

37	30/10/2018	10	0	0	0	0	0	0	0	0	0	0	0	3	9	0	0	0	0	0	0	0	0	0	13	
38	31/10/2018	10.16	0	0	7	0	0	0	0	0	0	0	0	29	0	0	0	0	0	0	0	0	2	0	38	
	October	298.49	0	0	150	1	33	3	20	0	1	16	0	28	2253	0	2	2	2	0	6	2	26	3	4	2552
39	01/11/2018	9.75	0	0	2	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	1	0	16	
40	02/11/2018	9.5	0	0	1	0	0	0	1	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	18
41	03/11/2018	9.58	0	0	1	0	1	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	29
42	04/11/2018	10.5	0	0	0	0	1	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	6
43	05/11/2018	9.16	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
44	06/11/2018	8.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45	07/11/2018	9.16	0	0	9	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	1	0	17
46	08/11/2018	9.67	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	14
47	09/11/2018	9.25	0	0	6	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	31
48	10/11/2018	10.08	0	0	18	0	0	0	0	0	0	0	0	21	0	0	0	0	0	0	0	0	0	0	0	39
49	11/11/2018	8.08	0	0	10	0	0	0	0	0	0	0	1	21	0	1	0	0	0	0	0	0	0	0	0	33
50	12/11/2018	9.33	0	0	2	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	12
51	13/11/2018	8.25	0	0	2	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	5
52	14/11/2018	7.33	0	0	4	0	0	0	2	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	14
53	15/11/2018	9	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
	November	137.06	0	0	55	0	3	0	3	0	0	0	1	172	0	1	0	0	0	0	0	0	2	0	0	237
	TOTALS	536.29	0	3	217	7	69	7	37	1	1	27	0	36	2698	0	4	2	2	3	8	5	35	4	4	3170
	Date	HRS	TV	OS	BE	NH	SS	CH	NG	BW	SW	RT	FH	RL	GE	AK	ML	GY	PG	PR	UA	UB	UE	UF	UU	TOTAL

TABLE 2 - Columns Second Half

Principal Observer	Principal assistant	Others
Rick Robb, Cliff Hansen		
Caroline Lambert	Patrick Farley,	
Blake Weis	Ruth Morrow	
Caroline Lambert	Lori Anderson	
George Halmazna	Joel Duncan	
Joel Duncan	Rachel McKay	
Caroline Lambert	Joel Duncan	
Rick Robb, Cliff Hansen		
Bill Wilson	Heinz Unger	
Blake Weis		
Bill Wilson	Lori Anderson	
George Halmazna	Dan Parliament	
Caroline Lambert	Heinz Unger	
Rick Robb, Cliff Hansen		
Caroline Lambert	Rosemary Power	
Blake Weis	Ruth Morrow, Patrick Farley	
Bill Wilson	Lori Anderson, Patrick Farley	
George Halmazna		
Rick Robb, Cliff Hansen		
Caroline Lambert	Joel Duncan	
Joel Duncan, CL	Brian McBride	
Caroline Lambert	Joel Duncan	
Blake Weis		
Bill Wilson	Lori Anderson, Patrick Farley	
George Halmazna	Dan Parliament, Caroline Lambert	
Dan Parliament	Rosemary Power, Cindy Parliament	
Caroline Lambert	Katherine Petersen	
Rick Robb, Cliff Hansen		
Caroline Lambert	Rosemary Power , Gord Petersen	
Blake Weis	Patrick Farley, Gord Petersen	
Bill Wilson	Lori Anderson, Patrick Farley, James & Theresa Bannon, GP	
George Halmazna	Dan Parliament	
Rick Robb, Cliff Hansen		
Caroline Lambert	Joel Duncan	
Joel Duncan	Brian McBride	
Caroline Lambert	Joel Duncan	
Blake Weis	Rosemary Power	
Bill Wilson	Cliff Hansen	
George Halmazna	Dan Parliament	

Cliff Hansen	Brian McBride	
Caroline Lambert	Joel Duncan	
Joel Duncan	Lori Anderson	
Caroline Lambert	Joel Duncan	
Blake Weis	Cliff Hansen	
Bill Wilson	Lori Anderson	
George Halmazna	Dan Parliament	
Blake Weis		
Caroline Lambert	Rachel Mackay, Blake Weis	
Cliff Hansen	Rick Robb	
Caroline Lambert	Rachel Mackay	
Bill Wilson	Ruth Morrow	
Blake Weis	Lori Anderson	
George Halmazna	Dan Parliament	
Blake Weis	Katherine Peterson	
Blake Weis	Heinz Unger	
Cliff Hansen	Rick Robb	

TABLE 3

MOUNT LORETTE, FALL 2018
SUMMARY WEATHER

Day #	Date	TEMP		RIDGE-WIND		CLOUD			PRECIPITATION & NOTES	% TIME RIDGES OBSCURED		# Migrant Raptors	SITE	
		Max	Min	Direction	Velocity	Max%	Min%	type		East	West			
1	Sep 20	-1	5	NE	L-M	100	50	Sc, Ci, Cu, St	light rain, steady rain fog after 17:00	30	50	1	HM	
2	Sep 21	1	5	C-N	L-M	100	100	St, Sc	drizzle, light rain, fog to 1400	100	100	0	HM	
3	Sep 22	0	-1	NW	M	100	90	Sc, Cu, As	light flurries; sleet, rain after 1300	90	80	0	HM	
4	Sep 23	1	10	W	M-S	100	50	Cu, As	rain showers	0	20	118	HM	
5	Sep 24	10	0	SW	L-M	100	40	Cu, As, St	afternoon showers	10	10	44	HM	
6	Sep 25	12	-1	W	M	90	0	Cu, Ci, As		0	0	41	HM	
7	Sep 26	12	1	W-SW	M-S	100	70	Cu, As	gloomy	0	0	76	HM	
	Sep 27	NO OBSERVATION (Weather)					100	100	St	Rain, snow, fog	100	100	0	no
8	Sep 28	0	4	N	L-M	100	90	St, As, Cu		50	80	42	HM	
9	Sep 29	2	-1	N-NE	M	100	100	Sc, Cu, Ac, As	mod- heavy snow in am; light snow in pm	30	30	13	HM,LC	
10	Sep 30	1	-2	SW	M-S	100	90	As St		20	60	46	HM	
11	Oct 1	-3	-4	N	L-M	100	100	St	snow after 0900, heavy after 1100	100	100	0	HM	
	Oct 2	NO OBSERVATION (Weather)					100	100	St	Heavy snow all day, all mtns obscured	100	100	0	no
12	Oct 3	1	-7	S-SW	L-M	90	10	Cu, Ci	(40 cm fresh snow)	20	50	8	HM	
13	Oct 4	3	-5	W	L	85	20	Cu, Ci		0	0	135	HM	
14	Oct 5	3	-11	SW-W	M	100	60	As, Cs, Cu		0	0	349	HM	
15	Oct 6	6	-8	SSW	L-M	0	0	Ci		0	0	209	HM	
16	Oct 7	7	-7	SW	L	40	0	As, Ci, Cu		0	0	105	HM	
	Oct 8	NO OBSERVATION (Weather)					100	100	St	snow: all obscured	100	100	0	no
	Oct 9	NO OBSERVATION (Weather)					100	100	St	light snow: all obscured	100	100	0	no
17	Oct 10	1	-7	S-W	L-M	100	20	Ac, As, Cu, Cc	light flurries after 1600	0	30	8	HM	
18	Oct 11	6	-8	SW	L-S	90	0	Ci, As		0	0	26	HM	
19	Oct 12	9	3	W-NE	VS-S	100	40	Cu, Ci, As	light sleet showers 1100-1300; snow at end	0	40	85	HM	
20	Oct 13	0	-1	N	M	100	90	Sc, Cu, Ac	light to heavy snow all day	70	70	0	HM,BL,LC	
21	Oct 14	6	-8	SW	M	100	10	As		0	0	240	HM	
22	Oct 15	10.5	-3	SW	L-M	90	30	Ci, Cu, As, Cs		0	0	278	HM	
23	Oct 16	13	-5	SW	L-M	10	0	As		0	0	144	HM	
24	Oct 17	14	-4	W	L-M	30	0	Ci		0	0	117	HM	
25	Oct 18	19	12	SW-WSW	L	100	60	Sc, Cu, Ac		0	0	90	HM	
26	Oct 19	13	-3	SW-WSW	L-M	70	0	Ci, Cs, As		0	0	124	HM	
27	Oct 20	4	-1	SW-WSW	M	30	0	Ci		0	0	84	HM	
28	Oct 21	12	-3	SW	M	90	0	Cs, Ci, As		0	0	133	HM	
29	Oct 22	13	-8	SW	L	10	0	Ci		0	0	46	HM	
30	Oct 23	15	-5	SW	L	0	0			0	0	74	HM	
31	Oct 24	10	-1	SW	S	100	20	As,Cu,Ac	light rain showers around 1600	0	20	45	HM	
32	Oct 25	11	6	SW	S	80	50	Cu, Ac, As, Ci		0	5	41	HM	
33	Oct 26	10	3	SW	S	100	40	As, Cu, S	light rain after 1600; rain at end	20	40	51	HM	
34	Oct 27	7	3	SW-WSW	S	60	10	Ac, Ci		0	0	19	HM	
35	Oct 28	9	2	SW	M-S	100	40	St, Cu, Ac	moderate rain and sleet 0930-1030	20	80	54	HM	

36	Oct	29	5.5	0	SW	L-M	90	30	Cu, Cs, Ac		0	0	36	HM
37	Oct	30	6	-1	NW	M	70	30	Cu, Ac, As, Ci	light snow shower 1240-1310	0	0	13	HM
38	Oct	31	6	3	W-NW	S	100	60	Cu, As		0	30	38	HM
39	Nov	1	4	0	SW	S-M	100	20	St, Cu, Ac, As		10	30	16	HM
40	Nov	2	10	4	SW-NNW	S	100	70	Cu, As, Ci	light rain showers 1500-1600	0	30	18	HM
41	Nov	3	7	0	SW	M	100	80	Ac, As, Cs, Ci, Cu		0	0	29	HM
42	Nov	4	9	6	WSW-W	S-M	100	40	Cu, St	light flurries at 1400	0	80	6	HM
43	Nov	5	-3	-4	NW-NE	L	100	80	Cs, Ac, Cu, St	light snow after 1000	90	70	1	HM
44	Nov	6	-6	-9	N	M	100	90	Cu, Sc, Ac, Ci	light snow to 1100 and moderate after 1600	70	90	0	HM
45	Nov	7	-4	-14	NW	L-M	80	0	Ci, S, Cu	ground fog to 1000	10	20	17	HM
46	Nov	8	-1	-14	SW	L-M	0	0			0	0	14	HM
47	Nov	9	3	-4	NW	S	100	30	Cu, As, Cs		0	30	31	HM
48	Nov	10	1	-5	NNW-NW	L-M	90	0	Cu, As, St		10	0	39	HM
49	Nov	11	-2	-7	NW	M	100	30	Sc, Cu, Ac, Ci	heavy snow to 1200, moderate 13-1400	50	60	33	HM
50	Nov	12	0.5	-9	SW	L-M	100	10	Ci, As, Ac,lent		0	0	12	HM
51	Nov	13	3	-2	W-SW	M-S	100	40	Cs, As, Ci, Ac, Cc		0	0	5	HM
52	Nov	14	4	2	W-NW	M-S	100	50	Ac, As, Cu, Ci, Sc	heavy snow 1300-1500, none at Lusk Ck.	20	20	14	HM,LC
53	Nov	15	4	-1	SSW	M	90	70	St, Cu, Sc		0	20	2	HM
TOTAL														3170
SITES														
HM	Hay Meadow													
LC	Lusk Creek													
BL	Barrier Lake													

TABLE 4

MOUNT LORETTE SUMMARY TOTALS, September 20 - November 15, 1993-1996, 1998-2001, 2003-2005, 2009-2018

	days	hrs.	TV	OS	BE	NH	SS	CH	NG	BW	SW	RT	FH	RL	GE	AK	ME	GY	PG	PR	UA	UB	UE	UF	UU	T	
1993	55	474.8	0	2	455	13	217	46	82	5	0	47	1	59	4532	1	4	8	4	1	2	0	0	1	0	5480	
1994	56	516.8	0	0	294	7	175	29	25	15	0	39	0	37	3788	2	15	2	5	4	1	2	1	0	0	4441	
1995	54	463.3	0	2	296	27	251	31	11	5	2	52	0	67	3591	4	12	3	4	2	1	3	0	1	0	4365	
1996	53	485.6	0	2	271	11	173	23	8	25	0	32	1	65	3881	8	9	0	5	2	0	4	0	0	0	4520	
1998	52	483.2	1	1	174	12	80	20	28	14	0	59	1	82	3209	8	2	5	5	1	6	2	0	1	3	3714	
1999	57	596.6	0	4	193	13	134	21	25	18	1	32	0	67	3302	1	6	5	8	1	5	1	1	2	7	3847	
2000	57	623.6	0	2	510	15	175	25	140	3	0	17	0	68	4587	1	12	2	2	1	7	0	1	1	6	5575	
2001	57	646.5	0	4	330	11	183	18	101	3	0	43	0	52	3592	2	9	5	6	0	4	2	0	3	0	4368	
2003	55	615.6	0	3	258	4	131	25	59	1	1	40	0	33	3744	3	8	1	5	1	11	2	2	0	10	4342	
2004	57	658.7	0	4	338	15	125	26	57	5	1	14	0	70	3610	2	8	9	11	4	10	1	4	1	16	4331	
2005	57	662.1	0	3	242	6	89	19	41	6	1	16	1	78	3821	2	3	1	2	3	14	2	2	2	8	4362	
2009*	46	492.3	0	4	100	5	57	10	25	1	0	18	0	16	2367	1	4	1	4	2	3	0	1	1	3	2623	
2010	55	577.2	0	4	165	6	67	15	34	1	0	44	1	23	3222	2	2	0	4	4	16	9	12	1	10	3642	
2011	55	590.8	0	3	137	2	113	33	42	0	0	28	0	41	3466	2	6	2	10	2	3	2	2	3	2	3899	
2012	52	530.1	0	2	128	6	63	10	30	1	0	26	0	61	2635	0	5	1	6	2	5	2	2	1	1	2987	
2013	51	516.9	0	1	95	7	97	18	25	0	0	20	0	32	2782	1	6	0	4	1	6	5	5	3	2	3110	
2014	56	583.4	0	5	157	17	96	20	35	5	0	53	0	48	2845	2	7	3	9	1	8	5	12	3	1	3332	
2015	57	599.5	0	1	188	14	255	31	43	6	0	30	1	59	3388	2	22	5	9	4	16	15	13	1	3	4106	
2016	56	577.1	0	5	213	9	133	11	32	5	1	27	1	24	2973	4	8	0	10	2	13	9	11	3	5	3499	
2017	51	532.7	0	2	190	6	82	18	30	1	0	29	1	29	3233	3	5	4	7	6	3	10	8	3	2	3672	
2018	53	536.3	0	3	217	7	69	7	37	1	1	27	0	36	2698	0	4	2	2	3	8	5	35	4	4	3170	
TOTAL	1142	11763	1	57	4951	213	2765	456	910	121	8	693	8	1047	71266	51	157	59	122	47	142	81	112	35	83	83385	
Av 93-17	54.5	561.3	0.05	2.7	237	10.3	135	22.5	43.7	6	0.35	33.3	0.4	50.6	3428.4	2.55	7.65	2.85	6	2.2	6.7	3.8	3.85	1.55	3.95	4010.75	
18 of Av	-2.7	-4.5	-100.0	11.1	-8.3	-32.0	-48.8	-68.8	-15.2	-83.3	185.7	-18.9	-100.0	-28.8	-21.3	-100.0	-47.7	-29.8	-66.7	36.4	19.4	31.6	809.1	158.1	1.3	-21.0	
*	Count ended Nov 9, but considered valid																										
1992	short reconnaissance count																										
1997	count at Plateau Mountain																										
2002	no systematic count																										
2006-08	anomalously low, short counts																										

TABLE 5A

SEPTEMBER 20-30, SUMMARY TOTALS, MOUNT LORETTE (excluding 1992,1997,2002,2006,2007,2008)

	days	hrs.	TV	OS	BE	NH	SS	CH	NG	BW	SW	RT	FH	RL	GE	AK	ME	GY	PG	PR	UA	UB	UE	UF	UU	T
1993	10	102.6	0	2	31	6	98	37	7	0	0	40	1	10	1004	1	1	0	1	0	2	0	0	0	0	1241
1994	11	108.4	0	0	11	1	100	15	6	1	0	21	0	0	218	2	8	0	1	3	1	0	0	0	0	388
1995	11	105.8	0	2	36	20	75	22	1	2	2	26	0	2	222	1	4	0	0	0	1	2	0	0	0	418
1996	10	89.99	0	2	13	3	103	13	1	17	0	19	1	2	131	6	4	0	4	0	0	1	0	0	0	320
1998	10	100.8	1	1	8	7	40	14	10	10	0	44	1	0	170	6	1	0	0	1	6	1	0	0	2	323
1999	11	110.1	0	3	5	7	47	11	1	2	1	22	0	2	278	1	4	2	0	0	2	1	0	0	4	393
2000	11	118.6	0	1	33	7	63	9	1	0	0	5	0	1	497	0	5	1	0	0	6	0	0	0	2	631
2001	11	134	0	4	25	3	52	9	2	0	0	18	0	3	363	1	5	0	2	0	1	1	0	1	0	490
2003	11	132.6	0	3	23	1	69	18	14	1	1	29	0	1	433	3	5	0	3	0	6	0	0	0	5	615
2004	11	141.7	0	4	29	11	76	18	22	1	0	9	0	5	954	1	2	0	6	1	1	1	2	0	6	1149
2005	11	133.7	0	2	13	2	45	9	3	5	1	10	0	0	379	0	1	0	0	1	9	1	0	1	3	485
2009	11	133.3	0	3	10	3	38	7	11	0	0	15	0	3	355	1	0	0	0	2	0	0	0	0	1	449
2010	11	117.2	0	2	30	2	34	4	10	0	0	22	1	1	223	1	0	0	0	1	3	1	0	0	2	337
2011	11	134.6	0	1	11	2	25	3	3	0	0	5	0	1	169	2	0	0	4	0	1	0	0	0	1	228
2012	11	124.5	0	2	17	4	16	4	6	0	0	11	0	0	273	0	4	0	1	0	2	0	1	0	1	342
2013	10	112.8	0	1	10	2	12	4	5	0	0	12	0	0	162	0	2	0	2	0	2	1	1	0	1	217
2014	11	121.1	0	5	9	5	35	9	9	0	0	14	0	0	92	0	3	0	4	0	5	2	0	1	1	194
2015	11	126.4	0	0	14	4	73	4	14	1	0	5	1	1	611	1	4	1	3	2	6	4	3	0	1	753
2016	11	121.3	0	3	17	4	85	6	19	3	1	17	0	2	459	3	2	0	2	0	9	3	1	1	3	640
2017	10	120.6	0	1	28	2	44	9	10	1	0	15	0	3	276	0	2	0	3	0	1	2	2	0	1	400
2018	10	100.7	0	3	12	6	33	4	14	1	0	11	0	7	273	0	1	0	0	3	2	3	7	1	0	381
TOTAL	225	2491	1	45	385	102	1163	229	169	45	6	370	5	44	7542	30	58	4	36	14	66	24	17	5	34	10394
Av 93-17	10.8	119.5	0.1	2.1	18.7	4.8	56.5	11.3	7.8	2.2	0.3	18.0	0.3	1.9	363.5	1.5	2.9	0.2	1.8	0.6	3.2	1.1	0.5	0.2	1.7	500.7
18 cf Av	-7.0	-15.7	-100.0	42.9	-35.7	25.0	-41.6	-64.4	80.6	-54.5	-100.0	-38.7	-100.0	278.4	-24.9	-100.0	-64.9	-100.0	-100.0	445.5	-37.5	185.7	1300.0	400.0	-100.0	-23.9

TABLE 5B

OCTOBER SUMMARY TOTALS, MOUNT LORETTE (excluding 1992,1997,2002,2006,2007)

	days	hrs.	TV	OS	BE	NH	SS	CH	NG	BW	SW	RT	FH	RL	GE	AK	ME	GY	PG	PR	UA	UB	UE	UF	UU	T
1993	30	263.8	0	0	342	6	119	9	60	5	0	7	0	46	3347	0	2	3	3	0	0	0	0	1	0	3950
1994	30	284.8	0	0	187	5	75	14	14	14	0	16	0	22	3404	0	6	1	4	1	0	2	0	0	0	3765
1995	29	254.3	0	0	125	6	174	8	8	3	0	25	0	51	3052	3	8	3	2	2	0	1	0	1	0	3472
1996	31	313.6	0	0	193	8	70	10	5	8	0	13	0	63	3552	2	5	0	1	2	0	3	0	0	0	3935
1998	30	287.5	0	0	95	4	40	4	10	3	0	14	0	61	2837	2	0	1	4	0	0	1	0	1	1	3078
1999	31	336.1	0	1	126	6	85	10	21	15	0	9	0	58	2752	0	2	5	6	1	3	0	1	2	3	3106
2000	31	353.4	0	1	337	7	112	15	110	3	0	12	0	65	3817	1	7	1	1	1	1	0	0	1	3	4495
2001	31	354.4	0	0	208	8	126	9	66	3	0	23	0	48	2903	0	4	3	4	0	2	1	0	2	0	3410
2003	30	342.5	0	0	150	3	60	5	42	0	0	11	0	31	3216	0	3	0	2	1	5	2	1	0	5	3537
2004	31	358.1	0	0	175	3	49	8	34	4	1	5	0	63	2588	1	4	6	4	3	9	0	1	0	9	2967

2005	31	369.4	0	1	188	4	44	10	32	1	0	6	1	73	3297	1	2	0	0	2	5	1	2	1	5	3676	
2008	30	314.4	0	1	66	7	25	10	18	3	0	4	0	12	2047	1	6	0	1	1	2	6	13	4	7	2234	
2009	29	307.2	0	1	77	2	19	3	13	1	0	2	0	13	1831	0	4	1	4	0	3	0	2	1	2	1979	
2010	29	318.5	0	2	78	4	27	8	16	1	0	21	1	20	2648	1	2	0	4	3	11	8	9	1	5	2870	
2011	29	324.1	0	1	90	0	84	28	38	0	0	21	0	31	3168	0	5	2	6	0	1	2	2	3	1	3483	
2012	28	287.9	0	0	50	1	45	6	20	1	0	13	0	56	2045	0	1	1	4	2	3	2	1	0	0	2251	
2013	29	300.1	0	0	60	5	82	14	19	0	0	8	0	32	2573	1	4	0	2	1	2	3	4	3	1	2814	
2014	30	324.5	0	0	95	12	56	10	26	5	0	37	0	39	2365	2	3	0	4	1	3	1	11	2	0	2672	
2015	31	340.1	0	1	131	10	179	25	28	5	0	25	0	41	2575	1	18	3	6	2	10	11	8	1	2	3082	
2016	30	312.8	0	2	91	5	42	3	9	2	0	9	1	17	1923	1	5	0	6	1	3	3	2	1	2	2128	
2017	29	305.7	0	1	126	4	37	9	17	0	0	14	1	24	2896	3	3	4	4	6	2	8	4	3	1	3167	
2018	28	298.5	0	0	150	1	33	3	20	0	1	16	0	28	2253	0	2	2	2	0	6	2	26	3	4	2552	
TOTAL	657	6952	0	12	3140	111	1583	221	626	77	2	311	4	894	61089	20	96	36	74	30	71	57	87	31	51	68623	
Av 93-17	30	316.8	0	0.5714	142.38	5.2381	73.81	10.381	28.857	3.6667	0.0476	14.048	0.1905	41.238	2801.7	0.9524	4.4762	1.619	3.4286	1.4286	3.0952	2.619	2.9048	1.3333	2.2381	3146.2	
18 cf Av	-6.52	-5.785		-100	5.3512	-80.91	-55.29	-71.1	-30.69	-100	2000	13.898	-100	-32.1	-19.58	-100	-55.32	23.529	-41.67	-100	93.846	-23.64	795.08	125	78.723	-18.89	

TABLE 5C

NOVEMBER 1-15, SUMMARY TOTALS, MOUNT LORETTE (excluding 1992,1997,2002,2006,2007,2008,2009)

	days	hrs.	TV	OS	BE	NH	SS	CH	NG	BW	SW	RT	FH	RL	GE	AK	ME	GY	PG	PR	UA	UB	UE	UF	UU	T	
1993	15	108.4	0	0	82	1	0	0	15	0	0	0	0	3	181	0	1	5	0	1	0	0	0	0	0	289	
1994	15	123.6	0	0	96	1	0	0	5	0	0	2	0	15	166	0	1	1	0	0	0	0	1	0	0	288	
1995	14	103.2	0	0	135	1	2	1	2	0	0	1	0	14	317	0	0	0	2	0	0	0	0	0	0	475	
1996	12	81.99	0	0	65	0	0	0	2	0	0	0	0	0	198	0	0	0	0	0	0	0	0	0	0	265	
1998	12	94.9	0	0	69	1	0	2	4	0	0	1	0	17	201	0	1	1	1	0	0	0	0	0	0	298	
1999	15	150.4	0	0	62	0	2	0	3	1	0	1	0	7	272	0	0	0	0	0	0	0	0	0	0	348	
2000	15	151.7	0	0	140	1	0	1	23	0	0	0	0	2	273	0	0	0	0	0	0	0	1	0	1	442	
2001	15	158.1	0	0	97	0	5	0	33	0	0	2	0	1	326	1	0	2	0	0	1	0	0	0	0	468	
2003	14	140.6	0	0	85	0	2	2	3	0	0	0	0	1	95	0	0	1	0	0	0	0	1	0	0	190	
2004	15	158.9	0	0	134	1	0	0	1	0	0	0	0	2	68	0	2	3	1	0	0	0	1	1	1	215	
2005	15	159	0	0	41	0	0	0	6	0	0	0	0	5	145	1	0	1	2	0	0	0	0	0	0	201	
2010	15	142.7	0	0	57	0	6	3	8	0	0	0	0	2	351	0	0	0	0	0	2	0	3	0	3	435	
2011	15	132.1	0	1	36	0	4	2	1	0	0	2	0	9	129	0	1	0	0	2	1	0	0	0	0	188	
2012	13	117.8	0	0	61	1	2	0	4	0	0	2	0	5	317	0	0	0	1	0	0	0	1	0	0	394	
2013	12	104	0	0	25	0	3	0	1	0	0	0	0	0	47	0	0	0	0	0	2	1	0	0	0	79	
2014	15	137.8	0	0	53	0	5	1	0	0	0	2	0	9	388	0	1	3	1	0	0	2	1	0	0	466	
2015	15	133	0	0	43	0	3	2	1	0	0	0	0	17	202	0	0	1	0	0	0	0	2	0	0	271	
2016	15	142.9	0	0	105	0	6	2	4	0	0	1	0	5	591	0	1	0	2	1	1	3	8	1	0	731	
2017	12	106.4	0	0	36	0	1	0	3	0	0	0	0	2	61	0	0	0	0	0	0	0	2	0	0	105	
2018	15	137.1	0	0	55	0	3	0	3	0	0	0	0	1	172	0	1	0	0	0	0	0	2	0	0	237	
TOTAL	284	2584	0	1	1477	7	44	16	122	1	0	14	0	117	4500	2	9	18	10	4	7	6	22	3	5	6385	
Av 93-17	14.2	128.8	0.0	0.1	74.8	0.4	2.2	0.8	6.3	0.1	0.0	0.7	0.0	6.1	227.8	0.1	0.4	0.9	0.5	0.2	0.4	0.3	1.1	0.2	0.3	323.6	
18 cf Av	5.9	6.4		-100.0	-26.5	-100.0	39.0	-100.0	-52.1	-100.0		-100.0		-83.6	-24.5	-100.0	137.5	-100.0	-100.0	-100.0	-100.0	-100.0	90.0	-100.0	-100.0	-26.8	

TABLE 6

MOUNT LORETTE: GOLDEN EAGLE: PASSAGE BY HOUR, FALL 2018

	MST	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	n	T	
		0	13	50	76	126	177	310	379	411	471	409	248	28			
-	MDT	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20			
SEP	20	0	0	0	0	0	0	W	0	W	0	W	w	w	0	0	
	21	-	W	W	W	W	W	W	W	w	w	w	w	w	0	0	
	22	-	W	W	W	W	W	w	w	w	w	w	w	w	0	0	
	23	-	0	0	1	1	2	3	4	21	31	22	12	3	100	100	
	24	0	2	3	1	6	9	6	1	0	2	0	7	0	37	137	
	25	0	0	0	0	0	0	1	4	8	9	6	1	0	29	166	
	26	0	0	1	0	1	2	11	8	10	6	21	9	1	70	236	
	27	w	w	w	w	w	w	w	w	w	w	w	w	w	0	236	
	28	W	(W)	(W)	0	3	1	3	3	4	4	0	(W)	(W)	18	254	
	29	w	W	W	W	W	0	1	0	3	0	0	-	-	4	258	HM, LC
	30	0	0	0	1	1	5	4	1	2	1	0	0	0	15	273	
OCT	1	0	0	0	W	W	w	w	w	w	w	w	w	w	0	273	
	2	w	w	w	w	w	w	w	w	w	w	w	w	w	0	273	
	3	-	-	-	0	0	0	1	1	1	0	4	1	0	8	281	
	4	0	0	0	0	0	1	4	12	21	18	24	32	12	124	405	
	5	0	0	4	13	34	35	40	62	49	33	45	22	-	337	742	
	6	-	0	0	3	8	15	46	22	8	26	31	22	1	182	924	
	7	0	0	0	1	14	16	18	3	9	4	8	13	0	86	1010	
	8	W	W	W	W	W	w	w	w	w	w	w	w	w	0	1010	
	9	w	W	W	W	W	W	W	W	W	W	w	w	w	0	1010	
	10	0	0	0	0	0	1	1	6	0	0	0	0	0	8	1018	
	11	0	1	0	0	3	2	2	3	3	5	1	0	0	20	1038	
	12	-	0	4	4	7	2	23	5	17	6	3	0	-	71	1109	
	13	-	(W)	(W)	(W)	W	W	W	W	W	(W)	(W)	w	w	0	1109	HM,BD,LC
	14	0	0	1	0	2	5	5	12	20	61	52	64	8	230	1339	
	15	0	8	12	7	9	10	27	54	38	38	48	13	1	265	1604	
	16	0	0	0	1	1	0	10	27	18	36	20	10	2	125	1729	
	17	-	0	0	0	2	4	5	19	31	18	17	10	0	106	1835	
	18	0	0	1	2	7	8	5	6	21	13	13	6	0	82	1917	
	19	-	0	5	1	1	5	6	20	10	33	13	6	0	100	2017	
	20	0	0	0	7	5	1	5	8	5	16	18	7	-	72	2089	
	21	0	1	0	0	2	0	9	24	3	21	14	1	-	75	2164	
	22	0	0	0	0	0	6	2	4	9	16	5	0	-	42	2206	
	23	-	0	0	0	0	0	1	8	18	11	19	10	-	67	2273	
	24	-	0	7	1	0	3	7	10	6	5	2	0	-	41	2314	
	25	-	1	2	0	0	15	7	1	5	9	0	0	-	40	2354	
	26	-	0	0	4	2	2	8	15	8	5	0	w	w	44	2398	
	27	-	0	0	0	0	0	1	4	7	2	1	0	-	15	2413	
	28	0	0	(W)	W	(W)	0	15	11	15	2	0	0	-	43	2456	

TABLE 7

MEDIAN PASSAGE DATES AND AGE RATIOS, MOUNT LORETTE, FALL 2018

	Species		Adults		Immatures		imm:adult	
OSPREY								
BALD EAGLE	21-Oct	2d early	21-Oct	4d early	20-Oct	=	0.64	+18%
NORTHERN HARRIER	28-Sep	5d early						
SHARP-SHINNED HAWK	04-Oct	2d late	04-Oct	1d late	30-Sep	1d late	0.6	+53.1%
COOPER'S HAWK	28-Sep	2d early						
NORTHERN GOSHAWK	12-Oct	1d late	14-Oct	3d late	19-Oct	9d late	0.31	+57.3%
BROAD-WINGED HAWK								
RED-TAILED HAWK	06-Oct	7d late	06-Oct	7d late	15-Oct	19d late	0.55	+22%
ROUGH-LEGGED HAWK	14-Oct	3d early						
GOLDEN EAGLE	15-Oct	3d late	15-Oct	1d late	07-Oct	2d early	0.42	+40%
MERLIN								
GYRFALCON								
PEREGRINE FALCON								
COMBINED SPECIES	15-Oct	2d late						
(Note: statistics are not calculated for less than 4 birds)								

34	30/10/2018	9.75	0	0	25	0	2	1	7	0	0	1	0	9	25	0	0	0	0	0	0	0	0	0	0	70	7	
35	31/10/2018	10	0	0	15	0	0	0	1	0	0	0	0	14	28	0	0	0	0	0	0	0	1	0	0	59	4	
	October	253.82	0	3	297	4	362	40	80	11	0	122	6	392	2309	4	8	4	4	3	7	24	4	1	3	3688	16	
36	01/11/2018	9.25	0	0	0	0	0	0	0	0	0	0	0	10	5	0	0	0	0	0	0	0	0	0	0	15	2	
37	02/11/2018	6.33	0	0	16	0	0	0	0	0	0	0	0	6	17	0	0	0	0	0	0	0	0	0	0	39	3	
38	03/11/2018	9	0	0	11	0	1	0	0	0	0	1	0	7	22	0	0	0	0	0	0	0	0	0	0	42	5	
39	04/11/2018	9.25	0	0	3	0	0	0	2	0	0	0	0	1	8	0	0	1	0	2	0	0	0	0	0	17	6	
40	05/11/2018	3.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
41	06/11/2018	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
42	07/11/2018	7	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	1	
43	08/11/2018	8.25	0	0	9	0	0	0	0	0	0	0	0	3	32	0	0	0	0	1	0	0	0	0	0	45	4	
44	09/11/2018	9	0	0	23	0	0	0	1	0	0	0	0	0	28	0	0	0	0	1	0	0	0	0	0	53	4	
45	10/11/2018	9.5	0	0	13	0	0	0	1	0	0	0	0	3	19	0	0	0	0	0	0	0	0	0	0	36	4	
46	11/11/2018	7	0	0	19	0	0	0	0	0	0	0	0	1	5	0	1	0	0	0	0	0	1	0	0	27	4	
47	12/11/2018	9.25	0	0	14	0	0	0	4	0	0	2	0	1	49	0	0	0	0	0	0	0	0	0	0	70	5	
48	13/11/2018	9	0	0	2	0	0	0	1	0	0	0	0	0	15	0	0	0	0	1	0	0	0	0	0	19	4	
49	14/11/2018	9	0	0	7	0	0	0	0	0	0	0	0	1	21	0	0	0	0	0	0	0	1	0	0	30	3	
50	15/11/2018	9	0	0	14	0	0	0	1	0	0	0	0	1	22	0	0	0	0	0	0	0	0	0	0	38	4	
	November	117.08	0	0	131	0	1	0	10	0	0	3	0	34	245	0	1	1	0	5	0	0	2	0	0	433	9	
	TOTALS	434.9	0	8	445	15	627	74	103	24	2	176	8	436	2735	12	21	5	9	10	7	25	7	2	4	4755	17	
	Date	HRS	TV	OS	BE	NH	SS	CH	NG	BW	SW	RT	FH	RL	GE	AK	ML	GY	PG	PR	UA	UB	UE	UF	UU	TOTAL		
	SITES																											
	VR																											
	WT 61																											
	WT 68																											
	7G																											
	Tp.Rd.6-5																											

Ridgetop at southern end of Vicki Ridge

Shell Waterton 61 wellsite, west flank of Vicki Ridge c 400m W of ridgetop.

Shell Waterton 68 wellsite and western edge of Kylo Ridge, c 2km W of VR.

Seven-Gates Road, immediatly E of VR.

Township Road 6-5, the road to Lynx Creek and Carbondale, about 3 km west of Highway 507 , c4 km north of VR site.

TABLE 8 - Columns Second Half

Principal Observer	Assistants	Others	Sites
Peter Sherrington			VR, W61
Peter Sherrington	Denise Cocciolone-Amatto, Raymond Toal, Shirley Enzol		WT61, WT68
Peter Sherrington	Trevor Lewis, Raymond Toal		WT61
Peter Sherrington			VR, W61
Peter Sherrington	Doug & Teresa Dolmen		VR, W61
Peter Sherrington			VR, W61
Peter Sherrington		8	7G, VR
Peter Sherrington	Hilary Atkinson		VR
Peter Sherrington	Hilary Atkinson		TP. Rd. 6-5
Peter Sherrington	Hilary Atkinson		TP. Rd. 6-5
Peter Sherrington	Hilary Atkinson, Denise C-A, Pat Lucas, Trevor Lewis	Melissa Bucher	WT61
Peter Sherrington	Hilary Atkinson		WT61
Peter Sherrington	Doug & Teresa Dolmen, principals after 1415		WT61
Peter Sherrington			WT61
Peter Sherrington	Denise Cocciolone-Amatto, Raymond Toal, Gord Petersen		WT61, WT68
Peter Sherrington	Trevor Lewis, Gord Petersen		WT61
Peter Sherrington	Hilary Atkinson		WT61
Peter Sherrington	Hilary Atkinson		WT61
Peter Sherrington	HA, Denise Cocciolone-Amatto, Raymond Toal, Gord Petersen, Pat Lucas		WT61
Peter Sherrington	HA, Doug & Teresa Dolman, , Raymond Toal, Gord Petersen, Trevor Lewis		WT61
Peter Sherrington	HA, Raymond Toal, Gord Petersen, Trevor Lewis, DC-A		WT61, VR
Peter Sherrington	HA, Doug & Teresa Dolman, , Raymond Toal		WT61
Peter Sherrington	Hilary Atkinson		WT61
Peter Sherrington	Hilary Atkinson, Dan and Charleen Lee, Trevor Lewis		WT61
Peter Sherrington			WT61
Peter Sherrington	Hilary Atkinson		VR
Doug & Teresa Dolman	Raymond Toal, Gord Petersen		WT61
Peter Sherrington	Hilary Atkinson, Gord Petersen		WT61
Peter Sherrington	Hilary Atkinson, Gord Petersen		WT61, WT68
PS, GP (1530+)	Hilary Atkinson, Gord Petersen		WT61, WT68
Peter Sherrington			WT61
Peter Sherrington	Gord Petersen		WT61, WT68
Peter Sherrington	Gord Petersen		WT61, WT68

TABLE 9

**VICKI RIDGE, FALL 2018
SUMMARY WEATHER**

Day #	Date	TEMP		RIDGE-WIND		CLOUD		PRECIPITATION & NOTES	SITE	# Migrant Raptors
		Max	Min	Direction	Velocity	%	type			
1	Sep 20	9.5	3	W, NNW-NW	8-16g25	70-100	As,Cs,Cu,Sc	rain/hail thundershowers 1130-1230	VR,WS	44
2	Sep 21	13	9	WSW-WNW	20-40g60	100-60	As,Cu,Cs,Ci	v light rain in am	WS,KR	79
no	Sep 22	NO OBSERVATION (Weather)				100	St	low cloud and fog obscuring ridge		no
3	Sep 23	13	6	W-WSW	10-45g55	30-90	Cu,Ac,Ci	showers around noon; rain 1645-1655	WS	105
4	Sep 24	12	4	C-W	0-40	100-10	St,Cu,Ci,As	ridge partially covered to 0940	VR,WS	64
5	Sep 25	14.5	5	W-WSW	10-30g45	0-90	Cs,Ci,Cu	cloudless to 1135	WS	178
6	Sep 26	15	9	W	20-30g55	100	As,Cs,Cu	dark Cu after 1700	WS	162
no	Sep 27	NO OBSERVATION (Weather)				100	Sc	low cloud and rain all day		no
7	Sep 28	3	3	E	10	100	St	rain and low St to 1400; obsc. after 1700	E,VR	2
no	Sep 29	NO OBSERVATION (Weather)				100	St	rain and snow; ridge obscured		no
no	Sep 30	NO OBSERVATION (Weather)				100	St	snow, ridge obscured		no
8	Oct 1	9	1	W-E	20-30g40	70-100	Cu,Sc	1520 wind E bringing fog	WS	92
no	Oct 2	NO OBSERVATION (Weather)				100	St	heavy snow all day; ridge obscured		no
9	Oct 3	-2	-13	W-E	5-10	0-90	Cu,Cs	54 cm fresh snow	LC road	86
10	Oct 4	-2	-5	WSW-E	4-10	100	St,As,Cs,Ac,Cu		LC road	107
11	Oct 5	6	-1	WNW-W	20-35g55	0-100	As,Ac	gloomy in pm	WS	205
12	Oct 6	7	-2	var-E	<8	0-20	Cs,Cu		WS	234
13	Oct 7	9	0	NW-W	3-10g15	0-80	Ci,Cu,Ac		WS	150
no	Oct 8	NO OBSERVATION (Weather)				100	St	low St, fog, rain: ridge obscured		no
no	Oct 9	NO OBSERVATION (Weather)				100	St	low St, light snow: ridge obscured		no
14	Oct 10	-2	-4	SE-E	0-10	100	St	snow to 1000; overcast all day	WS	18
15	Oct 11	7	-9	C-W	0-30g50	0-80	lent,Ci	cloudless to 1430	WS,KR	138
16	Oct 12	10	5	W-N	50-60g90	0-70	Cu	cold front at 1800: rain	WS,KR	140
17	Oct 13	0	-2	C, NE-SE	0-10	100	Sc	snow/ridges obsc in am, snow1400-1630	WS	32
18	Oct 14	4	-2	W	20-35g50	40-100	As,Ac,Ci	mainly gloomy	WS	67
19	Oct 15	11	3	W-WSW	30-40g50	70-100	Cs,Ci,Cu,Ac	hazy sunshine	WS	675
20	Oct 16	16	6	W-WSW	25g35	0			WS	319
21	Oct 17	17	7	WNW-W	20-40g55	0-10	Ci		WS,VR	226
22	Oct 18	16	10	W-WSW	25-35g55	10-100	As,Ci,Ac		WS	176
23	Oct 19	16	1	W-WSW	0-15g20	10-80	Cs,Ac,As,Ci		WS	74
24	Oct 20	18	10	WSW	4050g60	0			WS	129
25	Oct 21	16	6	WNW-SE	10-20	30-100	Cs	wind-shift at 1400	WS	63
26	Oct 22	16	-3	W-WSW	10-15g22	0-30	Cs	cloudless to 1130	VR	85
27	Oct 23	22	8	W-SW	10-20g25	0-60	Ci	cloudless to 1100	WS	65
28	Oct 24	13	9.5	W-WSW	30-50g70	10-100	As,Ac,Cu	Chinook arch to 1130	WS	71
29	Oct 25	11	7	WSW-W	30-50g80	10-100	Cu,Ci,Cs,Cc,As,Ac		WS,KR	111
30	Oct 26	10	6	WSW-W	40-50g80	100-80	St, Cu,Ci,Cs,Cc	light rain showers in am and late pm	WS	54
31	Oct 27	10	4	W-WSW	10-40g70	0-100	Ci,Cs,Ac	cloudless to 1530	WS	64
32	Oct 28	9	2	W-WSW	0-20g70	100	St,Cu,As,Ci	wind light to 1100; rain to 1110	WS,KR	52
33	Oct 29	6	2	W-WSW	15-35g45	70-100	As,Ac,Cu,Ci		WS,KR	126

34	Oct	30	8	0.5	W	30-40g50	90-0	Cs,Ac,Cu,Ci		WS	70
35	Oct	31	5	1	WSW	30-40g60	100-10	Cu,As	very light snow to 1340	WS,KR	59
36	Nov	1	5	0	SW-ESE	0-10	100-70	Cu,Sc,Ac	100% dark Sc after 1330	WS,KR	15
37	Nov	2	8.5	5	W-SSE	40-50g80	70-100	As,Cu,Sc	light SSE late pm; light rain after 1400	WS	39
38	Nov	3	7	3	W-WSW	30-50g60	100-60	As,Ac,lent,Cu	v light rain showers in pm	WS	42
39	Nov	4	7	3	W-WSW	40-50g80	100-10	Cu,Sc,	rain/sleet to 0800	WS	17
40	Nov	5	-4	-6	ESE-E	10-15	100	fog, St	fog obsc ridges to 1330	WS	0
41	Nov	6	-8	-9	E-SE	0-8	100	Sc	light snow all day; ridges obsc to 1100	WS	0
42	Nov	7	-4.5	-11	W-WSW	0-5	80-0	Cu,Cs,Ci	ridges obscured by ice fog to 1000	WS	2
43	Nov	8	1	-4	W-WNW	20-30g40	0			WS	45
44	Nov	9	0	-3	WSW-W	30-45g75	100-30	As,Ac,Ci	light snow 1245-1320 and 1412-1440	WS	53
45	Nov	10	2	-6	W-SW	5-10	100-0	Cu,Ac,Sc	light snow to 0925 and 1020-1150	WS	36
46	Nov	11	-3	-6	C-var	0-6	100-0	Sc, Cu	snow to 1300	WS	27
47	Nov	12	2	-3	W	30-40g70	10-80	Ac,Ci		WS	70
48	Nov	13	6	1	W-WSW	30-60g90	100-70	As,lent,Ac,Cs		WS	19
49	Nov	14	5.5	0	W	40-60g90	20-100	Ac,Ci,As,Cu,	snow 1410-1630, ridge obsc after 1630	WS,KR	30
50	Nov	15	5	1	W-WSW	40-50g70	70-100	As,Cu, Ac,Ci	mainly gloomy	WS	38
TOTAL											4755
OBSERVATION SITES											
	VR		Vicky Ridge, ridge top								
	WS		Waterton 61 wellsite on western flank of Vicki Ridge (500 m W of VR site)								
	KR		Kyllo Ridge, western edge near Waterton 68 wellsite (2 km W of VR site)								
	E		Seven-Gates road east of Vicki Ridge								
	LC		Lynx Creek Road, 4 km n of Waterton 61 wellsite								

TABLE 10

YEARLY SUMMARY FALL TOTALS, VICKI RIDGE 2014-2018

	days	hrs.	TV	OS	BE	NH	SS	CH	NG	BW	SW	RT	FH	RL	GE	AK	ME	GY	PG	PR	UA	UB	UE	UF	UU	T	raptors/hr
2014	11	37.28	0	1	33	4	62	15	32	2	0	28	0	103	114	1	0	0	1	1	7	1	0	0	0	405	10.86
2015	34	134.8	2	2	135	10	253	32	39	4	0	60	0	110	635	9	12	2	0	4	12	1	9	0	9	1340	9.94
2016	43	282.6	1	3	253	16	521	49	77	7	0	117	3	313	1424	17	22	1	13	5	6	4	15	1	0	2868	10.15
2017	52	418.9	0	11	350	19	751	94	109	33	1	234	6	515	2001	21	20	5	17	5	6	19	18	2	0	4237	10.20
2018	50	434.9	0	8	445	15	627	74	103	24	2	176	8	436	2735	12	21	5	9	10	7	25	7	2	4	4755	10.93
TOTAL	190	1309	3	25	1216	64	2214	264	360	70	3	615	17	1477	6909	60	75	13	40	25	38	50	49	5	13	13605	
COMPLETE COUNTS (September 20-November 15)																											
	days	hrs.	TV	OS	BE	NH	SS	CH	NG	BW	SW	RT	FH	RL	GE	AK	ME	GY	PG	PR	UA	UB	UE	UF	UU	T	raptors/hr
2017	52	418.9	0	11	350	19	751	94	109	33	1	234	6	515	2001	21	20	5	17	5	6	19	18	2	0	4237	10.20
2018	50	434.9	0	8	445	15	627	74	103	24	2	176	8	436	2735	12	21	5	9	10	7	25	7	2	4	4755	10.93
18 cf 17	-3.8	3.8		-27.3	27.1	-21.1	-16.5	-21.3	-5.5	-27.3	100.0	-24.8	33.3	-15.3	36.7	-42.9	5.0	0.0	-47.1	100.0	16.7	31.6	-61.1	0.0		12.2	7.2
September																											
2017	11	91	0	7	11	9	368	48	33	14	1	70	4	1	112	16	11	1	7	0	1	2	0	0	0	716	7.87
2018	7	64	0	5	17	11	264	34	13	13	2	51	2	10	181	8	12	0	5	2	0	1	1	1	1	634	9.90
18 cf 17	-36.4	-29.5		-28.6	54.5	22.2	-28.3	-29.2	-60.6	-7.1	100.0	-27.1	-50.0	900	61.6	-50.0	9.1	-100	-28.6		-100	-50.0				-11.5	25.8
October																											
2017	29	242	0	4	186	10	382	46	65	19	0	164	2	486	1694	5	9	2	10	4	5	16	14	2	0	3125	12.91
2018	28	254	0	3	297	4	362	40	80	11	0	122	6	392	2309	4	8	4	4	3	7	24	4	1	3	3688	14.52
18 cf 17	-3.4	4.9		-25.0	59.7	-60.0	-5.2	-13.0	23.1	-42.1		-25.6	200	-19.3	36.3	-20.0	-11.1	100	-60.0	-25.0	40.0	50.0	-71.4	-50.0		18.0	12.5
November																											
2017	12	86	0	0	153	0	1	0	11	0	0	0	0	28	195	0	0	2	0	1	0	1	4	0	0	396	4.60
2018	15	117	0	0	131	0	1	0	10	0	0	3	0	34	245	0	1	1	0	5	0	0	2	0	0	433	3.70
18 cf 17	25.0	36.0			-14.4		0.0		-9.1					21.4	25.6			-50		400.0		-100	-50.0			9.3	-19.6

TABLE 12

STEEPLES, FALL 2018, SUMMARY WEATHER

Day #			TEMP	RIDGE-WIND		CLOUD		PRECIPITATION & NOTES	RIDGES	# Migrant Raptors	SITE
			°C	Direction	Velocity	%	type				
1	Sep	20	9	S	M-C	100-70	St,As,Cu	rain and overcast to 1330	draped	42	BN
2	Sep	21	13	S	M-C	100	As,Cu,As	rain to early pm; calm after 1600	clear after 1400	14	BN
3	Sep	22	16	S-SW	M-S	100	St,As,Cu	rain 1330-1400, and 1700	clear	3	BN
4	Sep	23	15	W-NW	L-M	70-100	Cu	sunny periods	clear	11	BN
5	Sep	24	18	W-NW	L	40-20	Cu	sunny	clear	3	BN
6	Sep	25	14	calm		40-60	Ac,As	sunny	clear	3	BN
7	Sep	26	17	calm		100	As	cloudy	clear	0	BN
8	Sep	27	17-10	NW-N	M	100	As,Cu	rain	clear	6	BN
9	Sep	28	10-12	NW	M-C	50-100	Cu,As	calm after 1600	clear	12	BN
10	Sep	29	10	S	S	70-100	Ac, dark Cu	cloudy	clear	7	BN
	Sep	30	NO OBSERVATION					low cloud all day	obscured	no	
	Oct	1	NO OBSERVATION					low cloud all day	obscured	no	
	Oct	2	NO OBSERVATION					heavy rain all day	obscured	no	
11	Oct	3	6	calm		100	St, low Cu	cloudy	obscured	1	BN
12	Oct	4	6	W	L-C	100-70	Ac,Cu,As,	mts. Obscured all day	obscured	66	WASA
13	Oct	5	7	calm		100	St,As,dark Cu	mts. Obscured all day	obscured	15	WASA
14	Oct	6	10-7	N-NW	L-M	20-40	Cu	sunny	clear	104	BN
15	Oct	7	10	var	C-L	10-20	Cu	sunny	clear	22	BN
16	Oct	8	9	calm		90-100	As,Cu	cloudy	clear	8	BN
17	Oct	9	9	NW-E	M	60-80	Cu,As	partly sunny	clear	11	BN
18	Oct	10	11	calm		30-60	As,Cu,Ac	sunny	clear	2	BN
19	Oct	11	10	calm		0-70-20	Ac	sunny; cloudless to 1300	clear	12	BN
20	Oct	12	13	S-W-N	M	40-60	Cu	sunny	clear	0	BN
21	Oct	13	8	C-N	C-S	100-50	AS,Cu	partly sunny; strong N winds 1500+	clear	26	BN
22	Oct	14	3-7	calm		60-0	As	sunny	clear	10	BN
23	Oct	15	12	calm		10-40	As	sunny	clear	5	BN
24	Oct	16	12	calm		0		sunny	clear	17	BN
25	Oct	17	12	calm		0		sunny	clear	4	BN
26	Oct	18	6-9	calm		90-30	As,Ac	sunny	clear	0	BN
27	Oct	19	12	calm		30-0	Ci	sunny	clear	9	BN
28	Oct	20	12	calm		0		sunny	clear	2	BN
	Oct	21	NO OBSERVATION					(away from site)		no	
29	Oct	22	13	calm		0		sunny	clear	0	BN
30	Oct	23	11	calm		0		sunny	clear	3	BN
31	Oct	24	13	S	M-S	40-60	Cu	showers to 1530; partly sunny	clear	0	BN
32	Oct	25	12-9	S	S	90-100	As,Cu	light rain 1620-1700, cloudy	clear	1	BN
	Oct	26	NO OBSERVATION					rain to 1400	obscured	no	
33	Oct	27	12	SW-C	M-C	30-40	Cu,Ci	ridges clear by 1230, then sunny	clear	5	BN
34	Oct	28	11	calm		60	St,Cu	showers 1420-1500	obscured	1	WASA
35	Oct	29	10	var	L	80	Cu,St	partly sunny	partially obscured	0	BN
36	Oct	30	10	W-S	L	60	Cu,As	partly sunny	clear	0	BN

37	Oct	31	8	S	M	90	St,Cu	partly sunny	partially obscured	0	BN
38	Nov	1	6	calm		100	As,dark Cu	cloudy	partially obscured	2	BN
39	Nov	2	12	S	M	100-40	St,Cu,lent	rain to 1230, then partly sunny	partially obscured	4	BN
40	Nov	3	5-9	S-C	S-C	60-100	As,Ac,dark Cu	ridges clear by 1330, partly sunny	partially obscured	7	BN
41	Nov	4	8	SW-C	M-C	100-20	As,St,Cu	light rain 1330-1430, then sunny	partially obscured	8	BN
42	Nov	5	8-6	E	M	100	St,Cu,As	rain after 1630	partially obscured	3	BN
43	Nov	6	5	W-C	L-C	40-100	St,Cu	partly sunny	partially obscured	10	BN
44	Nov	7	1	calm		60	St,Cu	partly sunny	partially obscured	7	SL
45	Nov	8	1	calm		60-30	St,Cu	partly sunny	mainly obscured	11	BN
	Nov	9	NO OBSERVATION					wet snow flurries	obscured	no	
46	Nov	10	2	calm		100	As,Sc	mountains obscured all day	obscured	0	WASA/BN
47	Nov	11	1	calm		60-40	St,Cu	sunny	obscured	7	BN
48	Nov	12	1 to -1	calm		100	As,St,Ac	cloudy	obscured	1	BN
49	Nov	13	4	calm		50	As,Cu,St	sunny periods	clear	1	DC
	Nov	14	NO OBSERVATION					periods of rain all day	obscured	no	
50	Nov	15	6	S-SW	S	100	St,As,Cu	cloudy	clear	0	BN
TOTAL										486	
SITES											
	BN	Mount Bill Nye									
	SL	South Lakit									
	WASA	Wasa lake (formerly Kootenay River near Wasa)									
	DC	Diorite Creek									

TABLE 13

YEARLY SUMMARY FALL TOTALS, STEEPLES 2009-2018

	days	hrs.	TV	OS	BE	NH	SS	CH	NG	BW	SW	RT	FH	RL	GE	AK	ME	GY	PG	PR	UA	UB	UE	UF	UU	T	raptors/hr
2009	41	148	2	1	146	7	37	4	5	0	0	9	0	13	226	1	1	0	0	0	0	0	1	0	0	453	3.06
2010	34	145.5	0	1	191	2	18	0	2	0	0	7	0	8	162	0	0	0	0	0	0	4	4	0	0	399	2.74
2011	23	73.5	0	1	130	0	15	0	2	0	0	18	0	1	93	1	0	0	1	0	0	0	1	0	0	263	3.58
2012	12	36	1	0	74	1	3	0	2	0	0	0	0	5	22	0	0	0	0	0	0	0	0	0	0	108	3.00
2013	16	43	0	0	21	0	12	0	2	0	0	6	0	3	106	0	0	0	0	0	0	0	0	0	0	150	3.49
2014	37	126.5	0	2	128	3	31	0	5	0	0	38	0	2	64	4	0	0	0	0	0	0	0	0	0	277	2.19
2015	35	123.3	0	4	230	3	35	2	2	0	0	12	0	3	96	1	0	0	0	0	0	0	0	0	0	388	3.15
2016	37	161.8	1	7	222	8	103	2	9	0	0	49	0	11	206	6	2	0	2	1	0	0	0	0	0	629	3.89
2017	41	185	1	7	276	16	78	1	13	5	0	51	0	15	146	8	2	0	2	0	0	1	3	0	0	625	3.38
2018	50	212.5	1	2	116	14	72	4	8	3	0	75	0	3	177	3	3	1	1	0	0	0	2	0	1	486	2.29
TOTAL	326	1255	6	25	1534	54	404	13	50	8	0	265	0	64	1298	24	8	1	6	1	0	5	11	0	1	3778	
Av 09-17	30.7	115.8	0.56	2.56	158	4.44	36.9	1	4.67	0.556	0	21.1	0	6.78	124.56	2.33	0.56	0	0.56	0.11	0	0.56	1	0	0	365.78	3.14
18 cf Av	63	83.45	80	-21.7	-26.4	215	95.2	300	71.4	440		255		-55.7	42.105	28.6	440		80	-100		-100	100			32.87	7.75

TABLE 14

Comparison of the three RMERF sites, fall 2018

	DAYS	HRS	TV	OS	BE	NH	SS	CH	NG	BW	SW	RT	FH	RL	GE	AK	ML	GY	PG	PR	UA	UB	UE	UF	UU	TOTAL	raptors/hr
Mount Lorette	53	536.29	0	3	217	7	68	7	37	1	1	27	0	36	2698	0	4	2	2	3	8	5	35	4	4	3169	5.91
Vicki Ridge	50	434.9	0	8	445	15	627	74	103	24	2	176	8	436	2735	12	21	5	9	10	7	25	7	2	4	4755	10.93
Steeples	50	212.5	1	2	116	14	72	4	8	3	0	75	0	3	177	3	3	1	1	0	0	0	2	0	1	486	2.29
TOTALS	153	1183.7	1	13	778	36	767	85	148	28	3	278	8	475	5610	15	28	8	12	13	15	30	44	6	9	8410	

TABLE 15A

SPECIES MEDIAN PASSAGE DATES

IMMATURE:ADULT AGE RATIOS

	SPECIES MEDIAN PASSAGE DATES		IMMATURE:ADULT AGE RATIOS	
	VICKI RIDGE	MOUNT LORETTE	VICKI RIDGE	MOUNT LORETTE
TURKEY VULTURE				
OSPREY	24-Sep			
BALD EAGLE	27-Oct	21-Oct	0.62	0.64
NORTHERN HARRIER	25-Sep	28-Sep	1	
SHARP-SHINNED HAWK	03-Oct	04-Oct	0.11	0.6
COOPER'S HAWK	01-Oct	28-Sep	0.25	
NORTHERN GOSHAWK	21-Oct	12-Oct	0.14	0.31
BROAD-WINGED HAWK	26-Sep		0.33	
SWAINSON'S HAWK				
RED-TAILED HAWK	05-Oct	06-Oct	0.1	0.55
FERRUGINOUS HAWK	07-Oct		0.33	
ROUGH-LEGGED HAWK	19-Oct	14-Oct		
GOLDEN EAGLE	15-Oct	15-Oct	0.39	0.42
AMERICAN KESTREL	25-Sep			
MERLIN	26-Sep			
GYRFALCON	16-Oct			
PEREGRINE FALCON	24-Sep			
PRAIRIE FALCON	28-Oct			
COMBINED SPECIES	15-Oct	15-Oct		
(Note: statistics are not calculated for less than 4 birds)				

TABLE 15B**PERCENTAGE OF RAPTOR GROUPS**

	MOUNT LORETTE	VICKI RIDGE	STEEPLES
TURKEY VULTURE	0	0	0.21
OSPREY	0.09	0.17	0.41
BALD EAGLE	6.85	9.36	23.87
NORTHERN HARRIER	0.22	0.32	2.88
ACCIPITERS	3.81	17.06	17.28
BUTEOS	2.21	14.11	16.67
GOLDEN EAGLE	85.11	57.52	36.42
FALCONS	0.47	1.24	1.65
EAGLES	93.06	67.02	60.7
NON-EAGLE RAPTORS	6.94	32.92	39.3