bycatch mortality rose 4%, although it continued to be low, mainly as a result of an individual quota program in the groundfish trawl fishery. Estimated bycatch in the Area 2B bottom trawl fishery in 2016 decreased by 21%. Bycatch trends were varied among Alaskan areas, with the largest changes being increases in Areas 3A (11%) and 3B (49%) resulting in several groundfish closures, a 12% decline in Area 4CDE (the area with the largest bycatch levels), and more modest increases or decreases in the other areas.

## INTERIM MEETING REPORT & RESPONSE

At the 92<sup>nd</sup> Session of the IPHC Interim Meeting (29-30 November 2016), the Commission reviewed the draft regulatory proposal from the IPHC Secretariat, and made the following comments/requests:

### ***State of the Fishery (2016)***

IM092, Para 5: The Commission **NOTED** paper IPHC-2016-IM092-04 which provided an update on the key fishery statistics from fisheries catching Pacific halibut during the 2016 fishing season, including the status of landings compared to catch limits adopted by the Commission.

IM092, Para 6: The Commission **REQUESTED** that for all future papers/presentations on the '*State of the Fishery*' to the Commission, that, in addition to commercial and recreational landings, subsistence landings also be reported, thereby providing a complete picture of recent fishery dynamics.

In response to the Commission's request detailed in paragraph 6 of the IM092 Report, the IPHC Secretariat have provided Tables 1 and 2 below. In addition, tribal, subsistence, First Nations, and community development quota (CDQ) landings are described in the IPHC's Report of Assessment and Research Activities at:

- *Chapter 2.1 2016 commercial fishery and regulation changes (p. 27-40)*  
[http://www.iphc.int/publications/rara/2016/IPHC-2016-RARA-26-R-2.1\\_Commercial\\_fishery.pdf](http://www.iphc.int/publications/rara/2016/IPHC-2016-RARA-26-R-2.1_Commercial_fishery.pdf)
  - See text and Tables 1 (Area 2A), 5 (Area 2A), and 7 (Area 2C)
- *Chapter 2.4 The personal use (subsistence) harvest of Pacific halibut through 2016 (p. 63-67)*  
[http://www.iphc.int/publications/rara/2016/IPHC-2016-RARA-26-R-2.4\\_Personal\\_use.pdf](http://www.iphc.int/publications/rara/2016/IPHC-2016-RARA-26-R-2.4_Personal_use.pdf)
  - See entire chapter
- *Chapter 2.5 Retention of U32 Pacific halibut in the 2016 Area 4D/4E CDQ Pacific halibut fisheries (p. 68-70)*  
[http://www.iphc.int/publications/rara/2016/IPHC-2016-RARA-26-R-2.5\\_Retention\\_of\\_U32.pdf](http://www.iphc.int/publications/rara/2016/IPHC-2016-RARA-26-R-2.5_Retention_of_U32.pdf)
  - See entire chapter

## RECOMMENDATION/S

That the Commission:

- 1) **NOTE** paper IPHC-2017-AM093-04 which provided the Commission with an update on the key fishery statistics from fisheries catching Pacific halibut during the 2016 fishing season, including the status of landings compared to catch limits adopted by the Commission.

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**ADDITIONAL DOCUMENTATION / REFERENCES**

Dykstra, C. 2017. 2016 Pacific halibut sport fishery review. Int. Pac. Halibut Comm. Report of Assessment and Research Activities 2016. IPHC-2016-RARA-26-R: 50-62.

Dykstra, C. 2017. Incidental catch and mortality of Pacific halibut, 1962-2016. Int. Pac. Halibut Comm. Report of Assessment and Research Activities 2016. IPHC-2016-RARA-26-R: 71-89.

Erikson, L. 2017. Retention of U32 Pacific halibut in the 2016 Area 4D/4E CDQ Pacific halibut fisheries. Int. Pac. Halibut Comm. Report of Assessment and Research Activities 2016. IPHC-2016-RARA-26-R: 68-70.

Goen, J., Erikson, L., and Kong, T. 2017. 2016 commercial fishery and regulation changes. Int. Pac. Halibut Comm. Report of Assessment and Research Activities 2016. IPHC-2016-RARA-26-R: 27-40.

Goen, J. and Stewart, I. 2017. Incidental mortality of Pacific halibut in the directed commercial halibut fishery (Wastage). Int. Pac. Halibut Comm. Report of Assessment and Research Activities 2016. IPHC-2016-RARA-26-R: 41-49.

Goen, J. 2017. The personal use (subsistence) harvest of Pacific halibut through 2016. Int. Pac. Halibut Comm. Report of Assessment and Research Activities 2016. IPHC-2016-RARA-26-R: 63-67.

Stewart, I. 2017. Overview of data sources for the Pacific halibut stock assessment and related analyses. Int. Pac. Halibut Comm. Report of Assessment and Research Activities 2016. IPHC-2016-RARA- 26-R: 279-364.

**Table 1.** The 2016 estimates of total removals (thousands of pounds, net weight), catch limits and catch of Pacific halibut by regulatory area<sup>1</sup>. Preliminary as of November 2016. Shaded cells included in catch total.

<b>Area</b>	<b>2A</b>	<b>2B</b>	<b>2C</b>	<b>3A</b>	<b>3B</b>	<b>4</b>	<b>Total</b>
Commercial landings	615	6,049	3,891	7,256	2,637	3,893	24,344
Commercial incidental mortality (wastage) <sup>13</sup>	39	227	120	375	234	183	1,178
Sport landings <sup>2</sup>	502	1,013	2,100 <sup>11</sup>	3,492 <sup>11</sup>	5	12	7,124
Sport landings from commercial leasing <sup>3</sup>	-	5	39	9	-	-	53
Sport incidental mortality <sup>4</sup>	3	68	74 <sup>12</sup>	59 <sup>12</sup>	-	-	204
Bycatch mortality <sup>5</sup>	98	258	30	2,040	979	3,691	7,095
Personal use (subsistence) <sup>6</sup>	34	405	428	231	18	88	1,204
IPHC Research landings	17	90	119	266	109	81	682
<b>Total Removals</b>	<b>1,308</b>	<b>8,115</b>	<b>6,801</b>	<b>13,728</b>	<b>3,982</b>	<b>7,948</b>	<b>41,884</b>
<b>2016 Catch Limits<sup>7</sup></b>	<b>1,140<sup>8</sup></b>	<b>7,300<sup>9</sup></b>	<b>4,950<sup>10</sup></b>	<b>9,600<sup>10</sup></b>	<b>2,710</b>	<b>4,190</b>	<b>29,890</b>
<b>2016 Catch Total</b>	<b>1,154<sup>8</sup></b>	<b>7,135<sup>9</sup></b>	<b>4,895<sup>10</sup></b>	<b>9,632<sup>10</sup></b>	<b>2,642</b>	<b>3,905</b>	<b>29,363</b>

<sup>1</sup> Columns and rows may not add to totals due to rounding.

<sup>2</sup> Alaska and Area 2B sport estimates are preliminary.

<sup>3</sup> Fish landed against transfers from commercial quota fisheries (XRQ in Area 2B, GAF in Areas 2C and 3A).

<sup>4</sup> Areas 2A based on previous 5 year average. Area 2B based on ratio of discards seen in 2C charter fishery applied to 2B catch because they have similar size limit regulations.

<sup>5</sup> Alaska bycatch estimates are preliminary and are updated in January each year for use in the IPHC catch tables.

<sup>6</sup> Includes 2014 Alaskan subsistence harvest estimates (tribal and rural SHARC holders). Area 4 includes 5,500 pounds of U32 halibut retained in 2016 Area 4DE Community Development Quota.

<sup>7</sup> Does not include pounds from the underage/overage programs in Area 2B or Alaska.

<sup>8</sup> Catch limit and catch reported include commercial, sport, and treaty subsistence landings.

<sup>9</sup> Catch limit and catch reported include commercial and sport (including commercial leasing) landings and sport incidental mortality.

<sup>10</sup> Catch limit and catch reported include commercial and sport guided/charter (including commercial leasing) landings and incidental mortality for all commercial and guided sport. Unguided sport landings and incidental mortality are not included.

<sup>11</sup> Sport landings for Areas 2C and 3A include values for both guided/charter and unguided/private sport as follows:

Area 2C guided 792,000 pounds, unguided 1,308,000 pounds

Area 3A guided 1,964,000 pounds, unguided 1,528,000 pounds

<sup>12</sup> Sport incidental mortality amounts for Areas 2C and 3A include values for both guided and unguided sport as follows:

Area 2C guided 53,000 pounds, unguided 21,000 pounds;

Area 3A guided 28,000 pounds, unguided 31,000 pounds.

<sup>13</sup>Includes estimate of wastage from IPHC research.

**Table 2.** Commercial fishing periods, number of fishing days, catch limits, commercial, research, and total landings (thousands of pounds, net weight) by regulatory area for the 2016 Pacific halibut commercial fishery (preliminary, as of November 8, 2016).

Area 2A	Fishing Period	Catch Limit	Length of Opening	Commercial Landings	Research Landings	Total Landings
Treaty Indian	Unrestricted: 3/19 – 3/21 3/20 – 3/21 3/21 – 3/23		39 hours	240		
	Restricted: 4/1-4/2		28 hours	53		
	Late Fishery 1-2, 11-12 Mar 18 May – 15 Aug 25 July – 2 Aug 12 Sep – 7 Nov		24 hours 1200 lb 3000 lb 437 lb	<u>69</u>		
Total		365.1		361		361
Incidental in Salmon Fishery	4/1 – 11/7	34.1	143 days	26		26
Incidental in Sablefish Fishery	4/1 – 11/7	49.7	152 days	30		30
Directed <sup>1</sup>	6/22		10 hours	90		
	7/6		10 hours	88		
	7/20		10 hours	<u>20</u>		
Directed Total		193.4		198		198
<b>2A Total</b>		<b>642.3</b>		<b>615</b>	<b>17</b>	<b>632</b>
Area	Fishing Period	Catch Limit	Adjusted Catch Limit <sup>2</sup>	Commercial Landings <sup>3</sup>	Research Landings	Total Landings <sup>4</sup>
2B	19 Mar – 7 Nov	6,199	6,087	6,049 <sup>4</sup>	90	6,139
2C	3/19 – 11/7	3,924	3,968	3,891 <sup>5</sup>	119	4,010
3A	3/19 – 11/7	7,336	7,407	7,256	266	7,522
3B	3/19 – 11/7	2,710	2,717	2,637	109	2,746
4A	3/19 – 11/7	1,390	1,405	1,343	32	1,375
4B	3/19 – 11/7	1,140	1,162	1,089	28	1,117
4C	3/19 – 11/7	733.6	740	402	7	409
4D	3/19 – 11/7	733.6	741	939 <sup>6,7</sup>	14	953
4E	3/19 – 11/7	192.8	193	120 <sup>7</sup>		120
Alaska Total		18,160	18,333	17,677	575	18,252
<b>Grand Total</b>		<b>25,001.3<sup>8</sup></b>	<b>25,062<sup>8</sup></b>	<b>24,344<sup>8</sup></b>	<b>682<sup>8</sup></b>	<b>25,026<sup>8</sup></b>

<sup>1</sup>Fishing period limits by vessel class.

<sup>2</sup>Includes adjustments from the underage/overage programs, and in 2B, quota held by DFO for First Nations through relinquishment processes, and the Use of Fish allocation.

<sup>3</sup>Includes pounds from November 9, 2016 Prior Notice of Landings in Alaska and hail-ins from Fishery Operations System in Canada.

<sup>4</sup>Includes the pounds that were landed by Native communal commercial licences (FL licences).

<sup>5</sup>Includes the pounds taken in the Metlakatla fishery within the Annette Islands Reserve.

<sup>6</sup>Area 4C IFQ and CDQ could be fished in Area 4D by NMFS and IPHC regulations.

<sup>7</sup>Area 4D CDQ could be fished in Area 4E by NMFS and IPHC regulations.

<sup>8</sup>Includes Area 2A catch limit and catch.

**Table 3.** Total preliminary 2016 Pacific halibut sports removal estimates (Mlb, net weight) by IPHC regulatory area. Includes catch of fish landed against lease transfers from commercial quota fisheries (Experimental Recreational Halibut Fishery (XRQ) in Area 2B and Guided Angler Fish (GAF) in Areas 2C and 3A).

Removal	Area 2A	Area 2B	Area 2C	Area 3A	Area 3B	Area 4	Total
All sport fisheries	0.502	1.013	2.100	3.492	0.005	0.012	7.124
Release mortality	0.003	0.068 <sup>a</sup>	0.074	0.059	-	-	0.204
Leased commercial	-	0.005 <sup>b</sup>	0.039	0.009	-	-	0.053
<b>Total</b>	<b>0.505</b>	<b>1.086</b>	<b>2.213</b>	<b>3.560</b>	<b>0.005</b>	<b>0.012</b>	<b>7.381</b>

<sup>a</sup> Based on ratio of discards seen in 2C charter fishery applied to 2B catch.

<sup>b</sup> Preliminary XRQ as reported through 9/18/2016.

**Figure 1.** IPHC regulatory area for the 2016 fishery.

