

Notes: S=significant in model; s*=significant but excluded from final model due to interactions with other variables; ns=not significant; x=included in at least one model but significance not reported; d=differences discussed; blank=not discussed or not included in model; †year and vessel loaded as main effects and interaction; BBAL=black-browed albatross; GHAL=grey-headed albatross; WAAL= wandering albatross; WCPE=white-chinned petrel; Ψ=significance of wind variables and swell height reversed when analysis limited to spring subset of data; ‡=season defined based on BBAL breeding cycle.

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Supplemental Material – Table 2 Mean seabird bycatch rates (birds / 1 000 hooks), standard errors (below mean), number of vessels and sample size (sets and hooks) for categorical variables analyzed in Alaska demersal longline fisheries.

	Vessels	Sets	Sampled Hooks (1 000s)	Total Seabird	Fulmar	Gull	Laysan Albatross	Black-footed Albatross	Albatross Unid.	Shear-water
Target Fishery										
Cod	89	61 413	258 760	0.09135 0.00227	0.05481 0.00176	0.01883 0.00086	0.00241 0.00020	0.00017 0.00005	0.00017 0.00004	0.00310 0.00027
Sablefish	133	9 536	18 434	0.05645 0.00304	0.02300 0.00218	0.00475 0.00071	0.00878 0.00097	0.01117 0.00115	0.00535 0.00098	0.00097 0.00027
Turbot	82	5 119	14 397	0.08363 0.00583	0.03976 0.00358	0.00924 0.00172	0.02357 0.00330	0.00039 0.00031	0.00041 0.00027	0.00645 0.00146
Large Geographic Region										
Bering Sea	89	55 614	245 941	0.09394 0.00240	0.05560 0.00183	0.02058 0.00095	0.00236 0.00022	0.00009 0.00003	0.00007 0.00002	0.00298 0.00024
Aleutian Islands	67	12 687	28 820	0.06925 0.00402	0.03835 0.00319	0.00530 0.00083	0.01444 0.00145	0.00075 0.00024	0.00069 0.00020	0.00441 0.00096
Gulf of Alaska	137	10 626	21 101	0.05510 0.00290	0.02300 0.00199	0.00575 0.00100	0.00627 0.00078	0.01117 0.00111	0.00496 0.00089	0.00123 0.00028
NMFS Management Area										
509	44	9 011	34 190	0.11722 0.00751	0.06064 0.00530	0.03694 0.00284	0.00032 0.00014	0.00000 0.00000	0.00008 0.00006	0.00277 0.00057
513	48	4 935	27 508	0.10622 0.01096	0.07044 0.01003	0.02027 0.00217	0.00072 0.00020	0.00000 0.00000	0.00000 0.00000	0.00282 0.00055
516	25	686	3 037	0.02221 0.00538	0.00795 0.00248	0.01058 0.00354	0.00000 0.00000	0.00000 0.00000	0.00000 0.00000	0.00000 0.00000
517	59	10 400	42 574	0.10427 0.00679	0.06012 0.00481	0.03044 0.00346	0.00270 0.00052	0.00013 0.00008	0.00000 0.00000	0.00225 0.00038
518	62	2 166	4 413	0.07645 0.01108	0.05096 0.01002	0.00257 0.00092	0.01148 0.00264	0.00094 0.00067	0.00000 0.00000	0.00660 0.00273
519	55	1 144	2 517	0.16089 0.02353	0.05515 0.01019	0.06181 0.01525	0.00752 0.00532	0.00022 0.00022	0.00000 0.00000	0.01329 0.00408

Supplemental Material – Table 2 (con't)

	Vessels	Sets	Sampled Hooks (1 000s)	Total Seabird	Fulmar	Gull	Laysan Albatross	Black- footed Albatross	Albatross Unid.	Shear- water
521	62	23 196	114 039	0.08378 0.00257	0.05213 0.00199	0.01233 0.00085	0.00222 0.00029	0.00005 0.00003	0.00013 0.00004	0.00257 0.00035
523	49	2 832	11 405	0.05163 0.00542	0.03452 0.00487	0.00541 0.00093	0.00351 0.00091	0.00000 0.00000	0.00000 0.00000	0.00433 0.00103
524	31	1 245	6 292	0.08420 0.01154	0.07003 0.01085	0.00809 0.00226	0.00139 0.00061	0.00000 0.00000	0.00000 0.00000	0.00161 0.00063
541	65	6 514	15 706	0.10440 0.00706	0.06347 0.00591	0.00892 0.00155	0.01541 0.00159	0.00118 0.00044	0.00111 0.00036	0.00574 0.00175
542	48	4 058	7 390	0.04267 0.00523	0.01506 0.00291	0.00203 0.00068	0.01866 0.00370	0.00037 0.00028	0.00039 0.00023	0.00339 0.00093
543	20	2 114	5 720	0.01197 0.00179	0.00565 0.00117	0.00042 0.00027	0.00334 0.00099	0.00015 0.00015	0.00000 0.00000	0.00229 0.00089
610	68	3 763	8 644	0.04576 0.00352	0.01835 0.00219	0.00193 0.00077	0.01253 0.00188	0.00515 0.00111	0.00315 0.00084	0.00193 0.00062
620	45	953	2 011	0.06855 0.01371	0.03465 0.01117	0.01027 0.00629	0.00848 0.00325	0.00594 0.00228	0.00535 0.00260	0.00059 0.00059
630	102	3 221	5 806	0.05524 0.00535	0.02847 0.00399	0.00831 0.00229	0.00297 0.00091	0.00933 0.00170	0.00136 0.00065	0.00086 0.00041
640	73	1 506	2 707	0.05620 0.00777	0.02244 0.00548	0.01023 0.00237	0.00050 0.00036	0.01806 0.00357	0.00262 0.00189	0.00122 0.00075
650	62	1 183	1 933	0.07217 0.01091	0.01422 0.00488	0.00163 0.00085	0.00089 0.00063	0.03079 0.00636	0.02322 0.00660	0.00049 0.00049
Year										
1995	125	10 761	39 615	0.12094 0.00524	0.05428 0.00354	0.02065 0.00186	0.00454 0.00061	0.00242 0.00039	0.00530 0.00090	0.00327 0.00070
1996	112	9 938	37 202	0.05605 0.00317	0.03316 0.00247	0.00729 0.00078	0.00406 0.00064	0.00518 0.00086	0.00042 0.00012	0.00327 0.00112
1997	98	10 450	42 682	0.08458 0.00500	0.06084 0.00413	0.01300 0.00180	0.00327 0.00059	0.00076 0.00028	0.00008 0.00005	0.00113 0.00026
1998	96	11 467	43 577	0.13318 0.00676	0.07527 0.00466	0.02960 0.00324	0.00995 0.00147	0.00104 0.00032	0.00008 0.00005	0.00591 0.00066

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	Vessels	Sets	Sampled Hooks (1 000s)	Total Seabird	Fulmar	Gull	Laysan Albatross	Black- footed Albatross	Albatross Unid.	Shear- water
1999	89	10 360	39 970	0.07893 0.00504	0.04350 0.00384	0.01599 0.00172	0.00681 0.00089	0.00137 0.00041	0.00000 0.00000	0.00279 0.00040
2000	93	12 044	42 831	0.08194 0.00532	0.05049 0.00453	0.01688 0.00147	0.00280 0.00041	0.00125 0.00034	0.00011 0.00009	0.00228 0.00034
2001	91	13 907	49 985	0.04415 0.00284	0.02530 0.00238	0.00964 0.00098	0.00281 0.00049	0.00047 0.00015	0.00006 0.00005	0.00223 0.00055
Month										
January	42	6 707	31 130	0.07681 0.00479	0.03479 0.00321	0.02835 0.00279	0.00195 0.00043	0.00006 0.00004	0.00003 0.00003	0.00089 0.00037
February	50	7 250	31 349	0.06138 0.00587	0.03946 0.00488	0.00712 0.00091	0.00220 0.00061	0.00000 0.00000	0.00002 0.00002	0.00317 0.00150
March	71	9 527	37 113	0.06350 0.00455	0.04338 0.00372	0.00824 0.00112	0.00200 0.00039	0.00022 0.00010	0.00005 0.00004	0.00002 0.00002
April	96	8 975	31 222	0.06817 0.00372	0.04283 0.00298	0.00759 0.00081	0.00675 0.00101	0.00190 0.00043	0.00040 0.00015	0.00143 0.00073
May	117	8 970	25 969	0.09509 0.00473	0.05475 0.00354	0.01057 0.00122	0.01578 0.00174	0.00386 0.00073	0.00078 0.00027	0.00594 0.00101
June	90	3 724	8 233	0.04925 0.00457	0.02229 0.00315	0.00048 0.00022	0.01479 0.00252	0.00810 0.00182	0.00140 0.00049	0.00061 0.00030
July	55	1 630	3 651	0.02918 0.00477	0.01588 0.00329	0.00000 0.00000	0.00671 0.00308	0.00388 0.00115	0.00000 0.00000	0.00000 0.00000
August	76	3 042	9 694	0.01963 0.00253	0.00445 0.00099	0.00081 0.00066	0.00159 0.00067	0.00595 0.00148	0.00083 0.00046	0.00407 0.00086
September	91	9 648	37 372	0.03098 0.00226	0.01699 0.00200	0.00235 0.00046	0.00053 0.00017	0.00148 0.00040	0.00087 0.00032	0.00612 0.00060
October	74	9 844	39 421	0.09131 0.00498	0.05335 0.00415	0.01566 0.00144	0.00392 0.00081	0.00086 0.00028	0.00379 0.00088	0.00368 0.00053
November	60	6 484	26 879	0.23872 0.01359	0.15160 0.01086	0.05152 0.00466	0.00228 0.00046	0.00023 0.00017	0.00005 0.00005	0.00295 0.00049
December	41	3 126	13 829	0.19898 0.01581	0.07052 0.00703	0.08775 0.01092	0.00044 0.00021	0.00000 0.00000	0.00000 0.00000	0.00332 0.00091

Supplemental Material – Table 2 (con't)

	Vessels	Sets	Sampled Hooks (1 000s)	Total Seabird	Fulmar	Gull	Laysan Albatross	Black- footed Albatross	Albatross Unid.	Shear- water
Breeding - Fulmar (restricted to cod fishery)										
Non-breeding (Dec-Apr)		33 039			0.04485					
					0.00194					
Breeding (May-Oct)		22 389			0.04143					
					0.00224					
Transition (Nov)		5 985			0.15983					
					0.01172					
Breeding - Gull (restricted to cod fishery)										
Non-breeding (Oct-Apr)		48 008				0.02290				
						0.00109				
Breeding (May-Aug)		5 209				0.00696				
						0.00142				
Transition (Sep)		8 196				0.00255				
						0.00051				