

Appendix 1. Supplemental analysis based on winter capture location

Table A1.1. Summary of mean and standard deviations of timing of migration based on sex and winter capture location.

Variable	Metric	Males				Females			
		Vancouver Mean/SD Range	Kitimat Mean/SD Range	Juneau Mean/SD Range	South-central AK Mean/SD Range	Vancouver Mean/SD Range	Kitimat Mean/SD Range	Juneau Mean/SD Range	South-central AK Mean/SD Range
Winter	Arrive	Nov 05 ± 7 [Oct 30-Nov 16]	Oct 20 ± 18 [Oct 10-Nov 10]	Oct 08 ± 8 [Oct 01-Oct 26]	Oct 08 ± 7 [Oct 02-Oct 19]	Nov 07 ± 6 [Oct 30-Nov 15]	Oct 28 ± 16 [Sep 30-Nov 10]	Oct 16 ± 11 [Sep 28-Oct 26]	Oct 21 ± 0 [Oct 21-Oct 21]
	Depart	Apr 07 ± 13 [Mar 13-Apr 22]	Apr 19 ± 24 [Mar 21-May 14]	May 11 ± 13 [Apr 18-May 29]	May 01 ± 9 [Apr 17-May 16]	Apr 21 ± 9 [Mar 31-May 04]	Apr 27 ± 17 [Mar 30-May 22]	May 02 ± 14 [Apr 06-May 17]	May 08 ± 8 [Apr 29-May 13]
	LOS (days)	151 ± 12 [136-164]	176 ± 42 [131-216]	218 ± 16 [193-241]	205 ± 9 [192-212]	165 ± 10 [150-175]	175 ± 12 [155-183]	199 ± 10 [176-205]	190 ± 55 [180-308]
Breed	Arrive	Apr 23 ± 10 [Mar 30-May 08]	May 09 ± 15 [Apr 14-Jun 13]	May 10 ± 11 [Apr 18-May 29]	May 06 ± 3 [May 04-May 08]	Apr 26 ± 13 [Mar 31-May 26]	May 04 ± 11 [Apr 19-May 22]	May 06 ± 8 [Apr 29-May 20]	May 09 ± 8 [Apr 23-May 17]
	Depart	May 27 ± 11 [May 10-Jun 19]	Jun 16 ± 26 [May 26-Aug 31]	Jun 19 ± 21 [May 25-Aug 19]	Jun 17 ± 24 [May 31-Jun 04]	Jul 23 ± 24 [Jun 09-Sep 28]	Jul 16 ± 10 [Jun 01-Jul 30]	Jul 07 ± 23 [Jun 09-Aug 01]	Jul 18 ± 14 [Jun 22-Aug 05]
	LOS (days)	34 ± 11 [10-58]	38 ± 16 [20-79]	40 ± 24 [20-45]	42 ± 27 [22-61]	87 ± 26 [27-145]	73 ± 12 [53-84]	62 ± 23 [29-90]	70 ± 19 [37-104]
Molt	Arrive	Jul 26 ± 29 [May 12-Aug 01]	Jun 27 ± 16 [Jun 03-Jul 21]	Jul 06 ± 21 [Jun 13-Aug 19]	Jun 26 ± 16 [May 26-Jul 21]	Jul 29 ± 15 [Jul 01-Aug 22]	Jul 25 ± 13 [Jul 01-Aug 08]	Jul 28 ± 7 [Jul 18-Aug 09]	Jul 27 ± 21 [Jun 22-Aug 23]
	Depart	Sep 25 ± 32 [Jun 29-Nov 06]	Sep 15 ± 16 [Aug 21-Oct 04]	Sep 11 ± 16 [Aug 11-Oct 06]	Sep 06 ± 6 [Aug 25-Sep 15]	Oct 03 ± 12 [Sep 12-Oct 24]	Oct 03 ± 15 [Sep 18-Nov 01]	Sep 22 ± 21 [Aug 25-Oct 22]	Sep 17 ± 23 [Jul 21-Oct 08]
	LOS (days)	81 ± 42 [29-176]	79 ± 18 [56-109]	67 ± 25 [24-106]	73 ± 10 [56-91]	65 ± 20 [32-101]	68 ± 21 [47-109]	56 ± 20 [35-90]	52 ± 16 [29-71]
Distance travelled (km)	Winter to Breed	287 ± 90 [183-527]	480 ± 309 [86-1235]	321 ± 189 [107-714]	431 ± 119 [320-600]	365 ± 140 [187-703]	431 ± 310 [191-1249]	262 ± 145 [62-469]	399 ± 178 [222-577]
	Breed to Molt	786 ± 333 [470-1698]	1078 ± 321 [447-1432]	779 ± 366 [0-1105]	274 ± 246 [3-573]	347 ± 371 [5-1396]	261 ± 238 [2-757]	93 ± 149 [1-477]	68 ± 11 [55-76]
	Molt to Winter	1088 ± 373 [701-1927]	1451 ± 264 [1129-1750]	1173 ± 167 [487-1305]	723 ± 280 [327-945]	692 ± 398 [210-1656]	713 ± 453 [239-1692]	347 ± 152 [156-564]	352 ± 131 [247-518]

Table A1.2 Summary of generalized linear models examining sex, winter capture location, and transmitter effects on i) the timing of arrival and departure on wintering areas, breeding areas and molting sites, ii) the length of stay (LOS) at each location, iii) the distance traveled during each migration (wintering-breeding, breeding-molting, and molting-wintering).

Variable	Metric	Winter Capture Location			Sex			Transmitter Effect			Winter Capture Location*Sex			Adj. r2	Full Model		
		F=	df =	P =	F=	df =	P =	F =	df =	P =	F =	df =	P =		F =	df=	P =
Winter	Arrive	40	3,93	<0.001	2.25	1,93	0.14	NA	NA	NA	2.24	3,93	0.09	0.55	18.4	7,93	<0.001
	Depart	12.3	3,120	<0.001	0.25	1,120	0.62	20	1,120	<0.001	1.72	3,120	0.17	0.3	7.8	8,120	<0.001
	LOS (days)	34.7	3,65	<0.001	1.36	1,65	0.28	12.3	1,65	<0.001	2.08	3,65	0.11	0.61	15.5	8,65	<0.001
Breed	Arrive	11.8	3,120	<0.001	0.1	1,120	0.75	9.06	1,120	0.003	0.82	3,120	0.49	0.23	5.88	8,120	<0.001
	Depart	0.73	3,103	0.54	102.7	1,103	<0.001	NA	NA	NA	3.71	3,103	0.01	0.5	16.6	7,103	<0.001
	LOS (days)	1.81	3,94	0.15	76.4	1,94	<0.001	NA	NA	NA	1.99	3,94	0.12	0.44	12.6	7,94	<0.001
Molt	Arrive	0.16	3,94	0.92	59.6	1,94	<0.001	NA	NA	NA	0.22	3,94	0.88	0.35	8.68	7,94	<0.001
	Depart	11.1	3,102	<0.001	7.63	1,102	0.007	NA	NA	NA	0.88	3,102	0.45	0.25	6.23	7,102	<0.001
	LOS (days)	3.51	3,86	0.02	8.44	1,86	0.005	NA	NA	NA	0.23	3,86	0.87	0.12	2.81	7,86	0.01
Distance travelled (km)	Winter to Breed	0.69	3,120	0.56	0.59	1,120	0.44	1.15	1,120	0.29	1.61	3,120	0.19	0.005	1.08	8,120	0.38
	Breed to Molt	2.52	3,96	0.06	56.8	1,96	<0.001	NA	NA	NA	2.28	3,96	0.08	0.38	10.2	7,96	<0.001
	Molt to Winter	8.61	3,94	<0.001	88.7	1,94	<0.001	NA	NA	NA	3	3,94	0.03	0.54	17.7	7,94	<0.001

The above results are limited to individuals captured on their wintering areas.