

## FMP Area Total Estimated Halibut Discard and Mortality (in net weight pounds)

Total Estimated Halibut Discards

ALL GOA TOTAL		2013				2014			
		Retained	Discard	PSC	Total Discard	Retained	Discard	PSC	Total Discard
Hook-and-Line	Halibut Target IFQ	16,228,706	15,583,611		15,583,611	12,011,152	9,968,379		9,968,379
	Sablefish Target IFQ	1,818,594	1,442,061	472,893	1,914,954	1,548,868	1,153,809	441,921	1,595,730
	Other Targets	61,881	1,596	2,482,032	2,483,628	69,152	16,923	2,971,256	2,988,179
Trawl	All Targets			3,051,138	3,051,138			3,342,258	3,342,258
<b>TOTAL</b>	<i>All Gear &amp; Targets*</i>	<b>18,109,181</b>	<b>17,027,268</b>	<b>6,006,063</b>	<b>23,033,331</b>	<b>13,629,172</b>	<b>11,139,111</b>	<b>6,755,435</b>	<b>17,894,546</b>

Total Estimated Halibut Mortality

ALL GOA Mortality		2013				2014			
		Retained	Discard	PSC	Total Mortality	Retained	Discard	PSC	Total Mortality
Hook-and-Line	Halibut Target IFQ	16,228,706	2,493,378		2,493,378	12,011,152	1,594,940		1,594,940
	Sablefish Target IFQ	1,818,594	158,627	52,018	210,645	1,548,868	126,919	48,611	175,530
	Other Targets	61,881	255	273,023	273,278	69,152	2,709	326,626	329,335
Trawl	All Targets			2,032,705	2,032,705			2,302,595	2,302,595
<b>TOTAL</b>	<i>All Gear &amp; Targets*</i>	<b>18,109,181</b>	<b>2,652,260</b>	<b>2,357,746</b>	<b>5,010,006</b>	<b>13,629,172</b>	<b>1,724,568</b>	<b>2,677,832</b>	<b>4,402,400</b>

Total Estimated Halibut Discards

ALL BSAI TOTAL		2013				2014			
		Retained	Discard	PSC	Total Discard	Retained	Discard	PSC	Total Discard
Hook-and-Line	Halibut Target IFQ	3,691,034	1,012,625		1,012,625	2,730,471	1,441,290		1,441,290
	Sablefish Target IFQ	88,338	3,377	104,869	108,246	159,826	13,432	53,758	67,052
	Other Targets	3,342		9,792,610	9,792,610	1,012	4,222	8,414,846	8,419,068
Trawl	All Targets			6,342,148	6,342,148			6,186,526	6,186,526
<b>TOTAL</b>	<i>All Gear &amp; Targets*</i>	<b>3,782,714</b>	<b>1,016,002</b>	<b>16,239,627</b>	<b>17,255,629</b>	<b>2,891,309</b>	<b>1,458,944</b>	<b>14,655,130</b>	<b>16,113,936</b>

Total Estimated Halibut Mortality

ALL BSAI Mortality		2013				2014			
		Retained	Discard	PSC	Total Mortality	Retained	Discard	PSC	Total Mortality
Hook-and-Line	Halibut Target IFQ	3,691,034	162,020		162,020	2,730,471	230,607		230,607
	Sablefish Target IFQ	88,338		9,438	9,046	159,826	1,477	4,837	5,284
	Other Targets	3,342		894,642	894,642	1,012		754,841	755,517
Trawl	All Targets			5,093,920	4,130,696			5,009,693	4,375,034
<b>TOTAL</b>	<i>All Gear &amp; Targets*</i>	<b>3,782,714</b>	<b>162,020</b>	<b>5,998,000</b>	<b>5,196,404</b>	<b>2,891,309</b>	<b>232,084</b>	<b>5,769,371</b>	<b>5,366,442</b>

\*Does not include Pot and Jig Gear

Discard column are at-sea discard calculated for trips with retained halibut

PSC column are deliveries with no retained halibut

Halibut discards are based on best available information collected by the North Pacific Observer program. Methods used by observers may overestimate total discards because average weights contain both retained and discarded halibut.

• IFQ Halibut discard mortality rate is 16%

• Gilroy, H.L. 2012. Incidental mortality of halibut in the commercial halibut fishery (Wastage). Int. Pac. Halibut Comm. Report of Assessment and Research Activities

• IFQ Sablefish and Pacific cod discard mortality rate is 11%. Other mortality rates published in the Harvest Specifications

## IPHC Area 2 & 3 Total Estimated Halibut Discard and Mortality (in net weight pounds)

*Total Estimated Halibut Discards*

2C Total		2013				2014			
		Retained	Discard	PSC	Total Discard	Retained	Discard	PSC	Total Discard
Hook-and-Line	Halibut Target IFQ	3,844,986	2,460,761		2,460,761	3,866,414	2,518,283		2,518,283
	Sablefish Target IFQ	546,293	396,039	117,649	513,688	452,619	273,282	111,962	385,244
	Other Targets	9,743		81,946	81,946	5,343	4,067	112,787	116,854
Trawl	All Targets								
<b>TOTAL</b>	<i>All Gear &amp; Targets*</i>	<b>4,401,022</b>	<b>2,856,800</b>	<b>199,595</b>	<b>3,056,395</b>	<b>4,324,376</b>	<b>2,795,632</b>	<b>224,749</b>	<b>3,020,381</b>

*Total Estimated Halibut Mortality*

2C Mortality		2013				2014			
		Retained	Discard	PSC	Total Mortality	Retained	Discard	PSC	Total Mortality
Hook-and-Line	Halibut Target IFQ	3,844,986	393,722		393,722	3,866,414	402,925		402,925
	Sablefish Target IFQ	546,293	43,564	12,941	56,505	452,619	30,061	12,316	42,377
	Other Targets	9,743		9,014	9,014	5,343	651	12,194	12,845
Trawl	All Targets								
<b>TOTAL</b>	<i>All Gear &amp; Targets*</i>	<b>4,401,022</b>	<b>437,286</b>	<b>21,955</b>	<b>459,241</b>	<b>4,324,376</b>	<b>433,637</b>	<b>24,510</b>	<b>458,147</b>

*Total Estimated Halibut Discards*

3A Total		2013				2014			
		Retained	Discard	PSC	Total Discard	Retained	Discard	PSC	Total Discard
Hook-and-Line	Halibut Target IFQ	8,634,111	8,053,746		8,053,746	5,569,035	4,735,683		4,735,683
	Sablefish Target IFQ	1,079,490	976,532	231,511	1,208,043	954,026	736,947	144,300	881,247
	Other Targets	28,821	1,596	1,570,748	1,572,344	35,501	12,309	1,365,299	1,377,608
Trawl	All Targets			1,919,754	1,919,754			1,965,466	1,965,466
<b>TOTAL</b>	<i>All Gear &amp; Targets*</i>	<b>9,742,422</b>	<b>9,031,874</b>	<b>3,722,013</b>	<b>12,753,887</b>	<b>6,558,562</b>	<b>5,484,939</b>	<b>3,475,065</b>	<b>8,960,004</b>

*Total Estimated Halibut Mortality*

3A Mortality		2013				2014			
		Retained	Discard	PSC	Total Mortality	Retained	Discard	PSC	Total Mortality
Hook-and-Line	Halibut Target IFQ	8,634,111	1,288,599		1,288,599	5,569,035	757,709		757,709
	Sablefish Target IFQ	1,079,490	107,419	25,466	132,885	954,026	81,064	15,873	96,937
	Other Targets	28,821	255	172,782	173,037	35,501	1,970	150,183	152,153
Trawl	All Targets			1,283,249				1,360,553	1,360,553
<b>TOTAL</b>	<i>All Gear &amp; Targets*</i>	<b>9,742,422</b>	<b>1,396,273</b>	<b>1,481,497</b>	<b>1,594,521</b>	<b>6,558,562</b>	<b>840,743</b>	<b>1,526,609</b>	<b>2,367,352</b>

*Total Estimated Halibut Discards*

3B Total		2013				2014			
		Retained	Discard	PSC	Total Discard	Retained	Discard	PSC	Total Discard
Hook-and-Line	Halibut Target IFQ	3,749,609	5,069,104		5,069,104	2,575,703	2,714,413		2,714,413
	Sablefish Target IFQ	192,811	69,490	123,733	193,223	142,223	143,580	185,659	329,239
	Other Targets	23,317		829,338	829,338	28,308	547	1,493,170	1,493,717
Trawl	All Targets			1,131,384	1,131,384			1,376,792	1,376,792
<b>TOTAL</b>	<i>All Gear &amp; Targets*</i>	<b>3,965,737</b>	<b>5,138,594</b>	<b>2,084,455</b>	<b>7,223,049</b>	<b>2,746,234</b>	<b>2,858,540</b>	<b>3,055,621</b>	<b>5,914,161</b>

*Total Estimated Halibut Mortality*

3B Mortality		2013				2014			
		Retained	Discard	PSC	Total Mortality	Retained	Discard	PSC	Total Mortality
Hook-and-Line	Halibut Target IFQ	3,749,609	811,057		811,057	2,575,703	434,306		434,306
	Sablefish Target IFQ	192,811	7,644	13,611	21,255	142,223	15,794	20,422	36,216
	Other Targets	23,317		91,227	91,227	28,308	88	164,249	164,337
Trawl	All Targets			749,456				942,042	942,042
<b>TOTAL</b>	<i>All Gear &amp; Targets*</i>	<b>3,965,737</b>	<b>818,701</b>	<b>854,294</b>	<b>923,539</b>	<b>2,746,234</b>	<b>450,188</b>	<b>1,126,713</b>	<b>1,576,901</b>

\*Does not include Pot and Jig Gear

Discard column are at-sea discard calculated for trips with retained halibut

PSC column are deliveries with no retained halibut

Halibut discards are based on best available information collected by the North Pacific Observer program. Methods used by observers may overestimate total discards because average weights contain both retained and discarded halibut.

• IFQ Halibut discard mortality rate is 16%

• Gilroy, H.L. 2012. *Incidental mortality of halibut in the commercial halibut fishery (Wastage)*. Int. Pac. Halibut Comm. Report of Assessment and Research Activities

• IFQ Sablefish and Pacific cod discard mortality rate is 11%. Other mortality rates published in the Harvest Specifications.

## IPHC Area 4 Total Estimated Halibut Discard and Mortality (in net weight pounds)

### Total Estimated Halibut Discards

4A		2013				2014			
		Retained	Discard	PSC	Total Discard	Retained	Discard	PSC	Total Discard
Hook-and-Line	Halibut Target IFQ	621,965	188,538		188,538	424,542	246,343		246,343
	Sablefish Target IFQ	7,996	3,225	2,871	6,096	21,270	3,992	6,437	10,429
	Other Targets	1,731	0	3,201,369	3,201,369	1,012	4,222	2,231,104	2,235,326
Trawl	All Targets			1,252,181	1,252,181			835,928	835,928
<b>TOTAL</b>	<i>All Gear &amp; Targets*</i>	<b>631,692</b>	<b>191,763</b>	<b>4,456,421</b>	<b>4,648,184</b>	<b>446,824</b>	<b>254,557</b>	<b>3,073,469</b>	<b>3,328,026</b>

### Total Estimated Halibut Mortality

4A Mortality		2013				2014			
		Retained	Discard	PSC	Total Mortality	Retained	Discard	PSC	Total Mortality
Hook-and-Line	Halibut Target IFQ	621,965	30,166		30,166	424,542	39,415		39,415
	Sablefish Target IFQ	7,996	355	258	613	21,270	439	579	1,018
	Other Targets	1,731	0	291,996	291,996	1,012	676	202,732	203,408
Trawl	All Targets			963,224	963,224			634,659	634,659
<b>TOTAL</b>	<i>All Gear &amp; Targets*</i>	<b>631,692</b>	<b>30,521</b>	<b>1,255,478</b>	<b>1,285,999</b>	<b>446,824</b>	<b>40,530</b>	<b>837,970</b>	<b>878,500</b>

### Total Estimated Halibut Discards

4B Total		2013				2014			
		Retained	Discard	PSC	Total Discard	Retained	Discard	PSC	Total Discard
Hook-and-Line	Halibut Target IFQ	1,282,704	355,194		355,194	1,025,116	542,211		542,211
	Sablefish Target IFQ	80,342	152	100,325	100,477	138,556	9,440	47,183	56,623
	Other Targets	464		82,171	82,171			239,704	239,704
Trawl	All Targets			528,439	528,439			444,944	444,944
<b>TOTAL</b>	<i>All Gear &amp; Targets*</i>	<b>1,363,510</b>	<b>355,346</b>	<b>710,935</b>	<b>1,066,281</b>	<b>1,163,672</b>	<b>551,651</b>	<b>731,831</b>	<b>1,283,482</b>

### Total Estimated Halibut Mortality

4B Mortality		2013				2014			
		Retained	Discard	PSC	Total Mortality	Retained	Discard	PSC	Total Mortality
Hook-and-Line	Halibut Target IFQ	1,282,704	56,831		56,831	1,025,116	86,754		86,754
	Sablefish Target IFQ	80,342	17	9,029	9,046	138,556	1,038	4,246	5,284
	Other Targets	464		7,552	7,552			10,389	10,389
Trawl	All Targets			406,948	406,948			342,193	342,193
<b>TOTAL</b>	<i>All Gear &amp; Targets*</i>	<b>1,363,510</b>	<b>56,848</b>	<b>423,529</b>	<b>480,377</b>	<b>1,163,672</b>	<b>87,792</b>	<b>356,828</b>	<b>444,620</b>

### Total Estimated Halibut Discards

4CDE Total		2013				2014			
		Retained	Discard	PSC	Total Discard	Retained	Discard	PSC	Total Discard
Hook-and-Line	Halibut Target IFQ	1,786,365	468,893		468,893	1,280,813	652,736		652,736
	Sablefish Target IFQ			1,673	1,673			138	138
	Other Targets	1,147		3,816,807	3,816,807			4,720,135	4,720,135
Trawl	All Targets			2,056,978	2,056,978			2,713,674	2,713,674
<b>TOTAL</b>	<i>All Gear &amp; Targets*</i>	<b>1,787,512</b>	<b>468,893</b>	<b>5,875,458</b>	<b>6,344,351</b>	<b>1,280,813</b>	<b>652,736</b>	<b>7,433,947</b>	<b>8,086,683</b>

### Total Estimated Halibut Mortality

4CDE Mortality		2013				2014			
		Retained	Discard	PSC	Total Mortality	Retained	Discard	PSC	Total Mortality
Hook-and-Line	Halibut Target IFQ	1,786,365	75,023		75,023	1,280,813	104,438		104,438
	Sablefish Target IFQ			151	151			12	12
	Other Targets	1,147		349,905	349,905	0		430,491	430,491
Trawl	All Targets			1,667,052	1,667,052			2,230,668	2,230,668
<b>TOTAL</b>	<i>All Gear &amp; Targets*</i>	<b>1,787,512</b>	<b>75,023</b>	<b>2,017,108</b>	<b>2,092,131</b>	<b>1,280,813</b>	<b>104,438</b>	<b>2,661,171</b>	<b>2,765,609</b>

\*Does not include Pot and Jig Gear

Discard column are at-sea discard calculated for trips with retained halibut

PSC column are deliveries with no retained halibut

Halibut discards are based on best available information collected by the North Pacific Observer program. Methods used by observers may overestimate total discards because average weights contain both retained and discarded halibut.

- IFQ Halibut discard mortality rate is 16%
  - Gilroy, H.L. 2012. *Incidental mortality of halibut in the commercial halibut fishery (Wastage)*. Int. Pac. Halibut Comm. Report of Assessment and Research Activities
- IFQ Sablefish and Pacific cod discard mortality rate is 11%. Other mortality rates published in the Harvest Specifications

## IPHC Area 4 Total Estimated Halibut Discard and Mortality (in net weight pounds)

### Total Estimated Halibut Discards

4CL Total		2013				2014			
		Retained	Discard	PSC	Total Discard	Retained	Discard	PSC	Total Discard
Hook-and-Line	Halibut Target IFQ								
	Sablefish Target IFQ								
	Other Targets			2,692,263	2,692,263			1,223,903	1,223,903
Trawl	All Targets			2,504,550	2,504,550			2,191,980	2,191,980
<b>TOTAL</b>	<i>All Gear &amp; Targets*</i>			5,196,813	5,196,813			3,415,883	3,415,883

### Total Estimated Halibut Mortality

4CL Mortality		2013				2014			
		Retained	Discard	PSC	Total Mortality	Retained	Discard	PSC	Total Mortality
	Halibut Target IFQ								
	Sablefish Target IFQ								
	Other Targets			245,189	245,189			111,229	111,229
	Trawl			2,056,696	2,056,696			1,802,173	1,802,173
<b>TOTAL</b>	<i>All Gear &amp; Targets*</i>			2,301,885	2,301,885			1,913,402	1,913,402

\*Does not include Pot and Jig Gear

Discard column are at-sea discard calculated for trips with retained halibut

PSC column are deliveries with no retained halibut

Halibut discards are based on best available information collected by the North Pacific Observer program. Methods used by observers may overestimate total discards because average weights contain both retained and discarded halibut.

- IFQ Halibut discard mortality rate is 16%
  - Gilroy, H.L. 2012. *Incidental mortality of halibut in the commercial halibut fishery (Wastage)*. Int. Pac. Halibut Comm. Report of Assessment and Research Activities
- IFQ Sablefish and Pacific cod discard mortality rate is 11%. Other mortality rates published in the Harvest Specifications.