

Appendix Table 1. Summary information for home ranges calculated for five female and seven male wintering Snowy Owls between 2014-2021. An owl had  $\geq 1$  sequential home ranges each year it was monitored (HR #). Estimated HR area and 95% Confidence Interval (CI) are shown together with the duration the HR was occupied and the number of GPS fixes. The best-supported movement model (based on the Akaike Information Criterion; AICc) used to generate the HR is also shown (see text for explanation of model types and Calabrese et al. (2021)).

Owl ID	Sex	Winter	HR #	Model (AICc)	Area + CI (km <sup>2</sup> )	Duration (days)	Fixes (#)
April	F	2015-16	1	OUF-anisotropic	47.3 (16.9-93.2)	11	60
		2015-16	2	OUF-isotropic	143 (37.5-317)	33	87
		2015-16	3	OU-isotropic	112 (70.7-163)	15	55
		2016-17	1	OUF-anisotropic	104 (59.1-160)	7	28
		2016-17	2	OU-anisotropic	49.3 (20.9-89.8)	8	32
		2016-17	3	OUF-anisotropic	17.5 (13.4-22.2)	76	240
Bitey	F	2015-16	1	OUF-anisotropic	168 (87.6-275)	26	161
		2015-16	2	OUF-anisotropic	73.1 (57.2-90.9)	31	124
		2016-17	1	OUF-anisotropic	240 (118-405)	16	65
		2016-17	2	OU-anisotropic	764 (68.7-2280)	8	33
		2016-17	3	OUF-anisotropic	32.9 (25.6-41.1)	76	308
		2017-18	1	OU-anisotropic	68.7 (56.3-82.3)	121	485
		2017-18	2	OUF-anisotropic	137 (92.1-191)	20	82
		2018-19	1	OU-anisotropic	32.9 (23.7-43.6)	19	76
		2018-19	2	OU-anisotropic	95.5 (56.2-145)	19	71
		2018-19	3	OUF-anisotropic	861 (469-1370)	52	211
		2018-19	4	IID-isotropic	81.3 (51.6-118)	7	28
		2019-20	1	OUF-anisotropic	5.27 (4.71-5.87)	102	415
		2019-20	2	OUF-anisotropic	33.8 (23-46.6)	11	43
		2019-20	3	OUF-anisotropic	12.7 (7.99-18.5)	10	39
2020-21	1	OUF-anisotropic	266 (199-342)	188	475		
Hammy	F	2015-16	1	OUF-anisotropic	26.6 (21.4-32.4)	63	351
		2015-16	2	OUF-anisotropic	40.9 (26.8-57.9)	18	77
		2015-16	3	OUF-anisotropic	12.2 (8.32-16.9)	13	50
		2015-16	4	OUF-anisotropic	3.34 (2.25-4.63)	8	35
		2015-16	5	OUF-anisotropic	14.5 (8.8-21.6)	7	28
Jordyn	F	2016-17	1	OUF-anisotropic	8.35 (6.14-10.9)	15	59
		2017-18	1	OUF-anisotropic	46.5 (31.1-64.9)	50	64
		2017-18	2	OUF-anisotropic	37.1 (26.6-49.4)	20	77
Socks	F	2015-16	1	OU-anisotropic	14.4 (11.4-17.7)	64	321
		2015-16	2	OU-anisotropic	16.7 (12.1-22)	19	76
		2016-17	1	OU-isotropic	8.22 (4.08-13.8)	16	49
		2016-17	2	OUF-anisotropic	3.31 (2.88-3.77)	88	359
		2017-18	1	OUF-anisotropic	19.3 (13.6-25.8)	27	91
		2017-18	2	OU-anisotropic	12.9 (8.33-18.6)	17	69

		2017-18	3	IID-anisotropic	5.35 (2.73-8.83)	22	92
		2018-19	1	IID-anisotropic	4.88 (3.44-6.56)	9	38
		2018-19	2	Ouf-isotropic	1.91 (1.25-2.71)	77	37
Berg	M	2014-15	1	OUF-anisotropic	15.7 (11.5-20.5)	18	112
		2014-15	2	OUF-anisotropic	197 (29.4-522)	14	58
		2014-15	3	OU-anisotropic	149 (41.9-322)	19	83
		2014-15	4	OU-anisotropic	123 (32.4-273)	12	47
		2015-16	1	OU-isotropic	22.9 (11.9-37.5)	16	33
		2015-16	2	OUF-anisotropic	184 (112-275)	67	306
		2015-16	3	OUF-anisotropic	9.51 (7.49-11.8)	21	88
Dump	M	2015-16	1	OU-anisotropic	41.2 (25.9-60)	34	156
		2015-16	2	OUF-anisotropic	4.73 (2.89-7.02)	7	28
		2016-17	1	OU-anisotropic	27.7 (15.5-43.4)	38	118
		2016-17	2	IID-anisotropic	5.11 (3.65-6.8)	8	32
		2016-17	3	IID-anisotropic	16.7 (7.32-30)	9	34
		2016-17	4	OUF-anisotropic	6.89 (5.18-8.84)	34	130
		2017-18	1	OUF-isotropic	43.6 (16.9-82.8)	12	41
		2017-18	2	OUF-anisotropic	44.2 (35.5-53.9)	60	229
		2018-19	1	IID-anisotropic	39.3 (35-43.8)	80	312
		2019-20	1	OUF-anisotropic	4.4 (3.91-4.91)	95	361
		2019-20	2	OUF-anisotropic	13.8 (7.15-22.6)	18	69
		2020-21	1	OUF-anisotropic	215 (119-338)	28	111
		2020-21	2	OUF-isotropic	339 (226-475)	72	291
Dundurn	M	2015-16	1	OUF-anisotropic	37.6 (28.8-47.5)	42	168
		2016-17	1	OUF-anisotropic	569 (337-862)	111	398
		2016-17	2	Ouf-isotropic	22.5 (13.2-34.4)	9	33
		2017-18	1	OU-anisotropic	339 (112-688)	12	46
		2017-18	2	IID-isotropic	12.1 (7.73-17.3)	7	28
		2017-18	3	OUF-anisotropic	71.7 (48.7-99.1)	66	259
		2018-19	1	OUF-anisotropic	59.6 (39.8-83.3)	31	118
		2018-19	2	OUF-anisotropic	470 (227-802)	80	282
		2019-20	1	OUF-anisotropic	14.7 (8.01-23.5)	8	30
		2019-20	2	OU-anisotropic	13.3 (10-17.1)	36	136
		2019-20	3	OUF-anisotropic	933 (409-1670)	61	238
		2020-21	1	OUF-anisotropic	614 (289-1060)	66	224
		Horse	M	2015-16	1	OUF-anisotropic	43.4 (35.2-52.4)
2015-16	2			OUF-anisotropic	266 (135-442)	22	85
2016-17	1			OUF-anisotropic	299 (152-495)	47	87
2016-17	2			OU-anisotropic	30.9 (14.7-53.2)	32	81
2017-18	1			OUF-anisotropic	458 (289-665)	78	216
2017-18	2			OUF-anisotropic	101 (64.7-145)	25	98
2017-18	3			OU-anisotropic	91.5 (64.7-123)	11	42
2018-19	1			OUF-anisotropic	75.8 (54-101)	21	53

		2018-19	2	OUF-anisotropic	957 (541-1490)	70	238
		2019-20	1	OUF-anisotropic	109 (54.8-183)	24	81
		2019-20	2	OUF-isotropic	881 (422-1510)	59	220
		2019-20	3	OUF-anisotropic	9.91 (7.15-13.1)	30	106
		2020-21	1	OUF-anisotropic	768 (348-1350)	57	215
		2020-21	2	OUF-anisotropic	428 (276-614)	57	201
		2020-21	3	IID-anisotropic	31.4 (9.02-67.4)	23	97
Leprec	M	2015-16	1	OUF-anisotropic	43.3 (34.4-53.1)	77	321
		2015-16	2	OU-anisotropic	60.6 (36.6-90.7)	19	72
		2016-17	1	OUF-anisotropic	31.8 (25-39.3)	77	211
Outlook	M	2016-17	1	OU-anisotropic	23.4 (14.7-34.1)	13	52
		2016-17	2	OUF-anisotropic	279 (77.1-610)	24	96
		2016-17	3	OUF-anisotropic	35.8 (28-44.6)	48	194
		2017-18	1	OUF-anisotropic	557 (180-1140)	17	71
		2017-18	2	OUF-anisotropic	78.5 (64.3-94)	90	373
		2017-18	3	OU-anisotropic	181 (107-275)	19	72
		2018-19	1	OUF-anisotropic	64.6 (49.7-81.4)	83	203
		2019-20	1	IID-anisotropic	110 (90.8-131)	23	97
		2019-20	2	OUF-anisotropic	60.5 (48.3-74.1)	34	135
		2020-21	1	OUF-anisotropic	16.5 (11.2-22.9)	64	53
Sover	M	2015-16	1	OUF-anisotropic	61.6 (43.6-82.5)	41	221
		2015-16	2	OU-anisotropic	382 (141-741)	10	39
		2016-17	1	OU-isotropic	13.8 (8.95-19.6)	10	39
		2016-17	2	OUF-anisotropic	35.8 (30.6-41.4)	93	279
		2016-17	3	OUF-anisotropic	16.4 (10.4-23.8)	10	43
		2017-18	1	OUF-isotropic	39.8 (27.4-54.5)	62	87
		2017-18	2	OU-anisotropic	131 (75.7-200)	27	56
		2018-19	1	OUF-anisotropic	68.5 (35.2-113)	63	80
		2018-19	2	Ouf-anisotropic	21.1 (13.1-31)	13	42
		2018-19	3	OUF-anisotropic	12 (6.29-19.6)	9	38
		2019-20	1	OUF-isotropic	122 (31.5-272)	18	24
		2019-20	2	Ouf-isotropic	189 (87-329)	13	34