

Final 2015 Sport Halibut Harvest Estimates for Areas 2C and 3A

Alaska Department of Fish and Game

1. Area 2C

Table 1.1. Area 2C sport halibut harvest estimates by sector and subarea, 2015.

Subarea	Charter			Non-charter (unguided)		
	No. Fish ^a	Avg. Wt. ^b	Yield (Mlb)	No. Fish ^a	Avg. Wt. ^b	Yield (Mlb)
Ketchikan	7,762	11.40	0.088	10,337	15.33	0.158
POW Island	16,322	9.68	0.158	11,258	12.67	0.143
PBG/WRG	2,121	18.73	0.040	16,945	19.28	0.327
Sitka	23,611	11.78	0.278	4,089	17.90	0.073
Jun/Haines/Skag	7,687	10.83	0.083	15,593	12.46	0.194
Glacier Bay	8,153	14.76	0.120	15,594	27.67	0.431
Area 2C	65,656	11.69	0.768	73,816	17.97	1.327

^a-Number of fish harvested in charter fishery is from logbook data, estimate for non-charter fishery is from the ADF&G Statewide Harvest Survey.

^b-Average net weight (headed and gutted).

Table 1.2. Approximate 95% confidence intervals for yield estimates (million pounds).

User	Yield	StdErr	Lower 95%	Upper 95%
Charter	0.768	0.013	0.743	0.793
Non-Charter	1.327	0.077	1.176	1.477
Overall Sport	2.094	0.078	1.942	2.247

Table 1.3. Comparison of preliminary and final estimates of sport halibut removals in Area 2C in 2015 (million pounds).

Sector	Removal	Preliminary (Nov 2015)	Final	Difference
Charter	Yield	0.800	0.768	0.032
	O26 Release mort (waste)	0.047	0.046	0.001
	Total	0.847	0.814	0.033
Non-charter	Yield	1.124	1.327	-0.203
	All Release mort (waste)	0.019	0.018	0.001
	Total	1.143	1.345	-0.202

Table 1.4. Performance of Area 2C charter management measures recommended annually by the North Pacific Fishery Management Council, 2012-2015.

Year	Measures	Management Type	Allocation (Mlb)	Removals ^a (Mlb)	Under(-)/Over(+) Allocation	
					Mlb	Percent
2012	One fish, U45"-O68" size limit	GHL	0.931	0.605	-0.326	-35.0%
2013	One fish, U45"-O68" size limit	GHL	0.788	0.762	-0.026	-3.3%
2014	One fish, U44"-O76" size limit	CSP	0.761	0.827	+0.066	+8.7%
2015	One fish, ≤ 42" or ≥ 80", CSP provisions.	CSP	0.851	0.814	-0.037	-4.4%

^a-Removals includes harvest and O26 release mortality.

Table 1.5. Area 2C sport halibut yield (excluding release mortality) by sector since 2000. Charter harvest (no. fish) was as reported in charter logbooks in 2014 and 2015 and estimated using the ADF&G mail survey before 2014.

Year	Charter			Non-Charter			Total Sport Harvest		
	Harvest (no. fish)	Avg. Wt. (lb net)	Yield (Mlb)	Harvest (no. fish)	Avg. Wt. (lb net)	Yield (Mlb)	Harvest (no. fish)	Avg. Wt. (lb net)	Yield (Mlb)
2000	57,208	19.75	1.130	54,432	20.59	1.121	111,640	20.16	2.251
2001	66,435	18.10	1.202	43,519	16.56	0.721	109,954	17.49	1.923
2002	64,614	19.74	1.275	40,199	20.25	0.814	104,813	19.94	2.090
2003	73,784	19.13	1.412	45,697	18.52	0.846	119,481	18.90	2.258
2004	84,327	20.75	1.750	62,989	18.84	1.187	147,316	19.93	2.937
2005	102,206	19.10	1.952	60,364	14.01	0.845	162,570	17.21	2.798
2006	90,471	19.94	1.804	50,520	14.30	0.723	140,991	17.92	2.526
2007	109,835	17.46	1.918	68,498	16.51	1.131	178,333	17.10	3.049
2008	102,965	19.42	1.999	66,296	19.08	1.265	169,261	19.28	3.264
2009	53,602	23.31	1.249	65,549	17.29	1.133	119,151	20.00	2.383
2010	41,202	26.36	1.086	52,896	16.72	0.885	94,098	20.94	1.971
2011	36,545	9.40	0.344	42,202	16.24	0.685	78,747	13.07	1.029
2012	42,436	14.27	0.605	54,696	17.87	0.977	97,132	16.30	1.583
2013	52,675	14.47	0.762	78,078	17.43	1.361	130,753	16.24	2.123
2014	65,036	12.04	0.783	69,060	16.95	1.170	134,096	14.57	1.954
2015	65,656	11.69	0.768	73,816	17.97	1.327	139,472	15.02	2.094

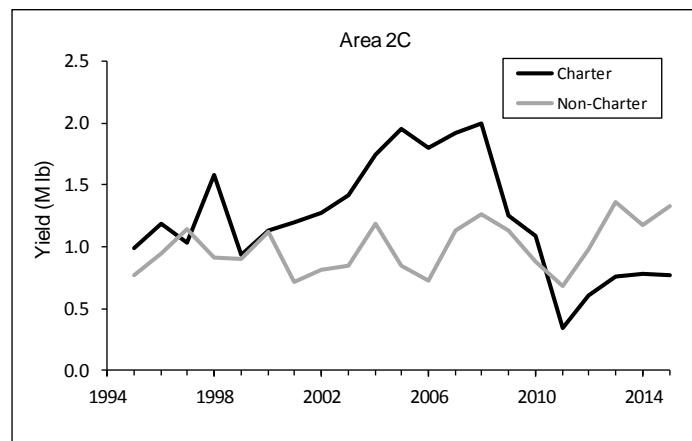


Figure 1.1. Charter and non-charter halibut yield (M lb) in Area 2C since 1995.

2. Area 3A

Table 2.1. Area 3A sport halibut harvest estimates by sector and subarea, 2015.

Subarea	Charter			Non-charter (unguided)		
	No. Fish ^a	Avg. Wt. ^b	Yield (Mlb)	No. Fish ^a	Avg. Wt. ^b	Yield (Mlb)
Central Cook Inlet	35,834	12.75	0.457	34,937	11.47	0.401
Lower Cook Inlet	59,110	9.57	0.566	57,365	9.56	0.548
Kodiak	8,845	11.70	0.104	7,902	15.21	0.120
North Gulf Coast	46,321	12.91	0.598	14,367	11.16	0.160
Eastern PWS	4,296	20.22	0.087	9,855	17.74	0.175
Western PWS	4,635	18.88	0.088	9,867	15.75	0.155
Yakutat	3,210	32.51	0.104	1,932	28.72	0.055
Glacier Bay	1,381	46.38	0.064	--	--	--
Area 3A	163,632	12.63	2.067	136,225	11.86	1.616

^a-Number of fish harvested in charter fishery is from logbook data, estimate for non-charter fishery is from the ADF&G Statewide Harvest Survey.

^b-Average net weight (headed and gutted).

Table 2.2 Approximate 95% confidence intervals for yield estimates (million pounds).

User	Yield	StdErr	Lower 95%	Upper 95%
Charter	2.067	0.079	1.912	2.221
Non-Charter	1.616	0.084	1.450	1.781
Overall Sport	3.682	0.115	3.456	3.909

Table 2.3 Comparison of preliminary and final estimates of sport halibut removals in Area 3A in 2015 (million pounds).

Sector	Removal	Preliminary (Nov 2015)	Final	Difference
Charter	Yield	2.035	2.067	-0.031
	O26 Release mort (waste)	0.027	0.027	0.000
	Total	2.063	2.094	-0.031
Non-charter	Yield	1.495	1.616	-0.121
	All Release mort (waste)	0.035	0.037	-0.002
	Total	1.529	1.652	-0.123

Table 2.4. Performance of Area 3A charter management measures recommended annually by the North Pacific Fishery Management Council, 2012-2015.

Year	Measures	Mgmt. Type	Allocation (Mlb)	Removals ^a (Mlb)	Under(-)/Over(+) Allocation	
					Mlb	Percent
2012	Two fish, no size limit, crew harvest allowed.	GHL	3.103	2.284	-0.819	-26.4%
2013	Two fish, no size limit, crew harvest allowed.	GHL	2.734	2.514	-0.220	-8.0%
2014	Two fish, one < 29", one trip per vessel per day, misc. CSP provisions.	CSP	1.782	2.066	+0.284	+15.9%
2015	Two fish, one < 29", one trip per vessel per day, Thursdays closed 6/15-8/31, 5-fish annual limit, misc.CSP provisions.	CSP	1.890	2.094	+0.204	+10.8%

^a-Removals includes harvest and O26 release mortality.

Table 2.5. Area 3A sport halibut yield (excluding release mortality) by sector since 2000. Charter harvest (no. fish) was as reported in charter logbooks in 2014 and 2015 and estimated using the ADF&G mail survey before 2014.

Year	Charter			Non-Charter			Total Sport Harvest		
	Harvest (no. fish)	Avg. Wt. (lb net)	Yield (Mlb)	Harvest (no. fish)	Avg. Wt. (lb net)	Yield (Mlb)	Harvest (no. fish)	Avg. Wt. (lb net)	Yield (Mlb)
2000	159,609	19.67	3.140	128,427	16.86	2.165	288,036	18.42	5.305
2001	163,349	19.18	3.132	90,249	17.09	1.543	253,598	18.43	4.675
2002	149,608	18.20	2.724	93,240	15.86	1.478	242,848	17.30	4.202
2003	163,629	20.67	3.382	118,004	17.34	2.046	281,633	19.27	5.427
2004	197,208	18.60	3.668	134,960	14.35	1.937	332,168	16.88	5.606
2005	206,902	17.83	3.689	127,086	15.61	1.984	333,988	16.98	5.672
2006	204,115	17.95	3.664	114,887	14.57	1.674	319,002	16.73	5.337
2007	236,133	16.95	4.002	166,338	13.71	2.281	402,471	15.61	6.283
2008	198,108	17.05	3.378	145,286	13.37	1.942	343,394	15.49	5.320
2009	167,599	16.31	2.734	150,205	13.47	2.023	317,804	14.97	4.758
2010	177,460	15.20	2.698	124,088	12.79	1.587	301,548	14.21	4.285
2011	184,293	15.16	2.793	128,464	12.57	1.615	312,757	14.09	4.408
2012	173,582	13.16	2.284	113,359	11.83	1.341	286,941	12.64	3.626
2013	199,248	12.62	2.514	121,568	11.94	1.452	320,816	12.36	3.966
2014	174,351	11.67	2.034	127,125	12.06	1.533	301,476	11.83	3.568
2015	163,632	12.63	2.067	136,225	11.86	1.616	299,857	12.28	3.682

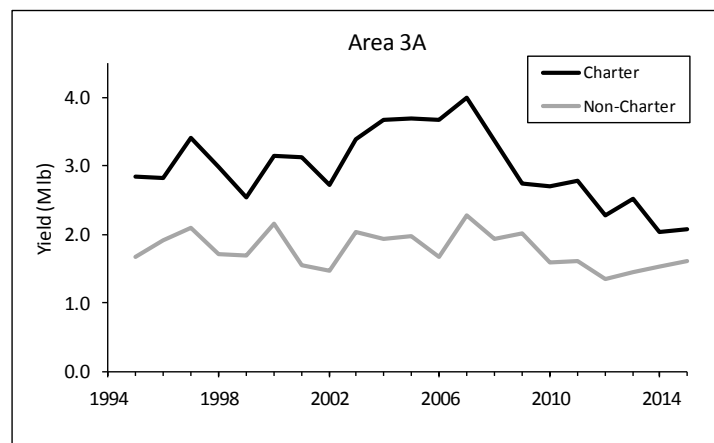


Figure 2.1. Charter and non-charter halibut yield (M lb) in Area 3A since 1995.

3. Comparison of Charter Logbook and Mail Survey Estimates

Table 3.1. Comparison of estimates of charter halibut yield based on numbers of fish reported harvested in charter logbooks and estimated via the ADF&G Statewide Harvest Survey (SWHS), 2006-2015. Logbook data include all reported harvest by clients, comps, and crew.

Area	Year	Logbook		SWHS	
		Yield (Mlb)	StdError	Yield (Mlb)	StdError
2C	2006	2.063	0.052	1.804	0.089
	2007	2.015	0.028	1.918	0.085
	2008	1.974	0.025	1.999	0.099
	2009	1.187	0.022	1.249	0.071
	2010	1.249	0.040	1.086	0.077
	2011	0.452	0.005	0.344	0.015
	2012	0.728	0.025	0.605	0.034
	2013	0.825	0.026	0.762	0.037
	2014	0.783	0.014	0.677	0.027
	2015	0.768	0.013	0.739	0.030
	3A	2006	4.689	0.072	3.664
2007		4.229	0.059	4.002	0.120
2008		3.865	0.063	3.378	0.142
2009		3.044	0.055	2.734	0.133
2010		3.238	0.123	2.698	0.116
2011		3.308	0.133	2.793	0.129
2012		2.802	0.087	2.284	0.087
2013		2.724	0.085	2.514	0.093
2014		2.034	0.069	1.858	0.076
2015		2.067	0.079	1.918	0.082

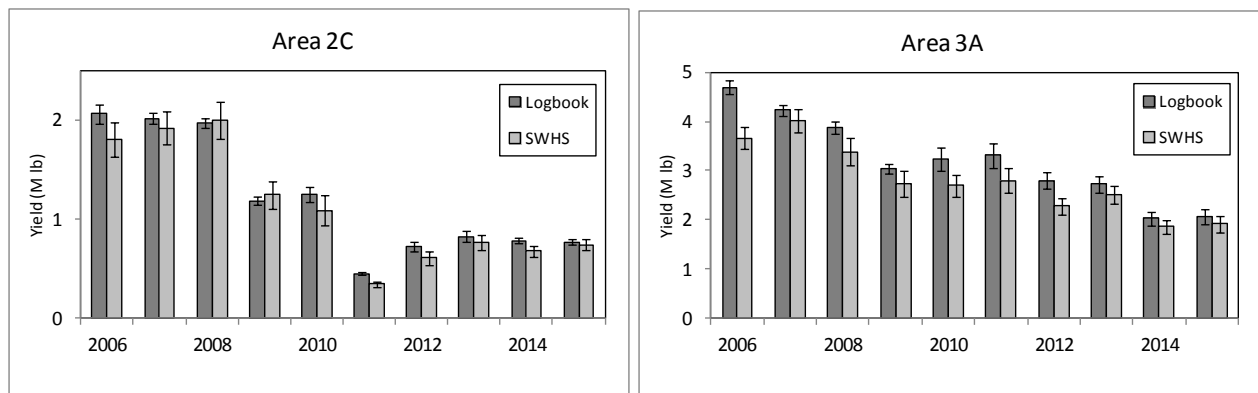


Figure 3.1. Comparison of logbook- and SWHS-based estimates of charter halibut yield in Areas 2C and 3A (with approx 95% confidence intervals).