IPHC-2018-AM094-AR10 Rev_1
Recieved: 20 Dec 2017 & 11 Jan 2018

2017 Canadian Recreational Fishery Halibut Catch Report

December 13, 2017

Report Prepared for the
International Pacific Halibut Commission (IPHC)

Submitted by:
Fisheries and Oceans Canada (DFO)
401 Burrard St.
Vancouver, British Columbia
Canada

Contents

1. SUMMARY 3

1.1. Harvest 3

Table 1. Estimated Harvest in Pieces and Pounds by Regional Area 3

Figure 1. Percentage of Halibut harvested by piece and weight by Regional Area 3

1.2. Biological Samples 4

Table 2. Number of Halibut Biologically Sampled by Regional Area 4

Figure 2. Halibut sampled for length or weight by Regional Area 4

1.3. Fishery Logistics 4

2. MANAGEMENT, MONITORING AND POLICY DEVELOPMENT 5

2.1. 2017 Recreational Fishery Management Plan 5

2.2. Halibut Experimental Recreational Fishery Program 5

3. RECREATIONAL CATCH MONITORING AND REPORTING PROGRAMS 6

3.1. Background 6

3.2. 2016 Recreational Fishery Catch Monitoring 6

3.3. Haida Gwaii Survey 6

3.4. North Coast Creel Survey 7

3.5. Central Coast 7

3.6. South Coast Creel Survey 7

Table 3. South Coast surveys in inside waters (Johnstone and Georgia and Juan de Fuca Straits) 8

Table 4. South Coast surveys in outside waters (West Coast of Vancouver Island) 8

3.7. Biological Sampling 8

4. DATA 9

Table 5. Summary of the 2017 Recreational Halibut Catch by Pacific Fishery Management Area (PFMA) 9

Table 6. Recreational Halibut Monthly Catch Estimates (net wt. lbs) for 2015, 2016 and 2017 10

Table 7. 2017 Estimated Halibut Catch in Pieces by Area and Month 11
Table 8: 2017 Average Net Weight Estimates by Area and Month 12
Table 9. 2017 Estimated Halibut Catch in Net Weight (lbs) by Area and Month 13

REFERENCES 14

1. SUMMARY

This report summarizes the 2017 harvest and biological data from the Canadian recreational Halibut fishery in the tidal waters of British Columbia (BC). The recreational total allowable catch for 2017 was 1,118,029 pounds[1] and the estimated harvest is 1,137,867 pounds (19,838 pound overage). The estimated harvest by pieces is 68,127.

The 2017 season opened on February 1 and closed on September 6. Traditional monitoring and reporting programs, such as logbooks, lodge manifests and recreational creel surveys, collected catch, effort and biological data during peak months and areas of the fishery. Estimates of catch in months and areas not monitored by traditional programs were generated from data collected during DFO's internet-based recreational survey (iREC). Initiated in 2012, the iREC survey collects catch and effort information from recreational licence holders on a monthly basis throughout the recreational fishing year[2].

Final estimates are anticipated to be available by the spring of 2018. Estimated harvest in pieces and net weight by regional areas are noted below.

1.1. Harvest

Area	Pieces	Pounds
North Coast	38,151	533,436
Central Coast	2,184	28,229
South Coast	27,792	576,202
Totals	**68,127**	**1,137,867**

Table 1. Estimated Harvest in Pieces and Pounds by Regional Area

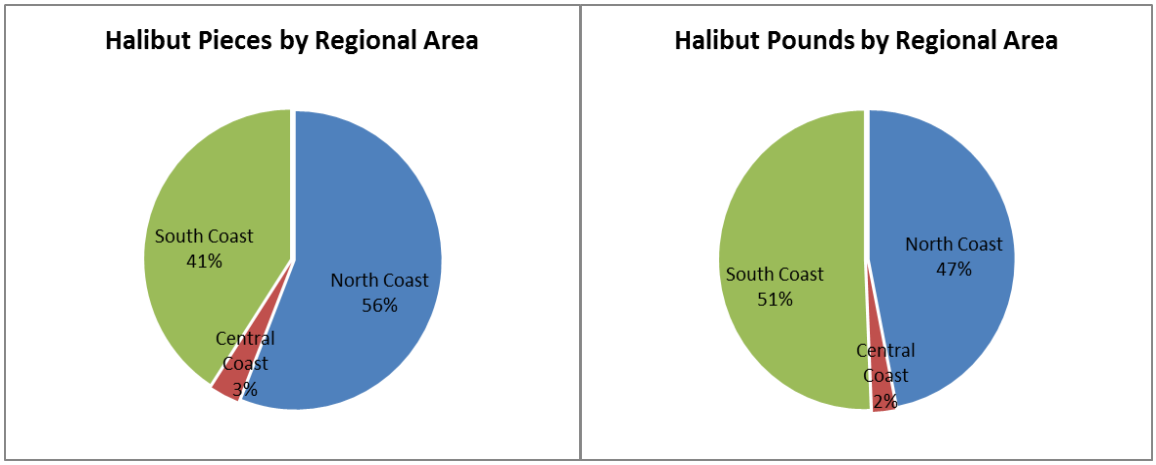

Figure 1. Percentage of Halibut harvested by piece and weight by Regional Area

[1] Pounds in this document refer to net weight (head off, dressed) pounds. See Biological Sampling section for the equations used to convert round weight (head on, undressed) and fork length to net weight.
[2] For more information on the Internet Recreational Effort and Catch (iREC) Survey please visit the following internet site; http://www.dfo-mpo.gc.ca/csas-sccs/publications/sar-as/2015/2015_059-eng.html.

1.2. Biological Samples

A coast wide total of 21,414 halibut were biologically sampled for either length or weight in 2017, representing 31% of the estimated harvest. The number of biological samples collected by regional areas is noted below.

Area	Samples
North Coast	17,233
Central Coast	2,132
South Coast	2,049
Totals	**21,414**

Table 2. Number of Halibut Biologically Sampled by Regional Area

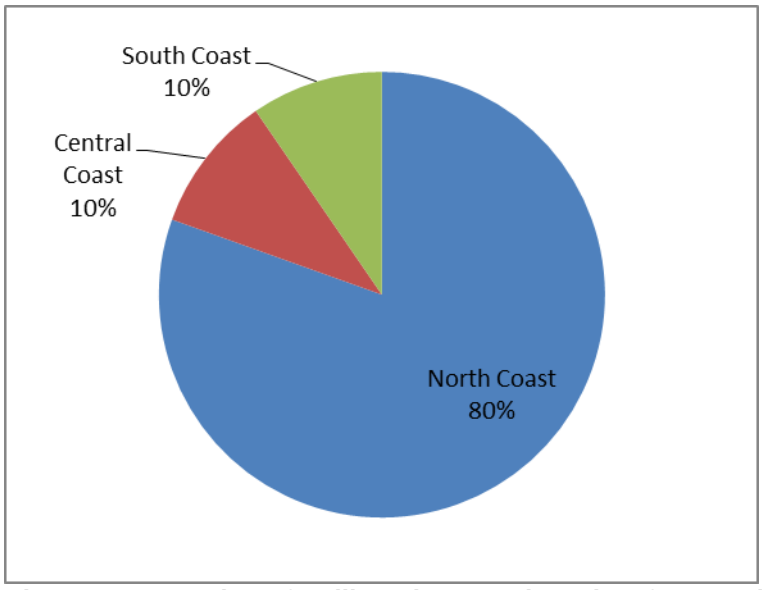

Figure 2. Proportion of Halibut size samples taken from each regional area.

1.3. Fishery Logistics

Catch monitoring of the recreational fishery in BC is extremely challenging given the large geographic area (numerous remote areas), the diversity of fishing opportunities and the diversity of participants.

Starting in 2015, Tidal Waters Sport Fishing Licences included Conditions of Licence that make catch reporting mandatory. Specifically, the conditions state that "*The licence holder shall provide accurate information regarding their catch and fishing activities upon request of a Creel Surveyor or an on-line surveyor, authorities designated under s.61(5) of the Fisheries Act".* Conditions of Licence also included regulations related to possession limits, size limits and an annual limit.

In response to the IPHC's 2012 request for data collection programs on recreational discards, Fisheries and Oceans Canada reviewed its existing recreational halibut catch and release information and examined options for the estimation of release mortalities. DFO obtains information from anglers on the number of halibut releases through creel surveys, logbooks and internet surveys. In BC, anglers are not required to keep any records of released Halibut. Fishers are not required to record sizes of released Halibut in part because Such a practice may increase release mortality and present challenges in terms of angler safety, and provide data of variable quality.. Size limits and angler preference are some reasons why released halibut may be a different average size compared to the average size of retained fish. Given these various limitations of the information available, DFO does not currently use recreational release data for the purposes of recreational halibut management or allocation decisions.

DFO estimates recreational fishery discard mortality based on the ratio of recreational halibut discard mortality to landed catch in adjacent management areas. The current ratio is 3.6%. Applying this ratio to the 2017 landed catch results in an estimate of 40,963 pounds. This discard mortality is accounted for before the 2B recreational catch limit is established and thus is not included in the calculation of catch relative to the recreational catch limit described elsewhere in this report.

DFO continues to work with the recreational fishery sector in BC to improve recreational fishery monitoring and catch reporting. While the focus remains on strengthening data collection and monitoring for retained catch in recreational fisheries, new reporting tools such as the iREC survey of recreational harvesters include questions about anglers' releases. As the survey continues to be refined and improved, DFO will be exploring how the data gathered on releases may be used to inform management.

2. MANAGEMENT, MONITORING and POLICY DEVELOPMENT

2.1. 2017 Recreational Fishery Management Plan

The current domestic sharing arrangement between commercial and recreational fisheries is 85% of the resource allocated to the commercial sector and 15% to the recreational sector, after accounting for First Nations' Food, Social, and Ceremonial requirements. The 15% recreational share in 2017 equates to a total allowable catch of 1,118,029 pounds.

The recreational halibut fishery opened on February 1.The management measures included:

- A maximum length of 133 cm (approx. 52 inches)
- A daily limit of one and a possession limit of two, only one of which may be greater than 83cm (35 inches) was implemented on Feb 1, 2017 and remained in effect for the rest of the season.
- An annual limit of six (6), to be recorded on the Tidal Waters Licence.
- All halibut retained must be recorded on the Tidal Waters Licence plus the area from which each halibut is caught and its length
- A mandatory Condition of Licence to report catch when surveyed.

The opening was for all Pacific Fishery Management Areas (PFMAs) with the exception of portions of Area 121. Anglers were not permitted to fish for nor retain halibut in Area 121 outside the twelve nautical mile limit and in the waters of Swiftsure Bank.

DFO and the Halibut Sub-committee of the Sport Fishing Advisory Board (SFAB) reviewed in-season catch estimates on a monthly basis. By the end of August, it was determined that the estimated harvest to date plus the forecasted catch to the end of September 6 would likely exceed the 1,118,029 pound Total Allowable Catch. On September 4, DFO announced the fishery would close as of September 6, 2017.

For 2018, the SFAB is considering various management options they may recommend to DFO. These options include considering changes to:

- Minimum and Maximum size limits
- Individual annual limits
- Daily and total possession limits
- Season length
- Time and area closures

2.2. Halibut Experimental Recreational Fishery Program

In 2011, the Department piloted an experimental fishery program where interested recreational stakeholders, such as individual recreational harvesters, lodges, charters, guides or marinas, could request an experimental licence that would allow them to lease quota from commercial harvesters through a market based transfer mechanism. The experimental licence permits licence holders to fish halibut beyond the limits and times of the regular recreational licence.

In 2012, the Minister of Fisheries and Oceans Canada confirmed that the experimental licence would continue to be available and announced the Department was moving forward with a regulatory proposal to continue the experimental fishery for the long term.

This year, the experimental fishery commenced April 1 and remained open until December 31, 2017. For the 2017 season, 11,287 pounds of halibut quota was transferred from the commercial sector to experimental licence holders, of which 5,942 pounds of halibut was caught.

3. RECREATIONAL CATCH MONITORING and REPORTING PROGRAMS

3.1. Background

Marine creel surveys in BC began in 1980. Originally developed to estimate the catch of chinook and coho salmon in the Strait of Georgia, the geographical scope expanded to include Barkley Sound and Alberni Inlet in 1984, the entire West Coast of Vancouver Island (WCVI) in 1991, Haida Gwaii and the rest of the North Coast in 1995, and most recently Johnstone Strait in 1998. The objectives of the creel survey have been expanded to include estimates for most recreationally caught finfish, including halibut. In 2016, creel programs were implemented in peak fishing times and areas with specific emphasis on halibut and chinook fishing activities.

Lodges operating along the coast provide census data to the Department through the logbook program, manifest data or the electronic log (elog) pilot program. The Department also receives data from some independent guides and avid anglers via logbook programs. These data are combined with the creel survey data to produce estimates of catch for each PFMA by month where traditional monitoring and reporting programs exist.

To address monitoring gaps in the recreational fishery the Department has been using and enhancing an online survey since 2012. The Internet Recreational Effort and Catch (iREC) survey was peer reviewed by the Canadian Scientific Advisory Secretariat (CSAS) in 2015. The iREC survey was developed to provide catch and effort estimates for all areas, months, fishing methods, and species harvested by the recreational sector. To minimize the effect of potential biases in iREC survey estimates, a calibration procedure was developed to relate iREC survey estimates and creel survey estimates in areas and times not covered by a creel survey.

3.2. 2016 Recreational Fishery Catch Monitoring

DFO has been working with the Sport Fishing Advisory Board on an implementation plan to strengthen recreational fishery monitoring and catch reporting in the Pacific Region. For the 2017 recreational halibut fishery, DFO used estimates from three sources; the iREC survey, logbook and lodge manifest program, and creel surveys.

As in previous years, traditional monitoring and catch reporting programs such as logbook, lodge manifest and the creel survey were used during peak months and areas of the recreational fishery. In areas and months where traditional programs were not implemented in 2017, DFO used the average iREC survey bias corrected catch estimates from the most recent years for which these estimates were available at the beginning of the season (the 2013, 2014 and 2015 surveys). Catch estimates in these areas and months will be updated with 2017 survey results when bias corrected estimates became available in the summer.

3.3. Haida Gwaii

Haida Gwaii recreational monitoring and reporting programs include a lodge logbook program and a creel survey. Lodge logbook data accounts for approximately 85% of the estimated halibut catch in Areas 1 and 2.

The Haida Gwaii Creel Survey (HGCS) estimates recreational catch from Areas 1 and 2 surrounding Haida Gwaii. Since 1995, the program has conducted creel surveys to estimate catch from recreational anglers in Masset Inlet, Naden Harbour, Langara Island, Skidegate Channel, Cartwright Sound and Rennell Sound. Fish caught in Haida Gwaii by recreational harvesters are also subject to random audits by the Haida Watchmen (Guardians) through the HGCS, which operates in the main fishing months in Area 1 and parts of Area 2.

Information collected from the creel survey is combined with data submitted through the lodge logbook program to generate total catch estimates for Areas 1 and 2. In 2017, 16,223 halibut were sampled for either length or weight.

3.4. North Coast Creel Survey

The North Coast Creel Survey program collects catch information from the recreational fishery surrounding Prince Rupert and Port Edward on the North Coast of B.C. It is focused in Areas 3 and 4, comprising the waters of Chatham Sound between the mouths of the Nass and Skeena Rivers. Chatham Sound is bordered by the Alaska/BC border to the north, Dundas and Stephens Island groups to the west and Porcher Island to the south, covering an area of approximately 4,200 km^2.

The North Coast Creel Survey program has a hybrid design with four components: an access point angler interview survey, an aerial effort count survey, a trailer census and a fishing lodge logbook program. The study design is similar to the one used in the South Coast Creel Survey.

Access point angler interview surveys collect catch information, angling activity times and biological samples of selected species from anglers at the completion of the fishing trip. The data is used to calculate species specific Catch per Unit Effort (CPUE) values and create angler activity profiles. Aerial surveys are conducted to capture the 'instantaneous' counts of the number of boats fishing at the time of the flight and are expanded using the angler effort profiles generated from the ground surveys to produce an estimate of total daily effort. Lodges in the area submit logbooks to DFO post-season. Lodge data is treated as a complete census of catch, is summed and added to the creel estimates to get an estimate of total catch. To prevent bias in the effort estimates from lodge boats counted during the aerial surveys, a temporal-spatial analysis is conducted of lodge logbook data for days when the overflight occurs and any boats that were fishing in the survey area during the time of the flight are removed from the final count of boats fishing in the area.

In 2017, 1,010 halibut were sampled for either length or weight.

3.5. Central Coast

Catch information in Areas 7, 8 and 9 on the Central Coast is collected from lodges and some charter operators operating in these areas, primarily through the logbook program. Most lodges participate in the logbook program and collect catch, effort and biological data that are submitted to the Department on a monthly basis. There is no creel program to estimate the number of halibut caught by independent anglers or guides in these areas due to challenges with implementing a survey in this remote and geographically dispersed fishery.

This year 17 lodges participated in the halibut logbook and biological sampling project. The three main objectives of the project are to collect logbook and halibut weight data, to check the scales at the lodges for make, model and accuracy, and to verify the weights being recorded in the logbooks. In 2017, 2,132 biological samples were reported.

3.6. South Coast Creel Survey

In the southern waters of BC creel surveys are the main tool to estimate catch of halibut. Surveys are conducted in select fishery strata based on: the highest catch of halibut and chinook, the highest effort, in-season management requirements, and potential impact on stocks of concern. Creel surveys consist of effort surveys and estimation of catch per boat trip based on fishery observers at selected ramps and marinas.

Data collected during angler interviews are recorded in the South Coast Marine Creel Survey form and provide average catch per unit effort by species and fishing times, while aerial counts from chartered aircraft capture 'instantaneous' counts of the number of recreational boats fishing on randomly selected dates. Fishing times obtained from angler interviews are used to generate daily fishing activity profiles which are used to expand the 'instantaneous' aerial counts to estimate the number of boats fishing each day. The estimate of boats fishing is multiplied by the average catch to estimate the total number of halibut caught each day. Estimates are generated monthly, or occasionally for two week periods where samples rates are high. The estimates are stratified by weekend and holidays vs. weekday dates. In addition, logbook catch data submitted by remote fishing lodges, independent guides and expert anglers are incorporated into creel

estimates post season. The survey in Kyuquot Sound (PFMA's 26, 126) is entirely logbook-based, as fishing from lodges represents essentially all recreational effort in this remote area; in 2017 estimates were improved through use of iREC survey information on the proportion of guided to unguided trips.

Catch and effort is estimated by creel sub-area and rolled up to DFO PFMAs by month. South Coast waters include PFMAs11 through 29. The Port Hardy survey also collects information from recreational fishing trips in Area 10.

Creel surveys are active during the peak season of recreational angling and vary in duration depending on location. The spatial and temporal coverage of the survey program can vary year to year in response to budget and fishery priorities. In 2017 surveys were conducted in months outlined in Tables 3 and 4 below.

Table 3. South Coast surveys in inside waters (Johnstone and Georgia and Juan de Fuca Straits)

Location	PFMAs	Duration
Port Hardy	11, 12	Jun. – Aug.
Campbell River	13, 14	Jun.- Sep.*
Sunshine Coast	15, 16	Jun. – Sep.*
Nanaimo	17, 18	Jun. - Sep.*
Victoria	19, 20	Mar. - Sep.
Vancouver	28, 29	Jun. – Sep.*

Note:
*coverage may be incomplete during these months

Table 4. South Coast surveys in outside waters (West Coast of Vancouver Island)

Location	PFMAs	Duration
Port Renfrew	20, 21, 121	Jun. – Sep.
Barkley Sound	123	Jun. – Sep.
Port Alberni	23	Jun. – Sep.
Tofino	124, 123	Jul. – Sep.
Tahisis/Nootka	25, 125	Jul. – Sep.
Kyuquot	26, 126	Jun. – Aug.
Winter Harbour	27, 127	Jul.– Aug.

For further details on the methodology and results of the South Coast Creel survey, including catch and effort estimates with level of uncertainty, please visit:

http://www-ops2.pac.dfo-mpo.gc.ca/xnet/content/salmon/sc%20stad/bulletins.htm

In 2017, 2,049 halibut were sampled for length or weights during the South Coast Creel survey interviews.

3.7. Biological Sampling

A total of 21,414 halibut were sampled for lengths or weights, representing 31% of the total estimated coastwide harvest. Samples were collected from lodges, guides and independent anglers interviewed at access points and converted to net weight, head off and dressed, using the following formulas developed by the IPHC:

$$\text{Net Weight} = \text{Fork Length (cm)}^{3.24} \times (6.921 \times 10^{-6})$$
$$\text{Net Weight} = \text{Round Weight} \times 0.75$$

Average net weights were calculated for each Area on a monthly basis to generate estimates of total net weight by month and area caught in the fishery.

4. DATA

The following tables provide detailed catch and biological information collected during the 2016 recreational halibut fishery in BC. Note: these figures are preliminary and subject to change.

Table 5. Summary of the 2017 Recreational Halibut Catch by Pacific Fishery Management Area (PFMA)

Regional Area	DFO PFMA	Est. Halibut Piece Count	Est. Halibut Total Net Wt. (lbs)
North Coast	1	13,350	154,301
	2	6,150	94,459
	3	6,075	94,767
	4	9,485	144,168
	5/6	3,091	45,741
Central Coast	7/8/9	2,184	28,229
South Coast	10/11	1,620	34,832
	12	1,614	23,548
	13/14	1,088	13,534
	15-18/28/29	608	7,846
	19	3,118	91,139
	20	768	16,646
	21/121	4,981	90,741
	23/123	5,003	83,766
	24/124	1,115	28,694
	25/125	2,857	61,746
	26/126	3,296	82,333
	27/127	1,724	41,377
Total Landed in Canada		68,127	1,137,867
Rec TAC (15% of total CDN)			1,118,029
Balance (net wt lbs).			-19,838

Table 6. Recreational Halibut Monthly Catch Estimates (net wt. lbs) for 2015, 2016 and 2017

Month	Net Weight (lbs)			Cumulative Net Weight (lbs)		
	2015	**2016**	**2017**	**2015**	**2016**	**2017**
Feb	8,082	2,880	17,199	919	2,880	17,199
March	18,389	30,615	17,868	10,353	33,495	35,068
April	47,765	22,213	16,985	25,598	55,708	52,053
May	22,768	53,720	62,654	70,451	109,428	114,706
June	211,587	241,328	273,084	265,534	350,756	387,790
July	337,436	358,114	437,991	580,609	708,870	825,782
Aug	302,395	254,620	285,783	878,048	963,490	1,111,565
Sept	23,795	97,213	26,302	908,212	1,060,703	1,137,867
Oct	4,782	23,064	0	910,432	1,083,767	1,137,867
Nov	3,833	10,603	0	911,946	1,094,371	1,137,867
Dec	3,833	1,091	0	913,461	1,095,461	1,137,867
Total	980,832	1,095,461	1,137,867			
Recreational Allocation (15% of Canadian TAC)						1,118,029
Estimated Total Catch						1,137,867
Balance (net wt lbs)						-19,838

Table 7. 2017 Estimated Halibut Catch in Pieces by Area and Month

PFMA		Feb	March	April	May	June	July	August	Sep (1-6)	Oct	Nov	Dec	Total
1		0	0	0	300	3,700	5,100	3,800	450	0	0	0	13,350
2		0	0	0	400	1,850	2,000	1,800	100	0	0	0	6,150
3		0	0	9	57	1,440	2,788	1,753	28	0	0	0	6,075
4		0	215	68	452	3,193	3,775	1,657	124	0	0	0	9,485
5/6		0	11	29	229	771	907	1,091	53	0	0	0	3,091
7/8/9		0	0	0	65	309	894	895	21	0	0	0	2,184
10/11		142	0	5	67	491	600	243	72	0	0	0	1,620
12		0	26	185	375	354	330	230	114	0	0	0	1,614
13/14		88	83	16	159	128	75	516	23	0	0	0	1,088
15-18/28/29		0	354	13	169	0	0	67	5	0	0	0	608
19		469	138	324	409	900	257	472	149	0	0	0	3,118
20		14	12	56	15	314	222	135	0	0	0	0	768
21/121		4	150	89	357	377	3,303	676	24	0	0	0	4,981
23/123		0	8	65	345	568	2,510	1,503	4	0	0	0	5,003
24/124		7	20	14	138	324	340	197	74	0	0	0	1,115
25/125		0	4	21	82	739	1,086	806	118	0	0	0	2,857
26/126		0	11	0	37	566	1,594	1,039	50	0	0	0	3,296
27/127		7	0	0	75	408	735	465	34	0	0	0	1,724
2017	**Monthly**	**733**	**1,032**	**895**	**3,731**	**16,432**	**26,516**	**17,344**	**1,443**	**0**	**0**	**0**	**68,127**
Totals	**Cum.**	**733**	**1,765**	**2,660**	**6,391**	**22,824**	**49,339**	**66,684**	**68,127**	**68,127**	**68,127**	**68,127**	

Note:
Estimates in shaded cells are three year (2013-15) averages of iREC survey bias corrected estimates for those month-areas.

1.

Table 8: 2017 Average Net Weight Estimates by Area and Month

PFMA	Feburary	March	April	May	June	July	August	Sept	Oct	Nov	Dec
1	13	13	13	14	11	11	12	14	11	11	11
2	16	16	16	16	16	15	15	15	15	15	15
3	16	16	16	16	16	16	16	16	16	16	16
4	15	15	15	15	15	15	15	15	15	15	15
5/6	14	14	14	14	14	15	15	15	15	15	15
7/8/9	14	14	14	17	11	15	15	19	15	15	15
10/11	13	13	13	13	13	13	11	19	15	15	15
12	13	13	13	13	13	12	13	12	12	12	12
13/14	21	21	21	19	23	20	22	21	21	21	21
15-18/28/29	12	12	12	9	15	18	20	19	19	19	19
19	13	13	13	13	13	12	12	12	12	12	12
20	13	13	13	13	13	12	12	12	12	12	12
21/121	26	27	26	33	30	32	31	25	28	28	28
23/123	20	20	19	23	17	29	23	26	26	26	26
24/124	23	23	23	16	30	17	17	17	17	17	17
25/125	16	16	16	16	16	16	18	17	17	17	17
26/126	26	26	26	26	26	29	19	24	24	24	24
27/127	15	15	15	15	15	23	26	25	25	25	25

Table 9. 2017 Estimated Halibut Catch in Net Weight (lbs) by Area and Month

PFMA		Feburary	March	April	May	June	July	August	Sept	Oct	Nov	Dec	Total
1		0	0	0	4,118	41,903	57,375	44,460	6,446	0	0	0	154,301
2		0	0	0	6,210	28,721	30,900	27,135	1,493	0	0	0	94,459
3		0	0	139	887	22,464	43,493	27,347	438	0	0	0	94,767
4		0	3,275	1,038	6,876	48,534	57,380	25,186	1,879	0	0	0	144,168
5/6		0	150	411	3,205	10,794	13,792	16,576	813	0	0	0	45,741
7/8/9		0	0	0	878	3,773	11,835	11,377	366	0	0	0	28,229
10/11		2,991	0	107	1,237	11,511	12,183	5,288	1,514	0	0	0	34,832
12		0	303	2,190	3,320	5,239	5,871	4,496	2,130	0	0	0	23,548
13/14		1,152	1,080	203	2,072	1,668	935	6,139	285	0	0	0	13,534
15-18/28/29		0	4,610	175	2,205	0	0	799	58	0	0	0	7,846
19		12,368	3,674	8,446	13,303	26,738	8,259	14,667	3,684	0	0	0	91,139
20		278	236	1,083	338	5,269	6,364	3,078	0	0	0	0	16,646
21/121		105	3,507	1,447	5,784	11,461	56,471	11,557	410	0	0	0	90,741
23/123		0	137	1,048	5,597	9,210	40,659	27,046	68	0	0	0	83,766
24/124		187	516	377	3,649	8,541	9,954	3,684	1,785	0	0	0	28,694
25/125		0	66	321	1,237	11,190	25,212	20,823	2,898	0	0	0	61,746
26/126		0	315	0	1,049	16,220	39,017	24,538	1,196	0	0	0	82,333
27/127		118	0	0	691	9,849	18,294	11,588	837	0	0	0	41,377
2017 Totals	**Monthly**	**17,199**	**17,868**	**16,985**	**62,654**	**273,084**	**437,991**	**285,783**	**26,302**	**0**	**0**	**0**	**1,137,867**
	Cum.	**17,199**	**35,068**	**52,053**	**114,706**	**387,790**	**825,782**	**1,111,565**	**1,137,867**	**1,137,867**	**1,137,867**	**1,137,867**	

References

Zetterberg, P.R., Maher, J.M., and Watson, N.M., 2009. Strait of Georgia recreational fishery creel survey finfish data, 2002 to 2006. Can. Data Rep. Fish. Aquat. Sci. 1212: xix + 299 p.

Van Tongeren, V.A. 2009. North Coast (Areas 3 & 4) Creel Survey Statistics for Salmon and Groundfish. Can. Manusr. Rep. Fish. Aquat. Sci. 2907:97p.

Bocking, Robert C. and Gary F. Searing, March 2000. Haida Gwaii Creel Survey of Ocean Sport Fisheries, Area 1 and 2W. LGL Limited.

South Coast Stock Assessment Creel Survey Bulletin #1 – Program Overview, 19 July 2017.

DFO. 2015. Evaluation of the Internet Recreational Effort and Catch (iREC) Survey methods.
DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2015/059. http://www.dfo-mpo.gc.ca/csas-sccs/publications/sar-as/2015/2015_059-eng.html