

TABLE 1A																											
RMERF, ALBERTA FRONT RANGES FALL COUNTS: PRINCIPAL SITES 1992-2016																											
	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	SITE
1992	33	280.38	0	0	194	3	194	36	136	3	0	29	0	16	2044	2	3	1	0	0	0	0	0	0	0	2661	ML
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	ML
1994	83	737.24	0	1	370	8	210	40	32	15	1	63	0	42	3836	11	21	2	5	7	5	4	1	0	0	4674	ML
1995	82	671.7	0	9	378	37	309	39	11	9	2	71	0	69	3704	4	16	4	4	3	1	5	0	1	0	4676	ML
1996	83	701.52	0	6	297	20	219	42	9	27	0	59	1	65	3913	20	13	0	5	4	1	6	0	0	0	4707	ML
1997	85	858.1	0	4	607	66	589	39	11	0	1	100	1	210	3853	23	22	15	9	6	7	5	0	7	5	5580	PM
1998	95	850	1	5	317	30	152	44	32	20	1	131	2	89	3395	18	8	6	3	4	8	5	1	2	4	4278	ML
1999	101	1007.06	0	14	312	35	238	41	30	26	4	76	0	70	3475	7	12	13	6	1	15	3	1	2	13	4394	ML
2000	94	623.63	0	2	510	15	175	25	140	3	0	17	0	68	4587	1	12	2	1	1	7	0	1	1	6	5574	ML
2001	101	1112.32	0	9	448	15	291	41	118	5	1	109	0	56	3683	9	22	6	7	2	15	2	0	3	2	4844	ML
2002	14	83.75	0	0	54	4	35	12	4	0	0	1	0	10	1522	1	5	0	0	0	3	2	1	0	1	1655	ML
2003	82	896.87	0	11	276	17	198	46	61	6	3	62	0	34	3783	6	19	1	5	1	20	4	2	0	13	4568	ML
2004	96	1094.66	0	18	418	24	179	50	69	6	1	41	0	71	3774	14	13	9	14	4	19	2	5	1	20	4752	ML
2005	75	844.23	0	5	304	7	96	22	46	6	1	18	1	80	3949	2	7	3	2	3	16	2	2	2	10	4584	ML
2006	84	892.41	0	11	482	76	1247	220	154	10	2	283	1	141	4400	33	45	6	14	18	45	6	6	3	14	7217	P-SL
2007	100	1047.98	0	17	700	56	1219	191	166	13	1	188	4	83	5445	37	27	9	35	18	57	2	12	2	7	8289	P-SL
2008	95	1036.97	0	27	466	49	1452	235	245	20	3	209	1	97	5209	18	32	3	35	17	59	11	32	3	15	8238	P-SL
2009	103	1142.77	0	49	684	100	1015	302	136	45	7	195	10	85	4293	65	29	10	48	12	35	7	4	3	11	7145	P-SL
2010	55	577.18	0	4	165	6	67	15	34	1	0	44	1	23	3222	2	2	0	4	4	16	9	12	1	10	3642	ML
2011	55	590.77	0	3	137	2	113	33	42	0	0	28	0	41	3466	2	6	2	10	2	3	2	2	3	2	3899	ML
2012	52	530.09	0	2	128	6	63	10	30	1	0	26	0	61	2635	0	5	1	6	2	5	2	2	1	1	2987	ML
2013	51	516.85	0	1	95	7	97	18	25	0	0	20	0	32	2782	1	6	0	4	1	6	5	5	3	2	3110	ML
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	ML
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	ML
2016	56	577.05	0	5	213	9	133	11	32	5	1	27	1	24	2973	4	8	0	10	2	13	9	11	3	5	3499	ML
TOTAL	1843	18331	1	211	8355	636	8859	1573	1723	237	29	1927	25	1633	90708	283	366	109	249	118	382	113	125	46	145	117891	
L	MOUNT LORETTE																										
PM	PLATEAU MOUNTAIN																										
P-SL	PIITAISTAKIS-SOUTH LIVINGSTONE																										
TABLE 1B																											
RMERF, MOUNT LORETTE FALL COUNTS 1992-2016																											
	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	
1992	33	280.38	0	0	194	3	194	36	136	3	0	29	0	16	2044	2	3	1	0	0	0	0	0	0	0	2661	
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	83	737.24	0	1	370	8	210	40	32	15	1	63	0	42	3836	11	21	2	5	7	5	4	1	0	0	4674	
1995	82	671.7	0	9	378	37	309	39	11	9	2	71	0	69	3704	4	16	4	4	3	1	5	0	1	0	4676	
1996	83	701.52	0	6	297	20	219	42	9	27	0	59	1	65	3913	20	13	0	5	4	1	6	0	0	0	4707	
1997*	85	37.25	0	2	10	1	38	4	2	1	0	2	0	10	164	0	3	0	1	0	6	0	0	0	2	246	
1998	95	850	1	5	317	30	152	44	32	20	1	131	2	89	3395	18	8	6	3	4	8	5	1	2	4	4278	
1999	101	1007.06	0	14	312	35	238	41	30	26	4	76	0	70	3475	7	12	13	6	1	15	3	1	2	13	4394	
2000	94	623.63	0	2	510	15	175	25	140	3	0	17	0	68	4587	1	12	2	1	1	7	0	1	1	6	5574	
2001	101	1112.32	0	9	448	15	291	41	118	5	1	109	0	56	3683	9	22	6	7	2	15	2	0	3	2	4844	
2002	14	83.75	0	0	54	4	35	12	4	0	0	1	0	10	1522	1	5	0	0	0	3	2	1	0	1	1655	
2003	82	896.87	0	11	276	17	198	46	61	6	3	62	0	34	3783	6	19	1	5	1	20	4	2	0	13	4568	
2004	96	1094.66	0	18	418	24	179	50	69	6	1	41	0	71	3774	14	13	9	14	4	19	2	5	1	20	4752	
2005	75	844.23	0	5	304	7	96	22	46	6	1	18	1	80	3949	2	7	3	2	3	16	2	2	2	10	4584	
2006*	32	355.25	0	3	89	7	200	27	29	5	0	23	0	80	2263	1	11	0	0	1	3	1	4	0	1	2748	
2007*	25	249.5	0	0	64	3	48	29	10	1	0	10	0	2	1953	0	3	1	3	3	8	1	3	7	1	2150	
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*	46	492.33	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	577.18	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	590.77	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	530.09	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	516.85	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	577.05	0	5	213	9	134	11	32	5	1	27	1	24	2973	4	7	0	11	2	13	9	11	3	5	3500	
TOTAL	1594	14802	1	113	5745	312	3706	666	1095	160	15	1009	8	1137	76302	110	237	68	118	54	201	90	92	40	107	91424	
1997*	main count at Plateau Mountain																										
2006-2009*	main count at Piitaistakis-South Livingstone																										

TABLE 2

Mount Lorette, Alberta, fall 2016																										OBSERVERS		
September 20 to November 15 (56 days, 577.1 hours)																										principal	assistants	
day	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		
1	2016/09/20	10.5	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3	JDu	
2	2016/09/21	11.75	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3	GH	RR
3	2016/09/22	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	CHa	BS
4	2016/09/23	12	0	0	3	2	12	0	0	0	0	8	0	0	88	1	0	0	0	0	1	0	0	0	0	115	JDa	CL,MT
5	2016/09/24	13	0	1	1	1	10	1	7	0	0	0	0	0	82	0	0	0	2	0	2	0	0	0	0	107	BWi	RM
6	2016/09/25	11.5	0	1	8	0	1	0	1	3	0	2	0	0	57	0	1	0	0	0	0	0	0	0	0	74	JDa	CL,EL
7	2016/09/26	11	0	0	0	0	0	0	0	0	0	1	0	0	36	0	0	0	0	0	0	0	0	0	0	37	TW	PkF,JW
8	2016/09/27	11	0	0	0	0	7	1	0	0	0	1	0	0	12	0	0	0	0	0	2	2	1	0	0	26	BmB	BWe
9	2016/09/28	11	0	0	1	0	5	0	4	0	1	2	0	2	28	0	0	0	0	0	0	1	0	0	0	44	JDu	RR
10	2016/09/29	11.33	0	1	4	0	23	2	4	0	0	3	0	0	89	0	1	0	0	0	4	0	0	1	3	135	CHa	BWe
11	2016/09/30	12.25	0	0	0	1	25	1	2	0	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	96	GH	DP,CP
	September	121.33	0	3	17	4	85	6	19	3	1	17	0	2	459	3	2	0	2	0	9	3	1	1	3	640		
12	2016/10/01	9.25	0	0	4	0	10	1	1	2	0	0	0	0	57	0	0	0	0	0	0	0	0	0	0	75	JDa	RM
13	2016/10/02	12.5	0	0	11	0	0	0	1	0	0	1	0	0	164	0	0	0	0	0	0	0	0	0	0	177	BWi	LA
14	2016/10/03	11	0	1	0	1	2	0	0	0	0	1	0	0	145	0	0	0	0	0	0	1	0	0	0	151	TW	DS, JW,PF
15	2016/10/04	11	0	0	0	0	2	0	0	0	0	0	0	0	24	0	0	0	0	0	1	0	1	0	0	28	BmB	HU
16	2016/10/05	11	0	1	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	12	JDu	RR
17	2016/10/06	11.5	0	0	6	0	1	0	0	0	0	0	0	0	22	0	0	0	0	0	1	0	0	0	0	30	BWe	MT,CHa
	2016/10/07	NO OBSERVATION																										
18	2016/10/08	7	0	0	1	0	4	0	0	0	0	0	0	0	9	0	0	0	1	0	0	0	0	0	0	15	JDa	RM
19	2016/10/09	11.83	0	0	5	2	1	0	0	0	0	0	0	4	3	0	1	0	0	0	0	0	0	0	2	18	BWi	LA
20	2016/10/10	6	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	JDu	RM
21	2016/10/11	11.5	0	0	0	0	1	0	0	0	0	1	0	4	41	0	0	0	0	0	0	0	0	0	0	47	BmB	BWe
22	2016/10/12	10.5	0	0	4	0	3	0	0	0	0	2	0	0	286	0	0	0	0	0	0	1	0	0	0	296	TW	DS
23	2016/10/13	12.25	0	0	2	0	3	0	0	0	0	0	0	0	311	0	0	0	0	0	1	1	0	0	0	318	BWe	RR,CHa,J&TB
24	2016/10/14	11.16	0	0	4	0	1	0	0	0	0	1	0	1	110	0	0	0	0	0	0	0	0	0	0	117	GH	DP
25	2016/10/15	10.75	0	0	3	1	3	1	0	0	0	1	0	0	42	0	1	0	3	1	0	0	0	0	0	56	JDa	RM
26	2016/10/16	11.67	0	0	1	0	1	0	1	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	33	BWi	LA,CHa
27	2016/10/17	7.5	0	0	1	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	21	JDu	RR
28	2016/10/18	10.5	0	0	0	0	0	0	1	0	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0	19	BmB	HU
29	2016/10/19	10	0	0	1	0	0	0	0	0	0	0	0	0	47	0	0	0	0	0	0	0	0	1	0	49	TW	DS, CL
30	2016/10/20	10.75	0	0	1	0	1	0	0	0	0	0	0	0	105	0	1	0	0	0	0	0	0	0	0	108	BWe	CHa
31	2016/10/21	11.5	0	0	4	0	2	0	2	0	0	0	0	2	91	0	0	0	0	0	0	0	0	0	0	101	GH	DP,CP,CHa
32	2016/10/22	10.83	0	0	15	0	3	1	0	0	0	2	1	1	127	1	1	0	1	0	0	0	0	0	0	153	JDa	RM
33	2016/10/23	11.5	0	0	12	0	1	0	2	0	0	0	0	1	130	0	0	0	0	0	0	0	0	0	0	146	BWi	LA
34	2016/10/24	10	0	0	0	0	0	0	0	0	0	0	0	0	22	0	1	0	0	0	0	0	0	0	0	23	TW	PkF,CL,JstL,JW
35	2016/10/25	10.5	0	0	1	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	18	BmB	BWe,CHa
36	2016/10/26	10	0	0	1	1	0	0	0	0	0	0	0	1	18	0	0	0	0	0	0	0	0	0	0	21	JDu	RR, CHa
37	2016/10/27	10.25	0	0	2	0	0	0	1	0	0	0	0	1	14	0	0	0	0	0	0	0	0	0	0	18	BWe	CHa
38	2016/10/28	10.16	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5	GH	DP
39	2016/10/29	10	0	0	4	0	0	0	0	0	0	0	0	0	11	0	0	0	1	0	0	0	1	0	0	17	JDa	RM
40	2016/10/30	10.92	0	0	4	0	1	0	0	0	0	0	0	2	18	0	0	0	0	0	0	0	0	0	0	25	BWi	LA
41	2016/10/31	9.5	0	0	3	0	2	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	30	TW	DS, PkF
	October	312.82	0	2	91	5	42	3	9	2	0	9	1	17	1923	1	5	0	6	1	3	3	2	1	2	2128		
42	2016/11/01	10.5	0	0	4	0	1	0	0	0	0	0	0	0	67	0	0	0	0	1	0	0	0	1	0	74	BmB	BWe,CHa
43	2016/11/02	10.16	0	0	7	0	1	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	24	BWe	RR
44	2016/11/03	10	0	0	3	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	0	0	0	0	0	24	JDu	CHa
45	2016/11/04	11.16	0	0	6	0	1	0	0	0	0	0	0	0	111	0	0	0	0	0	0	0	0	0	0	118	GH	DP,RP,EL,PP
46	2016/11/05	11.16	0	0	9	0	1	0	1	0	0	0	0	3	60	0	0	0	0	0	0	1	2	0	0	77	JDa	BWe
47	2016/11/06	11	0	0	4	0	0	0	0	0	0	0	0	1	13	0	0	0	1	0	1	0	2	0	0	22	BWi	LA, CHa
48	2016/11/07	9.5	0	0	4	0	2	0	1	0	0	0	0	0	111	0	0	0	1	0	0	1	1	0	0	121	TW	DS, CHa
49	2016/11/08	10	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	2	0	0	22	BmB	BWe
50	2016/11/09	9.25	0	0	25	0	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	1	1	0	0	54	JDu	RR, AL
51	2016/11/10	10.42	0	0	18	0	0	0	0	0	0	0	0	0	77	0	0	0	0	0	0	0	0	0	0	95	BWe	CHa,CHu
52	2016/11/11	10.25	0	0	12	0	0	0	0	0	0	0	0	0	44	0	0	0	0	0	0	0	0	0	0	56	GH,BWe	DP,CP
53	2016/11/12	8.5	0	0	7	0	0	2	2	0	0	1	0	0	7	0	1	0	0	0	0	0	0	0	0	20	JDa	RM,CHa
54	2016/11/13	10	0	0	5	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	15	BWi	LA, PP
55	2016/11/14	3	0	0	1	0	0	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	9	TW	JW
56	2016/11/15	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	BmB	BWe,CHa
	November	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		
	TOTALS	577.05	0	5	213	9	133	11	32	5	1	27	1</															

TABLE 4

MOUNT LORETTE SUMMARY TOTALS, September 20 - November 15, 1993-1996, 1998-2001, 2003-2005, 2009-2016

	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	516.84	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	463.31	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	485.61	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	483.15	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	596.55	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	623.63	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	646.45	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	615.63	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	658.71	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	662.06	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	492.33	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	577.18	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	590.77	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	530.09	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	516.85	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	577.05	0	5	213	9	133	11	32	5	1	27	1	24	2973	4	8	0	10	2	13	9	11	3	5	3499	
TOTAL	1038	10694	1	52	4544	200	2614	431	843	119	7	637	7	982	65335	48	148	53	113	38	131	66	69	28	77	76543	
Av 93-15	54.555	562.047	5555555	1111111	1111111	1111111	3333333	3333333	5555555	3333333	3333333	3888888	3333333	2222222	5555555	4444444	7777777	4444444	2222222	2	5555555	6666666	2222222	3888888	4	4058	
16 cf Av	2.6	2.7	-100.0	91.5	-11.5	-15.2	-3.5	-52.9	-29.0	-21.1	200.0	-20.3	200.0	-54.9	-14.2	63.6	2.9		74.8	0.0	98.3	184.2	241.4	116.0	25.0	-13.8	
*	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	102.59	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	105.75	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	118.56	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	133.98	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	132.58	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	141.66	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	133.67	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	133.27	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	117.17	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	134.57	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	124.49	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	112.76	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	121.08	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	126.42	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	121.33	0	3	17	4	85	6	19	3	1	17	0	2	459	3	2	0	2	0	9	3	1	1	3	640
TOTAL	205	2269	1	41	345	94	1086	216	145	43	6	344	5	34	6993	30	55	4	33	11	63	19	8	4	33	9613
Av 93-15	10.8	119.3	0.1	2.1	18.2	5.0	55.6	11.7	7.0	2.2	0.3	18.2	0.3	1.8	363.0	1.5	2.9	0.2	1.7	0.6	3.0	0.9	0.4	0.2	1.7	498.5
16 cf Av	2.1	1.7		42.1	-6.7	-20.0	52.8	-48.6	171.4	35.0	260.0	-6.4		12.5	26.4	100.0	-32.1	-100.0	16.1	-100.0	200.0	237.5	157.1	500.0	80.0	28.4

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	263.81	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	254.32	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	313.63	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	287.45	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	342.47	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	358.14	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	307.24	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	318.48	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	324.12	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	287.85	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	300.09	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	324.49	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	340.08	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	312.82	0	2	91	5	42	3	9	2	0	9	1	17	1923	1	5	0	6	1	3	3	2	1	2	2128	
TOTAL	600	6347	0	11	2864	106	1513	209	589	77	1	281	3	842	55940	17	91	30	68	24	63	47	57	25	46	62904	
Av 93-15	30	317.614	0	0.4	210.5	4.7	368.4	5.7	89.4	7.36	10.5	26.3	1.2	10.5	26.3	1.2	10.5	26.3	1.2	10.5	26.3	1.2	10.5	26.3	1.2	10.5	3199
16 cf Av	0	-1.5094		22.2	22.2	-8.7	55.86	0.5	94.0	5.9	4.1	18.9	6.6	0.0	9.7	0.8	1.3	3.3	3.3	-1.0	2.3	5.2	9.4	3.3	3.3	3.3	-33

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	123.64	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	103.24	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	150.35	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	151.67	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	158.07	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	140.58	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	158.91	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	158.99	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	142.73	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	132.08	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	117.75	0	0	61	1	2	0	4	0	0	2	0	5	317	0	0	0	1	0	0	0	0	1	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	137.83	0	0	53	0	5</																			

TABLE 6																
MOUNT LORETTE: GOLDEN EAGLE: PASSAGE BY HOUR, FALL 2016																
	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	11	76	164	155	220	310	423	506	554	398	140	16		
-	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	W	W	W	W	W	W	W	W	W	W	W	w	w	0	0
	21	0	0	0	W	W	0	0	W	(W)	0	0	0	-	0	0
	22	-	(W)	(W)	(W)	W	W	W	W	w	w	w	w	w	0	0
	23	-	0	0	1	5	0	2	8	18	17	12	24	1	88	88
	24	0	0	0	3	7	7	16	12	7	2	19	5	4	82	170
	25	-	0	2	2	7	5	3	5	4	16	7	6	0	57	227
	26	-	0	8	7	0	5	3	2	4	1	4	2	-	36	263
	27	0	0	0	0	5	5	1	1	W	W	W	W	w	12	275
	28	-	-	0	0	1	5	5	5	10	1	1	0	-	28	303
	29	-	0	0	0	4	6	17	27	20	13	2	0	0	89	392
	30	W	3	3	8	12	6	3	3	2	4	22	1	0	67	459
OCT	1	W	W	W	W	W	(W)	11	5	1	12	26	2	w	57	516
	2	0	0	0	0	2	11	30	10	28	31	14	32	6	164	680
	3	-	0	0	3	5	20	48	21	23	11	13	1	-	145	825
	4	0	0	0	0	0	0	1	8	2	0	13	0	-	24	849
	5	w	W	W	W	W	W	W	W	6	5	W	W	-	11	860
	6	W	W	W	W	W	W	3	5	10	4	W	W	w	22	882
	7	w	W	W	W	W	w	w	w	w	w	w	w	w	0	882
	8	-	0	1	7	1	W	W	W	w	w	w	w	w	9	891
	9	W	W	W	W	W	W	W	1	1	W	1	W	W	3	894
	10	w	w	w	W	W	W	W	W	W	W	w	w	w	0	894
	11	-	0	0	1	3	0	3	6	2	6	4	12	4	41	935
	12	-	1	1	6	2	7	14	86	75	68	26	0	-	286	1221
	13	0	0	27	59	18	25	30	29	53	51	11	7	1	311	1532
	14	W	W	W	W	w	25	8	37	14	19	7	0	-	110	1642
	15	-	0	3	8	8	4	7	2	0	7	3	0	-	42	1684
	16	-	1	0	3	11	3	3	4	2	1	2	0	-	30	1714
	17	-	-	0	0	0	0	7	0	5	8	(W)	W	w	20	1734
	18	-	0	0	1	5	1	2	4	0	5	0	0	-	18	1752
	19	-	0	2	4	0	0	1	9	4	19	8	0	-	47	1799
	20	-	0	0	8	9	5	5	20	27	13	16	2	-	105	1904
	21	0	2	12	11	7	9	11	14	3	4	16	2	-	91	1995
	22	-	4	4	1	4	4	3	8	13	33	30	23	-	127	2122
	23	0	0	0	1	5	20	19	19	20	23	19	4	-	130	2252
	24	-	0	0	0	0	1	0	0	5	12	4	0	-	22	2274
	25	0	0	0	0	3	1	0	5	6	2	0	0	-	17	2291
	26	-	0	0	0	0	2	2	2	9	3	0	0	-	18	2309
	27	w	W	W	W	W	0	0	5	1	8	0	0	-	14	2323
	28	W	W	W	W	W	W	W	W	3	2	0	-	-	5	2328
	29	-	0	0	0	0	0	0	2	3	2	2	2	-	11	2339
	30	0	0	1	0	2	2	1	0	5	4	3	0	-	18	2357
	31	-	0	1	1	3	0	3	1	10	6	0	-	-	25	2382
NOV	1	-	0	0	0	3	4	3	9	21	16	11	0	-	67	2449
	2	-	0	1	1	3	3	4	1	0	1	2	0	-	16	2465
	3	-	0	0	0	1	1	1	0	2	4	12	0	-	21	2486
	4	0	0	3	8	5	8	7	6	25	26	14	9	-	111	2597
	5	0	0	1	3	3	9	8	3	8	10	15	0	-	60	2657
	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		
	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		
	6	0	0	0	0	1	0	0	1	1	6	4	0	-	13	2670
	7	-	-	3	7	2	9	13	16	25	26	10	0	-	111	2781
	8	-	0	0	0	0	0	3	6	3	4	4	0	-	20	2801
	9	-	-	0	3	1	0	0	4	9	9	1	0	-	27	2828
	10	-	0	0	1	1	0	2	2	6	32	30	3	-	77	2905
	11	-	0	0	6	5	3	6	5	4	3	9	3	-	44	2949
	12	-	-	0	0	0	3	1	2	1	0	0	-	-	7	2956
	13	-	0	3	0	1	1	0	1	1	2	1	0	-	10	2966
	14	w	w	W	W	W	W	W	1	4	2	0	-	-	7	2973
	15	-	0	0	0	W	W	W	W	W	W	w	w	w	0	2973
TOTALS		0	11	76	164	155	220	310	423	506	554	398	140	16	2973	
W	weather not conducive to raptor migration, directly observed.															
w	weather not conducive to raptor migration, not directly observed.															
(W)	weather with low probability of raptor migration, directly observed.															
(w)	weather with low probability of raptor migration, not directly observed.															
-	observer not present at site															

TABLE 7								
MEDIAN PASSAGE DATES AND AGE RATIOS, MOUNT LORETTE, FALL 2016								
	Species		Adults		Immatures		imm:adult	
OSPREY	29-Sep	+4 days						
BALD EAGLE	31-Oct	+8 days	3-Nov	+ 10 days	23-Oct	+ 3 days	0.81	+ 51.4%
NORTHERN HARRIER	3-Oct	+ 1 day	3-Oct		n/a		n/a	
SHARP-SHINNED HAWK	30-Sep	- 3 days	1-Oct	- 3 days	23-Sep	- 7 days	0.29	- 29.1%
COOPER'S HAWK	30-Sep	- 1 day	15-Oct	- 12 days	n/a		0.33	- 27.8%
NORTHERN GOSHAWK	29-Sep	- 13 days	29-Sep	- 12 days	30-Sep	- 12 days	0.35	+45.8%
BROAD-WINGED HAWK	25-Sep	- 10 days	n/a		n/a		0.33	-53.6%
RED-TAILED HAWK	28-Sep	- 1 day	27-Sep	- 2 days	25-Sep	- 5 days	0.5	+7.8%
ROUGH-LEGGED HAWK	21-Oct	+ 4 days	n/a		n/a		n/a	
GOLDEN EAGLE	13-Oct	+ 1 day	17-Oct	+ 3 days	12-Oct	+ 4 days	0.39	+37.1%
MERLIN	15-Oct	+ 11 days	n/a		n/a		n/a	
PEREGRINE FALCON	15-Oct	+ 11 days	15-Oct		n/a		0.4	+37.9%
COMBINED SPECIES	13-Oct	+ 1 day						
(Note: statistics are not calculated for less than 4 birds)								
- = earlier than average								
+ = later than average								

TABLE 8

Vicki Ridge, Alberta, fall 2016																									OBSERVERS		
September 20 to November 15 (43 days, 282.6 hours)																									principal	assistants	
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		
2016/09/20	NO OBSERVATION																								0		
2016/09/21	NO OBSERVATION (WEATHER)																								0		
2016/09/22	NO OBSERVATION (WEATHER)																								0		
1 2016/09/23	7.33	0	0	2	0	28	7	1	0	0	8	0	1	91	0	3	0	2	1	1	0	0	0	0	145	PS	RT,DCA
2 2016/09/24	6.5	0	0	3	0	102	11	3	2	0	14	0	0	31	5	2	0	0	0	1	1	0	0	0	175	PS	RT,DCA
3 2016/09/25	6.5	0	0	2	0	65	10	1	0	0	7	0	0	44	2	1	0	0	0	0	0	0	0	0	132	PS	RT,DCA,ML,JA
4 2016/09/26	6.5	0	0	0	0	32	3	1	1	0	6	0	1	5	3	0	0	0	0	0	0	0	0	0	52	PS	
5 2016/09/27	7	0	0	0	2	34	4	1	0	0	12	2	2	13	4	1	0	0	0	0	2	0	0	0	77	PS	Dml
6 2016/09/28	7.5	0	2	0	3	8	1	0	0	0	5	0	1	5	1	0	0	0	0	0	0	0	0	0	26	PS	RT,DCA,KL
2016/09/29	NO OBSERVATION																								0		
2016/09/30	NO OBSERVATION																								0		
September	41.33	0	2	7	5	269	36	7	3	0	52	2	5	189	15	7	0	2	1	2	3	0	0	0	607		
2016/10/01	NO OBSERVATION																								0		
2016/10/02	NO OBSERVATION																								0		
7 2016/10/03	4	0	0	2	0	2	0	3	0	0	1	0	0	24	0	0	0	0	0	0	0	0	0	0	32	DCA	SE
2016/10/04	NO OBSERVATION																								0		
2016/10/05	NO OBSERVATION																								0		
2016/10/06	NO OBSERVATION																								0		
2016/10/07	NO OBSERVATION																								0		
2016/10/08	NO OBSERVATION																								0		
2016/10/09	NO OBSERVATION																								0		
2016/10/10	NO OBSERVATION (WEATHER)																								0		
8 2016/10/11	2	0	0	0	0	0	0	0	3	0	0	0	3	11	0	0	0	0	1	0	0	0	0	0	18	PS	HA
9 2016/10/12	6	0	0	0	0	3	0	0	0	0	3	0	0	25	0	0	0	0	0	0	0	0	0	0	31	PS	HA,MT
10 2016/10/13	5.25	0	0	2	0	5	0	0	0	0	5	0	5	121	1	0	0	0	0	0	0	0	0	0	139	PS	HA
11 2016/10/14	4.67	0	0	9	0	4	0	0	0	0	3	0	4	104	0	1	0	0	0	0	1	1	0	0	127	PS	HA
12 2016/10/15	6.75	0	0	7	0	10	2	2	1	0	15	0	12	159	0	1	0	0	0	0	0	2	0	0	211	PS	D&CL,GM
13 2016/10/16	6.75	0	0	4	0	11	0	0	0	0	7	0	6	29	0	1	0	0	0	0	0	4	0	0	62	PS	
14 2016/10/17	2	0	0	0	0	0	0	1	0	0	2	0	11	8	0	0	0	0	0	0	0	0	0	0	22	PS	HA
15 2016/10/18	5.25	0	0	0	0	17	0	3	0	0	1	0	15	20	0	1	0	1	0	0	0	0	0	0	58	PS	HA
16 2016/10/19	5.5	0	0	6	0	16	1	7	0	0	1	0	6	26	0	0	0	0	0	0	0	0	0	0	63	PS	HA,DCA,RT,ML,PW,CB
17 2016/10/20	4.5	0	0	0	0	3	0	0	0	0	0	0	1	15	0	1	0	1	0	0	0	0	0	0	21	PS	HA
18 2016/10/21	8	0	0	1	1	46	3	5	0	0	2	0	17	67	0	1	0	0	1	0	0	0	0	0	144	PS	DCA,RT,ML,GP
19 2016/10/22	7.5	0	0	5	0	18	0	2	0	0	2	0	10	25	0	3	0	1	0	0	0	0	0	0	66	PS	
20 2016/10/23	8.25	0	0	16	1	29	2	6	0	0	1	0	24	35	0	1	0	1	0	0	0	1	0	0	117	PS	DCA,RT
21 2016/10/24	7	0	0	5	1	11	0	5	0	0	6	0	20	15	0	0	0	1	0	0	0	0	0	0	64	PS	
22 2016/10/25	7	0	0	5	1	15	2	1	0	0	0	1	8	28	0	1	0	2	0	2	0	0	0	0	66	PS	DCA,RT,PL, ML
23 2016/10/26	6.5	0	0	2	0	8	1	1	0	0	5	0	6	8	0	0	0	1	1	0	0	0	0	0	33	PS	
24 2016/10/27	8.58	0	0	11	0	5	1	3	0	0	0	0	22	16	0	1	0	0	0	0	0	0	0	0	59	PS,GP	
25 2016/10/28	8.5	1	0	4	2	18	0	2	0	0	0	0	24	14	0	0	0	1	0	0	0	1	0	0	67	PS,GP	
26 2016/10/29	8	0	0	3	1	1	1	3	0	0	0	0	4	19	0	0	0	0	0	0	0	0	0	0	32	PS	RT
27 2016/10/30	5.2	0	0	3	0	7	0	1	0	0	0	0	2	11	0	0	0	0	0	0	0	2	0	0	26	PS,GP	HA
28 2016/10/31	3.75	0	0	5	0	0	0	0	0	0	0	0	3	10	0	0	0	0	0	0	0	0	0	0	18	PS	HA
October	130.95	1	0	90	7	229	13	45	4	0	54	1	203	790	1	12	0	9	3	2	1	11	0	0	1476		
29 2016/11/01	5.25	0	0	2	0	2	0	1	0	0	1	0	2	11	0	0	0	0	0	0	0	0	1	0	20	PS,DCA,GP	HA,RT,ML
30 2016/11/02	5.83	0	0	4	1	2	0	1	0	0	0	0	5	24	0	1	0	0	0	0	0	0	0	0	38	PS	HA
31 2016/11/03	6.5	0	0	3	0	2	0	4	0	0	0	0	6	12	0	0	0	0	0	0	0	0	0	0	27	PS	HA
32 2016/11/04	3.92	0	0	2	1	1	0	0	0	0	0	0	2	6	0	0	0	0	0	0	0	0	0	0	12	DCA,RT	ML,JC
33 2016/11/05	8.5	0	0	9	0	4	0	1	0	0	0	0	4	121	0	0	0	0	0	0	0	0	0	0	139	PS	MT,DCA,RT,PW,ML
34 2016/11/06	8.33	0	0	10	0	1	0	3	0	0	1	0	1	37	0	0	0	0	1	0	0	0	0	0	54	PS,RT	
35 2016/11/07	7.45	0	0	9	0	1	0	5	0	0	0	0	9	42	1	0	1	2	0	0	0	2	0	0	72	PS, RT	PW
36 2016/11/08	7.5	0	0	4	0	0	0	2	0	0	0	0	4	48	0	0	0	0	0	0	0	0	0	0	58	PS, RT	
37 2016/11/09	8.5	0	1	13	0	3	0	4	0	0	0	0	4	37	0	0	0	0	0	2	0	0	0	0	64	PS,RT	DCA,ML,PL
38 2016/11/10	8.16	0	0	64	1	4	0	2	0	0	6	0	24	21	0	0	0	0	0	0	0	0	0	0	122	PS,RT	D&TD
39 2016/11/11	8.16	0	0	14	1	1	0	2	0	0	1	0	15	58	0	0	0	0	0	0	0	0	0	0	92	PS,RT	ML,JC
40 2016/11/12	7.25	0	0	11	0	1	0	0	0	0	0	0	3	18	0	0	0	0	0	0	0	2	0	0	35	PS	
41 2016/11/13	7.83	0	0	1	0	0	0	0	0	0	1	0	5	6	0	0	0	0	0	0	0	0	0	0	13	PS,RT	ML
42 2016/11/14	8.5	0	0	0	0	1	0	0	0	0	0	0	7	2	0	1	0	0	0	0	0	0	0	0	11	PS	
43 2016/11/15	8.67	0	0	10	0	0	0	0	0	0	1	0	14	2	0	1	0	0	0	0	0	0	0	0	28	PS	GP
November	110.35	0	1	156	4	23	0	25	0	0	11	0	105	445	1	3	1	2	1	2	0	4	1	0	785		
TOTALS	282.63	1	3	253	16	521	49	77	7	0	117	3	313	1424	17	22	1	13	5	6	4	15	1	0	2868		
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		
Principal Observers							Assistant observers																				
DCA	Denise Cocciolone-Amatto						C&CL	Dan & Charlene Lee																			
GP	Gordon Petersen						CB	Carol Bruder																			
PS	Peter Sherrington						D&TD	Doug & Teresa Dolmen																			
RT	Raymond Toal						DCA	Denise Cocciolone-Amatto																			
							Dml	David McIntyre																			
							GM	Geoffrey Martens																			
							GP	Gordon Petersen																			
							HA	Hilary Atkinson																			
							JA	Janne Aikens																			
							JC	Judy Cook																			
							KL	Keith Linton																			
							ML	Meryl Liddell																			
							MT	Miles Tindal																			
							PL	Pat Lucas																			
							PW	Patricia Waagner																			
							RT	Raymond Toal																			
							SE	Shirley Enzsol																			

TABLE 11

Steeple, British Columbia fall 2016																										OBSERVERS		
September 20 to November 15 (37 days, 161.8 hours)																										principal	assistants	
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			
1	2016/09/20	4	0	1	0	1	5	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	8	VM		
	2016/09/21	NO OBSERVATION																								0		
	2016/09/22	NO OBSERVATION (WEATHER)																								0		
2	2016/09/23	3	0	0	4	0	1	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	8	VM		
3	2016/09/24	5	0	0	8	1	9	2	0	0	8	0	0	4	0	0	0	0	0	0	0	0	0	0	32	VM	VR	
4	2016/09/25	4	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	VM		
	2016/09/26	NO OBSERVATION																								0		
5	2016/09/27	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	VM		
	2016/09/28	NO OBSERVATION																								0		
6	2016/09/29	3.5	0	0	8	0	5	0	0	0	5	0	0	0	0	1	0	1	0	0	0	0	0	0	20	VM		
7	2016/09/30	4	0	0	5	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8	VM		
	September	26.5	0	1	27	2	22	2	0	0	0	15	0	0	1	0	1	0	1	0	0	0	0	0	81			
	2016/10/01	NO OBSERVATION (WEATHER)																								0		
8	2016/10/02	5	0	0	21	0	2	0	0	0	1	0	0	4	0	0	0	0	0	0	0	0	0	0	28	VM		
	2016/10/03	NO OBSERVATION																								0		
9	2016/10/04	3.5	1	3	15	0	3	0	0	0	3	0	0	7	0	1	0	0	0	0	0	0	0	0	33	VM		
	2016/10/05	NO OBSERVATION																								0		
10	2016/10/06	3.5	0	1	33	0	5	0	0	0	7	0	0	30	0	0	0	0	0	0	0	0	0	0	76	VM		
	2016/10/07	NO OBSERVATION (WEATHER)																								0		
	2016/10/08	NO OBSERVATION (WEATHER)																								0		
11	2016/10/09	6.5	0	0	22	0	18	0	0	0	4	0	0	3	2	0	0	1	0	0	0	0	0	0	50	VM	VR	
	2016/10/10	NO OBSERVATION																								0		
12	2016/10/11	6.5	0	0	21	3	17	0	3	0	3	0	4	33	1	0	0	0	0	0	0	0	0	0	85	VM		
13	2016/10/12	3.5	0	0	0	0	0	0	0	0	2	0	0	12	0	0	0	0	0	0	0	0	0	0	14	VM		
	2016/10/13	NO OBSERVATION (WEATHER)																								0		
14	2016/10/14	5.5	0	0	2	0	1	0	0	0	0	0	0	1	2	0	0	0	1	0	0	0	0	0	7	VM		
15	2016/10/15	5.5	0	0	4	0	6	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	20	VM		
16	2016/10/16	6	0	0	2	0	0	0	0	0	0	0	0	11	1	0	0	0	0	0	0	0	0	0	14	VM	GZ	
	2016/10/17	NO OBSERVATION																								0		
17	2016/10/18	6	0	0	8	0	19	0	3	0	3	0	1	36	0	0	0	0	0	0	0	0	0	0	70	VM		
18	2016/10/19	3.5	0	0	2	1	0	0	0	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	7	VM		
	2016/10/20	NO OBSERVATION (WEATHER)																								0		
	2016/10/21	NO OBSERVATION (WEATHER)																								0		
19	2016/10/22	5	0	0	5	0	3	0	0	0	3	0	1	2	0	0	0	0	0	0	0	0	0	0	14	VM		
20	2016/10/23	6	0	1	10	0	5	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	22	VM		
21	2016/10/24	3.25	0	0	0	1	1	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	6	VM		
22	2016/10/25	5	0	0	2	0	0	0	2	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	14	VM		
	2016/10/26	NO OBSERVATION (WEATHER)																								0		
	2016/10/27	NO OBSERVATION (WEATHER)																								0		
23	2016/10/28	5.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	VM		
24	2016/10/29	5	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	VM	GZ	
25	2016/10/30	2.5	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3	VM		
	2016/10/31	NO OBSERVATION																								0		
	October	87.5	1	5	147	5	80	0	8	0	0	29	0	10	171	6	1	0	1	1	0	0	0	0	465			
26	2016/11/01	8	0	1	27	0	1	0	1	0	2	0	0	7	0	0	0	0	0	0	0	0	0	0	39	VM		
27	2016/11/02	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	VM		
28	2016/11/03	2.5	0	0	2	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	5	VM		
29	2016/11/04	5	0	0	10	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	13	VM		
30	2016/11/05	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	VM	VR	
31	2016/11/06	4.25	0	0	6	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	9	VM		
32	2016/11/07	1.75	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3	VM		
33	2016/11/08	5.25	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	VM		
34	2016/11/09	1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	VM		
35	2016/11/10	2.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	VM		
	2016/11/11	NO OBSERVATION (WEATHER)																								0		
36	2016/11/12	4.5	0	0	1	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	8	VM		
37	2016/11/13	5.5	0	0	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4	VM		
	2016/11/14	NO OBSERVATION (WEATHER)																								0		
	2016/11/15	NO OBSERVATION (WEATHER)																								0		
	November	47.75	0	1	48	1	1	0	1	0	0	5	0	1	25	0	0	0	0	0	0	0	0	0	83			
	TOTALS	161.75	1	7	222	8	103	2	9	0	0	49	0	11	206	6	2	0	2	1	0	0	0	0	629			
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			
Principal Observers						Assistant observers																						
VM	Vance Mattson					GZ	Gaby Zezulka																					
						VR	Virginia Rasch																					

TABLE 12										
STEEPLES, FALL 2016										
SUMMARY WEATHER										
Day #			RIDGE WIND		CLOUD		PRECIPITATION & NOTES	RIDGES	#	migrant raptors
			TEMP	Direction	Velocity	%				
1	Sep	20	20	?	C-L	30	Cu	sunny	clear	8
	Sep	21	NO OBSERVATION							no
	Sep	22	NO OBSERVATION (Weather)					mostly overcast, period of rain		no
2	Sep	23	16	S-SW	M	40-100	Cu,As	partially sunny	clear	8
3	Sep	24	18	?	C-L	60-40	Cu	sunny	clear	32
4	Sep	25	15	?	C-L	100	As,Cu	cloudy	clear	3
	Sep	26	NO OBSERVATION							no
5	Sep	27	25	?	C-L	40-60	Cu	sunny	clear	2
	Sep	28	NO OBSERVATION							no
6	Sep	29	17	SW	M	90	As,Cu	sunny breaks; light rain at 1515	clear	20
7	Sep	30	19	SW	L-M	60-90	Cu,Ci	sunny periods	clear	8
	Oct	1	NO OBSERVATION							no
8	Oct	2	16	SE-C	M-L	30	Cu	sunny	clear	28
	Oct	3	NO OBSERVATION							no
9	Oct	4	14	?	C-L	30-60	Cu,Ac,Ci	mainly sunny	clear	33
	Oct	5	NO OBSERVATION (Weather)						mostly obscured	no
10	Oct	6	11	S	M	40-100	Cu,As	rain at 1645	clear 1500-1645	76
	Oct	7	NO OBSERVATION (Weather)			100	St	rain and overcast	obscured	no
	Oct	8	NO OBSERVATION (Weather)			100	St	rain and overcast	obscured	no
11	Oct	9	9-11	N	L	20-100	Cu,Ci	mainly sunny	clear after 1230	50
	Oct	10	NO OBSERVATION (Weather)							no
12	Oct	11	2-7	NE	L	60-100	Cu,As,Ac	sunny periods	clear	85
13	Oct	12	8	S-SE	M	20-5	Cu	sunny	clear	14
	Oct	13	NO OBSERVATION (Weather)					rain and overcast	obscured	no
14	Oct	14	12	S	S	80-100	As,Cu	cloudy; rain 1515-1615	clear	7
15	Oct	15	10	S-SW	S-M	90-100	As,Cu	cloudy	clear	20
16	Oct	16	10	S-SW	S	70-90	As,Cu	cloudy: periods of light rain	clear	14
	Oct	17	NO OBSERVATION (Weather)			100	St	rain and overcast	obscured	no
17	Oct	18	8	SW	M-L	90-60	Cu,Ac,As	cloudy	clear	70
18	Oct	19	11	SW	M-S	70	Cu,Ci	cloudy	clear	7
	Oct	20	NO OBSERVATION (Weather)			100	St	rain and overcast	obscured	no
	Oct	21	NO OBSERVATION (Weather)			100	St	rain and overcast	obscured	no
19	Oct	22	6	W	M	40-10	Cu,Ci	cloud lifting at 1330 then sunny	clear	14
20	Oct	23	1-7	SW	M-L	20-70	Ac	fog to 1200	clear after 1200	22
21	Oct	24	7	?	L	20-100	thin As,Ci	sunny/hazy sun	clear	6
22	Oct	25	8	S-SW	S	30-60	As,Ci,Cu	mainly sunny	clear after 1300	14
	Oct	26	NO OBSERVATION			100	St	rain and overcast	obscured	no
	Oct	27	NO OBSERVATION			100	St	rain and overcast	obscured	no
23	Oct	28	10	S	L	100	Cu,As,Ac	mainly low cloud on ridges	clear for 1.25 hrs	0
24	Oct	29	10	S	L	80-100	St,Cu,Ac	cloudy	obscured to 1815	2
25	Oct	30	8	?	C-L	60-100	As,Cu	mainly low cloud on ridges	clear 1515-1745	3
	Oct	31	NO OBSERVATION			100	St	rain and overcast	obscured	no
26	Nov	1	8	S-SW	S	30-70	As,Cu	sunny periods	clear	39
27	Nov	2	10	SW	S	100	As,Cu	cloudy	high peaks obsc.	0
28	Nov	3	15	SW	S	5-20%	Cu,Ci	sunny	clear	5
29	Nov	4	8-11	SW	L	0-50	Cu,Ci	sunny	clear	13
30	Nov	5	8-13	?	C-L	20-50	Cu,Ac,As	sunny	clear	0
31	Nov	6	8-11	SW	M	20-50	Cu	rain to 1300, then sunny	clear	9
32	Nov	7	7	?	C-L	100	As	cloudy	clear	3
33	Nov	8	13	?	C-L	0		sunny	clear	2
34	Nov	9	15	SW-SE	L	30-40	Cu, lent	(South Lakit site)	clear	0
35	Nov	10	13	?	C-L	5-30	Ac,Ci,lent	(Horseshoe Lake site)	clear	0
	Nov	11	NO OBSERVATION (Weather)			100	St	rain and fog	obscured	no
36	Nov	12	9	SW	S	80-100	dark As,Cu	brief rain showers	clear	8
37	Nov	13	7	SW	S	70-100	Ac,Cu,As	light rain after 1530	obsc. after 1600	4
	Nov	14	NO OBSERVATION (Weather)			100	St	low cloud	obscured	0
	Nov	15	NO OBSERVATION (Weather)			100	St	snow	obscured	0
								TOTAL		629

TABLE 13																											
YEARLY SUMMARY FALL TOTALS, STEEPLES 2009-2016																											
	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	123.25	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	161.75	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
TOTAL	235	858	4	16	1142	24	254	8	29	0	0	139	0	46	975	13	3	0	3	1	0	4	6	0	0	2667	
Av 09-15	28.285	99	714285	714285	285714	714285	142857	428571	142857	0	0	714285	0	5	35714285	1	571428	0	571428	0	0	285714	428571	0	0	291.1	3.03
16 cf Av	30.808	63	333333	444444	304347	250	334437	333333	215			111111		120	16254876	500	1300		1300			-100	-100			116.0	28.36

TABLE 14																											
Comparison of the three RMERF sites, fall 2016																											
	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	56	577.05	0	5	213	9	133	11	32	5	1	27	1	24	2973	4	8	0	10	2	13	9	11	3	5	3499	6.01
Vicki Ridge	43	282.63	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
Steeple	27	161.75	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
TOTALS	70	1021.4	2	15	688	33	757	62	118	12	1	193	4	348	4603	27	32	1	25	8	19	13	26	4	5	6996	