

Table S1. Density of fish schools (km^{-1}) based on lidar and visual estimates of birds and marine mammal densities (km^{-1}) for each of the four boxes, and for each flight. Flight timing and survey length within the box are also presented. Note that visual observations (birds and mammals) were not made during night flights.

Date (local)	Year Day (UTC)	Day / Night	Box	Fish (km^{-1})	Birds (km^{-1})	Mammals (km^{-1})	km Surveyed
8-Jun	159.8736	day	SW	0	1.04	0.0385	26
8-Jun	159.8736	day	CEN	0	1.34	0	74
9-Jun	160.9236	day	SW	3.07×10^{-4}	0	0	77
9-Jun	160.9236	day	CEN	0	0.714	1.5	14
9-Jun	160.9236	day	NW	0	0	0	35
11-Jun	163.0087	day	SW	0	0.682	0	85
11-Jun	163.0087	day	CEN	0	1690	0.231	26
11-Jun	163.0087	day	NW	0	0.055	0	55
12-Jun	164.4948	night	SW	1.86×10^{-6}	—	—	173
12-Jun	164.4948	night	CEN	0	—	—	108
12-Jun	164.4948	night	NE	0	—	—	39
12-Jun	164.4948	night	NW	1.66×10^{-4}	—	—	147
13-Jun	165.0885	day	CEN	1.33×10^{-3}	372	0.176	217
13-Jun	165.0885	day	NW	0	0	0	23
14-Jun	165.8597	day	SW	4.01×10^{-5}	24.3	0.0431	186
14-Jun	165.8597	day	CEN	2.25×10^{-3}	631	0.53	232
14-Jun	165.8597	day	NE	3.42×10^{-5}	1.03	0.152	66
14-Jun	165.8597	day	NW	1.19×10^{-4}	0.0151	0	133
16-Jun	168.31039	night	SW	6.41×10^{-3}	—	—	126
16-Jun	168.31039	night	CEN	2.91×10^{-3}	—	—	50
16-Jun	168.31039	night	NW	0.0133	—	—	38
17-Jun	168.9969	day	SW	3.86×10^{-5}	95.1	0.179	90
17-Jun	168.9969	day	CEN	4.77×10^{-5}	93.2	0.436	154
17-Jun	168.9969	day	NE	2.89×10^{-4}	24.5	0.0723	42
17-Jun	168.9969	day	NW	0	0	0	9
17-Jun	169.3476	night	SW	1.85×10^{-4}	—	—	47
17-Jun	169.3476	night	CEN	8.87×10^{-4}	—	—	603
17-Jun	169.3476	night	NE	5.17×10^{-4}	—	—	59
18-Jun	170.0069	day	SW	0	6.67	0	17
18-Jun	170.0069	day	CEN	0	37.9	0.162	149
18-Jun	170.0069	day	NE	0	0	0	13
19-Jun	170.8163	day	SW	7.14×10^{-5}	0.154	0	156
19-Jun	170.8163	day	CEN	0	22.1	0.0372	269
19-Jun	170.8163	day	NE	7.24×10^{-4}	830	0.483	176
19-Jun	170.8163	day	NW	0	10.2	0.053	76

Table S2. Number of observations of groups of animals and total counts of individuals by species of sea birds and marine mammals from visual aerial surveys.

Category	Species	No. of Observations	Total Count
Seabirds	alcids (all species lumped) (<i>Alcidae spp.</i>)	34	1,132
	Laysan albatross (<i>Phoebastria immutabilis</i>)	12	184
	northern fulmar (<i>Fulmarus glacialis</i>)	12	1,034
	unidentified gulls (<i>Larus spp.</i>)	11	58
	glacous-winged gulls (<i>Larus glaucescens</i>)	60	654
	black-legged kittiwakes (<i>Rissa tridactyla</i>)	115	7,294
	storm petrels (<i>Hydrobatidae spp.</i>)	23	319
	northern phalaropes (<i>Lobipes lobatus</i>)	6	5,800
	short-tailed shearwaters (<i>Puffinus tenuirostris</i>)	106	461,766
Seabird Total		379	478,241
Marine Mammals	Dall's porpoise (<i>Phocoenoides dalli</i>)	2	25
	harbor porpoise (<i>Phocoena phocoena</i>)	1	1
	harbor seal (<i>Phoca vitulina</i>)	1	1
	humpback whale (<i>Megaptera novaeangliae</i>)	84	413
	steller sea lion (<i>Eumetopias jubatus</i>)	5	82
	sea otter (<i>Enhydra lutris</i>)	1	1
	unidentified whale	2	2
Marine Mammal Total		96	525

Table S3. Midwater trawl catch (kg) per tow (standardized to a 30 minute duration) for hauls within the hot spot area identified from the aircraft on 13 (haul 7), 14 (haul 8), 16 (haul 12), 17 (haul 14), and 18 (haul 15) June. One haul occurred within a hot spot while also observed from the aircraft (haul 7).

Haul	14	8	7	12	15	
Date, June	17	14	13	16	18	
Time of day	Day	Day	Day	Dusk	Night	
Gear depth (m)	13	48	161	22	8	Total
Walleye pollock (<i>Theragra chalcogramma</i>)	—	2.30	16.16	5.51	4.60	28.57
Chum salmon (<i>Onchorhynchus keta</i>)	—	—	24.95	1.94	—	26.89
Jellyfish (<i>Scyphozoa</i>)	—	0.47	—	2.17	1.24	3.88
Pink salmon (<i>Onchorhynchus gorbuscha</i>)	—	—	—	0.58	2.90	3.48
Atka mackerel (<i>Pleurogrammus monopterygius</i>)	—	—	—	—	0.96	0.96
Euphausiids (<i>Euphausiacea</i>)	—	—	0.33	0.05	—	0.37
Ctenophore (<i>Ctenophora</i>)	0.13	0.05	—	—	—	0.18
Sturgeon poacher (<i>Podethecus accipenserinus</i>)	—	—	0.08	—	—	0.08
Ribbed Sculpin (<i>Triglops spp.</i>)	—	—	0.02	—	—	0.02
Total	0.1	2.9	40.2	11.6	9.7	64.5