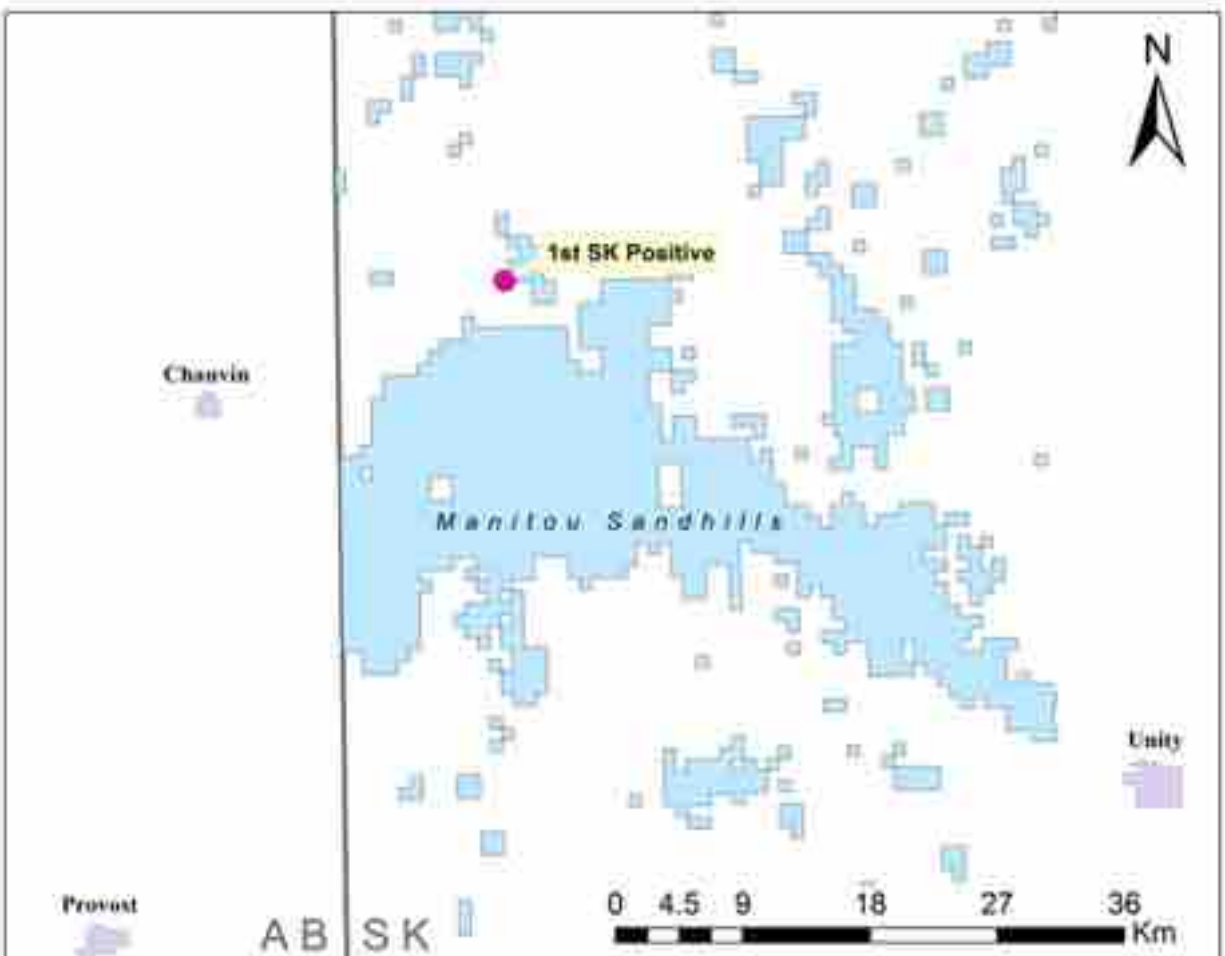


APPENDICES



Appendix I. Location of the first CWD positive deer detected in the wild within the province of Saskatchewan. This deer was a mule deer male sampled in 2000 and located approximately 11.8 kilometers from the Alberta-Saskatchewan border near the Manitou sands hills. The location of this initial positive was provided by the Saskatchewan Ministry of Environment.

Appendix II. Land cover classification descriptions.

- **Cultivated/Cropland:** Annually seeded, cultivated fields containing crops such as canola, wheat, etc. Includes most summer fallow fields.
 - **Forage/Moist Grassland:** Mixed perennial forage and moist grassland. Primarily for hay or silage production, but some pasture. Dominated by alfalfa, but also includes some Bromus and Agropyron (C3 community species).
 - **Grassland:** Perennial grasses and herbaceous species. Includes grazing pastures, native range, abandoned farmsteads and other non-cultivated uses.
 - Moist/C3 – “cool-season” community species (C3 photosynthetic pathway), e.g. Poa (bluegrass), Bromus, Festuca (fescue).
 - Dry/C4 – “warm-season” community species (C4 photosynthetic pathway), e.g. Stipa, Artimesia, Koeleria, Bouteloua.
 - **Shrubs:** Primarily perennial woody shrub cover
 - Tall – woody shrub cover >1 m.
 - *Eleagnus* – grassland/rangeland dominated by *Eleagnus* spp. (>50%).
 - *Upland Mix* – Deciduous shrubs (*Prunus*, *Amelanchier*) mixed with young deciduous trees (*Aspen*).
 - Low – grassland/rangeland dominated by low growth shrubs (>50%, <1 m) such as *Symphoricarpos* and *Rosa* spp.
 - **Trees:**
 - Deciduous – mature deciduous forest dominated by *Aspen* (*Populus tremuloides*).
 - Coniferous/Deciduous Mix – mature mixed coniferous and deciduous forest.
 - **Wetland:** Semi-permanent or permanent wetland vegetation.
 - Grass – dominated by herbaceous grasses and forbs, e.g. *Carex* spp.
 - Shrub – dominated by shrubs (mainly *Salix* spp.), with few young deciduous trees.
 - **Water:** Permanent water bodies of lakes, rivers and ponds.
 - **Other:** Non-vegetated, non-agricultural land use, associated with human activity.
 - Roads – Major thoroughfares (freeways, expressways/highways, arterial).
 - Urban – cities, towns and villages.
 - **Cloud:** Areas that are obscured by significant cloud, haze, or shadow cover.
 - **Bare Soil:** Bare, or almost bare, ground with no significant vegetation growth. Includes alkaline areas surrounding water bodies, as well as some unused agricultural fields (non-vegetated).
 - **Unknown:** Unknown or unclassified areas.
 - **Note:** As of October 17, 2008, there are a number of unknown areas that could be further refined. This included May Unknown areas (areas thought to be disturbed by base activity making it hard to classify, map code 25), May cloud areas (map code 26), Aug cloud areas (map code 27), Sept cloud areas (map code 28), and Open Unclassified areas (could not be distinguished finer than as an open area of grassland, wetland, or forage, map code 29). As a final product were lumped as unclassified; however, it may be possible to refine these categories (e.g. May Unknown areas can be classified using Aug and Sept images).
-

Appendix III. Coefficients for models relating basal diameter to biomass of twig current annual growth and leaves for various species of shrubs that occur in the Border Deer Study area. Models were either power (P) or linear (L) functions of the form $y = ax^b$ or $y = ax - b$, respectively, where y is biomass (g) and x is basal diameter (mm).

Species	Leaves					Twig CAG				
	model	a	b	n	r ²	model	a	b	n	r ²
<i>Rosa</i> spp.	P	0.1428	1.5637	30	0.35	P	0.0251	2.1116	30	0.51
<i>Elaeagnus</i> spp.	L	0.8319	4.4846	12	0.63	L	0.7272	4.0386	12	0.72
<i>Prunus</i> spp.	P	0.2255	1.3107	29	0.19	P	0.0616	1.5809	29	0.19
<i>Ribes</i> spp.	P	0.0008	3.4979	6	0.80	L	0.1189	0.2583	6	0.09
<i>Symphoricarpos albus</i>	P	0.0883	1.8017	14	0.37	P	0.0080	2.6000	14	0.40
<i>Amelanchier alnifolia</i>	L	0.5702	1.3659	30	0.44	P	0.6827	0.5672	30	0.07
<i>Salix</i> spp.	P	0.0504	2.0397	30	0.71	P	0.0020	2.8740	30	0.66
<i>Populus tremuloides</i>	P	0.0775	1.6836	29	0.59	P	0.0014	2.8546	29	0.77
<i>Rubus</i> spp.	P	0.4987	1.1490	7	0.75	L	0.1313	0.2898	7	0.58
<i>Cornus</i> spp.	P	0.0015	3.5359	8	0.83	P	0.0001	4.2869	8	0.75
<i>Crataegus</i> spp.	P	0.0103	2.9773	5	0.35	L	2.0583	9.8935	5	0.40
<i>Acer negundo</i>	-	-	-	-	-	-	-	-	-	-
<i>Spirea</i>	-	-	-	-	-	-	-	-	-	-
Unknown	-	-	-	-	-	-	-	-	-	-

Appendix IV. Summary of data for all deer captured during the study, 2006-2010. Dates are indicated by: year – month – day (YY-MM-DD). The easting and northing coordinates correspond to the capture site and relocation is the number of relocations obtained for each deer.

Capture Date	Deer ID	Ear Tag	Collar Freq.	Type	Sp ¹	S ²	A ³	Easting	Northing	Last Tracked	Fate ⁴	Cause	Relocations ^{5,6}
06-02-01	106001	N/A	N/A	N/A	W	F	F	565922	5823156	N/A	Un	Fawns not collared	N/A
06-02-02	106002	N/A	N/A	N/A	W	M	F	566810	5824597	N/A	Un	Fawns not collared	N/A
06-02-03	106003	N/A	N/A	N/A	W	M	Y	566810	5824597	N/A	Un	Not collared	N/A
06-02-05	106004	N/A	N/A	N/A	W	M	F	566904	5823742	N/A	Un	Fawns not collared	N/A
06-02-05	106005	N/A	N/A	N/A	W	F	Y	565922	5823156	N/A	Un	Not collared	N/A
06-02-06	106006	N/A	150.490	VHF	W	F	A	564862	5826475	07-11-28	D	Hunter	67
06-02-14	106007	979	N/A	N/A	W	M	F	566810	5824597	N/A	Un	Fawns not collared	N/A
06-02-14	106008	923	150.640	VHF	W	F	Y	565922	5823156	07-10-23	D	Highway	60
06-02-14	106009	N/A	N/A	N/A	W	M	A	566943	5823857	N/A	Un	Not collared	N/A
06-02-18	106010	989	N/A	N/A	W	F	F	565922	5823156	N/A	Un	Fawns not collared	N/A
06-02-18	106011	933	150.569	VHF	W	F	A	566096	5826227	09-11-29	AI		111
06-02-21	106012	924	150.660	VHF	W	F	Y	566904	5823742	09-12-02	AI		119
06-03-04	106013	N/A	N/A	N/A	M	M	A	556612	5826626	N/A	Un	Not collared	N/A
06-03-06	106014	994	N/A	N/A	W	M	A	557393	5825127	N/A	Un	Not collared	N/A
06-03-07	106015	922	N/A	N/A	W	F	F	556169	5826047	N/A	Un	Fawns not collared	N/A
06-03-09	106016	929	N/A	N/A	M	M	F	556195	5826634	N/A	Un	Fawns not collared	N/A
06-03-14	106017	947	150.579	VHF	M	F	A	556195	5826634	06-11-09	D	Hunter	25
06-03-14	106018	974	150.630	VHF	M	F	A	554536	5822981	06-11-30	D	Hunter	28
06-03-14	106019	945	150.680	VHF	M	F	A	559330	5827492	06-11-24	D	Hunter	27
06-03-15	106020	N/A	N/A	N/A	M	M	Y	556195	5826634	N/A	Un	Not collared	N/A
06-03-18	106021	905	150.500	VHF	M	F	A	559391	5827391	09-12-18	AI		114
06-03-18	106022	919	N/A	N/A	M	M	F	559391	5827391	N/A	Un	Fawns not collared	N/A
06-03-18	106023	980	150.649	VHF	M	M	Y	559391	5827391	06-04-06	D	Capture	7
06-03-19	106024	964	N/A	N/A	W	M	F	556169	5826047	07-11-08	D	Hunter	N/A
06-03-20	106025	902	N/A	N/A	M	M	A	556169	5826047	N/A	Un	To sick (ticks)	N/A
06-03-26	106028	N/A	N/A	N/A	W	F	Y	555190	5822358	N/A	Un	Escaped from Trap	N/A
06-11-16	107030	906	150.070	VHF	W	F	Y	565513	5825629	09-01-05	D	Unknown	78
06-11-17	107031	903	150.210	VHF	W	F	A	562999	5825062	09-12-02	AI		91
06-11-23	107032	904	150.101	VHF	W	F	A	566757	5826906	07-01-14	D	Highway	9
06-11-23	107033	948	150.079	VHF	W	F	A	564858	5826473	08-10-12	D	Hunter	64
06-11-26	107034	950	N/A	N/A	W	F	F	566759	5826100	N/A	Un	Fawns not collared	N/A
06-11-30	107035	908	N/A	N/A	W	F	F	565513	5825629	N/A	Un	Fawns not collared	N/A
06-12-07	107036	909	150.062	VHF	W	F	A	565905	5823222	09-12-02	AI		90
06-12-10	107037	959	149.781	VHF	M	M	A	565918	5822639	07-02-19	D	Disease	8
06-12-10	107039	917	150.769	VHF	M	M	A	553584	5826030	07-11-01	D*	Hunter	23
06-12-10	107048	263	149.050	GPS	M	F	A	553788	5822936	07-11-12	LC	GPS Drop Off	3520*
06-12-10	107050	946	149.660	VHF	W	F	A	554805	5823930	09-12-18	AI		87
06-12-10	107052	960	149.640	VHF	W	F	A	553712	5821619	09-12-18	AI		88
06-12-10	107054	956	149.650	VHF	W	F	A	555562	5827925	08-12-17	D	Unknown	69
06-12-10	107056	982	149.620	VHF	M	F	A	565543	5827047	08-12-03	D	Unknown	66
06-12-10	107058	955	149.759	VHF	M	F	Y	556817	5823879	07-11-11	D	Hunter	26
06-12-10	107060	976	149.631	VHF	W	F	A	562366	5822852	08-11-12	D	Hunter	63
06-12-10	107062	934	150.290	VHF	W	M	A	556448	5823485	08-09-16	LC	Expandable Broke	61
06-12-10	107064	925	150.271	VHF	W	M	A	555891	5822792	07-11-11	LC	Expandable Broke	30
06-12-10	107070	987	149.499	GPS	W	F	A	568978	5825277	07-11-25	LC	GPS Drop Off	5064*
06-12-10	107072	257	149.799	GPS	W	F	A	553919	5827424	07-11-25	D*	Culled	4145*
06-12-09	107087	954	150.250	VHF	W	F	A	566918	5824527	09-04-06	D	Unknown	76
06-12-11	107088	255	N/A	N/A	W	M	F	566871	5824564	N/A	Un	Fawns not collared	N/A
06-12-13	107089	214	N/A	N/A	W	F	F	566871	5824564	N/A	Un	Fawns not collared	N/A
06-12-18	107090	289	150.111	VHF	W	F	Y	566871	5824564	07-03-09	D	Highway	8
07-02-18	107126	235	149.000	GPS	W	F	A	553554	5826697	08-02-03	LC	GPS Drop Off	5593*
07-02-18	107127	251	149.070	GPS	M	F	A	572488	5825513	07-11-28	LC	GPS Drop Off	3295*

North Border Deer Study

07-02-18	107128	212	151.238	GPS	M	M	A	554984	5823097	07-06-07	LC	Expandable Broke	2590*
07-02-18	107129	221	151.310	GPS	M	M	A	569934	5821582	07-11-09	D	Hunter	20
07-02-18	107130	260	151.189	GPS	W	M	A	553554	5826716	07-10-18	LC	GPS Drop Off	5436*

Appendix IV Continued

Capture Date	Deer ID	Ear Tag	Collar Freq.	Type	Sp ¹	S ²	A ³	Easting	Northing	Last Tracked	Fate ⁴	Cause	Relocations ^{5,6}
07-02-18	107131	275	151.278	GPS	W	M	A	553200	5827082	07-08-16	Un	Not Heard	9
07-02-22	107152	961	N/A	N/A	W	M	A	557618	5826457	07-03-18	D	Culled	N/A
07-02-23	107153	237	149.191	VHF	W	F	A	554936	5822501	08-10-29	D	Unknown	50
07-02-25	107154	218	N/A	N/A	W	M	F	554936	5822501	N/A	Un	Fawns not collared	N/A
07-02-26	107155	211	N/A	N/A	W	M	F	554936	5822501	N/A	Un	Fawns not collared	N/A
07-02-26	107156	266	151.659	VHF	M	M	Y	556169	5826035	07-07-29	D	Unknown	13
07-02-27	107157	265	149.410	VHF	M	F	A	556169	5826035	07-03-20	D	Culled	3
07-02-27	107158	201	149.470	VHF	W	F	Y	554936	5822501	09-12-18	AI		80
07-02-27	107159	969	149.310	VHF	W	F	A	562508	5823452	09-12-02	AI		77
07-02-28	107160	297	149.419	VHF	W	F	Y	555583	5822527	07-12-18	D	Highway	27
07-02-28	107161	215	149.480	VHF	W	F	A	554936	5822501	09-12-18	AI		79
07-03-02	107162	231	N/A	N/A	W	F	F	555583	5822527	N/A	Un	Fawns not collared	N/A
07-03-02	107163	230	149.329	VHF	M	F	A	556169	5826035	08-03-03	D	Culled	33
07-03-03	107164	970	149.159	VHF	W	F	A	557732	5825243	08-02-05	D	Culled	31
07-03-04	107165	984	149.120	VHF	W	F	A	554456	5827562	08-03-06	D	Unknown	31
07-03-05	107166	205	150.759	VHF	W	F	A	557750	5825965	09-12-18	AI		79
07-03-05	107167	242	149.320	VHF	W	F	Y	556168	5824585	08-03-20	D	Culled	2
07-03-06	107168	202	N/A	N/A	W	M	F	556168	5824585	07-03-15	D	Culled	N/A
07-03-07	107169	233	149.990	VHF	W	F	A	557618	5826457	09-12-18	AI		76
07-03-07	107170	968	N/A	N/A	W	F	F	557750	5825965	N/A	Un	Fawns not collared	N/A
07-03-08	107171	223	149.339	VHF	W	F	Y	555583	5822587	09-01-10	D	Coyote	61
07-03-08	107172	209	150.040	VHF	W	F	A	554936	5822501	09-10-07	D	Natural	70
07-11-20	108185	356	151.500	VHF	W	M	A	566556	5826320	08-04-28	LC	Collar fell off	16
07-11-20	108186	351	150.889	VHF	W	M	A	566930	5823865	08-11-28	LC	Expandable Broke	4
07-11-21	108187	357	149.491	VHF	W	M	A	566556	5826320	08-02-02	LC	Unknown	10
07-11-22	108188	352	149.529	VHF	W	M	A	565905	5823222	08-12-18	D	Coyote	4
07-11-24	108189	326	150.910	VHF	W	F	A	565905	5823222	09-12-18	AI		56
07-12-07	108190	327	150.511	VHF	W	M	A	564858	5826473	07-12-17	LC	Unknown	3
08-03-26	108212	361	149.781	VHF	W	M	A	560728	5827658	08-11-15	LC	Expandable Broke	22
08-02-08	108214	363	150.649	VHF	M	F	A	554833	5823466	09-11-25	AI		42
08-01-23	108217	334	149.110	GPS	W	F	A	559846	5827419	09-01-08	LC	GPS Drop Off	2954*
08-01-23	108221	338	149.448	GPS	M	F	A	561953	5825543	09-01-11	LC	GPS Drop Off	34
08-01-23	108224	341	149.030	GPS	W	F	Y	554904	5827760	09-01-18	LC	GPS Drop Off	4506*
08-03-26	108242	306	149.569	VHF	M	M	A	562831	5827005	08-11-05	LC	Expandable Broke	20
08-02-08	108251	388	151.789	GPS	W	M	A	554897	5822800	08-03-07	LC	Collar fell off	3
08-02-08	108257	387	151.849	GPS	M	M	A	554889	5823467	08-11-29	LC	Expandable Broke	3837*
08-03-19	108267	398	153.650	GPS	W	F	A	556281	5823479	09-04-01	LC	GPS Drop Off	1891*
08-03-26	108269	320	153.670	GPS	W	F	A	559840	5825821	09-04-06	LC	GPS Drop Off	1848*
08-03-26	108270	302	153.710	GPS	W	F	A	558209	5826185	09-04-01	LC	GPS Drop Off	1986*
08-03-26	108274	392	153.770	GPS	M	F	A	558974	5826481	09-04-06	LC	GPS Drop Off	28
08-03-26	108275	317	151.789	GPS	W	M	A	566354	5822623	08-10-15	LC	Expandable Broke	21
08-11-15	109277	380	151.930	VHF	W	F	A	566554	5826301	09-12-02	AI		26
08-11-16	109278	399	N/A	N/A	W	M	Y	566554	5826301	N/A	Un	Collar fell off	N/A
09-02-08	109306	447	151.710	GPS	M	M	A	556405	5826936	09-12-18	LC	Expandable Broke	2229*
09-02-08	109307	448	151.849	GPS	W	M	A	555923	5823417	09-02-05	LC	Expandable Broke	2813*
09-02-08	109308	449	149.070	GPS	M	F	A	556151	5826677	09-02-27	LC	Collar Removed	2925*
09-02-08	109309	450	149.100	GPS	W	F	A	556748	5825042	09-02-27	LC	Collar Removed	2912*
09-02-08	109310	406	149.090	GPS	W	F	A	555297	5822979	09-02-27	LC	Collar Removed	2906*
09-03-03	109326	499	150.079	VHF	W	F	A	557737	5825237	09-12-18	D	Unknown	16
09-03-16	109327	472	149.569	VHF	W	M	A	562512	5823448	09-11-29	AI		14
09-03-17	109328	498	151.830	VHF	W	F	Y	562807	5826594	09-08-17	D	Unknown	10
06-03-21	306026	975	N/A	N/A	W	F	F	561103	5851696	N/A	Un	Fawns not collared	N/A
06-03-24	306027	901	N/A	N/A	M	M	A	561067	5852485	N/A	Un	Not collared	N/A
06-03-31	306029	944	N/A	N/A	M	M	F	560881	5852515	N/A	Un	Fawns not collared	N/A

North Border Deer Study

06-12-11	307038	259	149.596	GPS	W	F	A	559754	5848741	07-11-27	LC	GPS Drop Off	3861*
06-12-11	307040	991	149.398	GPS	M	F	A	559242	5850125	07-11-26	LC	GPS Drop Off	3942*

Appendix IV Continued

Capture Date	Deer ID	Ear Tag	Collar Freq.	Type	Sp ¹	S ²	A ³	Easting	Northing	Last Tracked	Fate ⁴	Cause	Relocations ^{5,6}
06-12-11	307042	981	149.059	GPS	W	F	A	559218	5853073	07-12-02	LC	GPS Drop Off	3490*
06-12-11	307049	914	150.881	VHF	W	M	A	557444	5854887	09-11-05	D	Hunter	86
06-12-11	307051	915	149.809	VHF	M	F	A	558476	5850338	07-11-04	D	Hunter	29
06-12-11	307053	910	149.749	VHF	W	F	A	556530	5848535	07-11-03	D	Hunter	29
06-12-11	307055	942	149.729	VHF	W	F	A	556586	5846644	09-04-10	D	Natural	76
06-12-11	307057	913	149.820	VHF	W	F	A	557521	5847416	09-12-01	AI		80
06-12-11	307059	912	150.811	VHF	M	M	A	558173	5854914	07-11-27	LC	Expandable Broke	32
06-12-11	307061	943	150.820	VHF	W	M	A	556946	5849448	07-08-21	LC	Expandable Broke	22
06-12-11	307063	911	149.890	VHF	M	F	A	556598	5851354	09-12-01	AI		89
06-12-11	307075	978	149.739	VHF	M	F	A	556910	5850672	09-11-05	AI		89
06-12-11	307077	930	149.789	VHF	M	M	A	556885	5853712	07-09-26	LC	Expandable Broke	25
07-02-07	307109	253	149.210	VHF	M	F	A	559964	5851964	09-06-11	D	Natural	72
07-02-07	307110	276	N/A	N/A	M	F	F	559964	5851964	07-02-07	D	Capture	N/A
07-02-08	307111	967	151.760	VHF	M	M	A	560758	5851951	07-11-27	LC	Expandable Broke	24
07-02-10	307112	240	N/A	N/A	M	M	F	559964	5851964	N/A	Un	Fawns not collared	N/A
07-02-10	307113	219	149.260	VHF	M	F	A	560230	5851850	08-05-05	D	Unknown	43
07-02-11	307115	298	151.699	VHF	M	M	A	558878	5851879	09-11-23	D	Hunter	80
07-02-11	307116	250	149.140	VHF	M	F	A	560758	5851951	08-12-18	D	Hunter	57
07-02-11	307117	270	149.969	VHF	W	F	A	562111	5853605	09-12-01	AI		70
07-02-12	307118	966	N/A	N/A	M	F	F	558878	5851879	N/A	Un	Fawns not collared	N/A
07-02-12	307119	238	149.170	VHF	M	F	Y	560758	5851951	07-04-28	D	Unknown	7
07-02-19	307132	931	151.102	GPS	M	M	A	558350	5823266	07-09-10	LC	Expandable Broke	1423*
07-02-19	307133	264	151.331	GPS	M	M	A	559419	5847661	07-03-27	D	Culled	3
07-02-19	307134	295	151.341	GPS	W	M	A	559419	5847661	07-10-19	Un	Not Heard	18
07-02-19	307135	973	151.400	GPS	W	M	A	559419	5847661	07-06-19	LC	Expandable Broke	1123*
07-02-19	307136	239	149.021	GPS	M	F	A	559449	5850684	08-02-01	LC	GPS Drop Off	4533*
07-02-19	307137	283	149.080	GPS	W	F	A	559419	5847661	07-12-09	LC	GPS Drop Off	3252*
07-02-21	307150	207	151.959	VHF	M	M	A	560230	5851850	07-09-18	LC	Expandable Broke	17
07-02-22	307151	213	N/A	N/A	M	M	F	558878	5851879	N/A	Un	Fawns not collared	N/A
07-04-02	307175	168	151.331	VHF	M	F	A	559332	5852926	08-02-01	LC	GPS Drop Off	25
07-04-02	307176	166	150.781	VHF	W	F	A	556661	5848889	09-12-01	AI		79
07-04-02	307177	170	150.430	VHF	W	F	A	557123	5848802	09-01-05	D	Unknown	53
07-04-02	307178	172	150.830	VHF	W	F	A	556880	5848409	07-11-08	Un	Not heard	16
08-02-08	308207	365	149.430	VHF	M	M	A	558442	5852192	08-11-23	LC	Expandable Broke	28
08-02-08	308209	358	150.790	VHF	M	M	A	558685	5851602	08-10-20	LC	Expandable Broke	24
08-01-23	308215	332	149.090	GPS	W	F	Y	558654	5849066	09-01-18	LC	GPS Drop Off	3046*
08-01-23	308226	343	149.499	GPS	M	F	A	559939	5847326	09-12-01	AI		5072!
08-01-23	308228	377	149.949	GPS	W	F	A	557257	5849925	09-02-06	LC	GPS Drop Off	5057*
08-02-08	308229	378	149.551	VHF	W	M	A	558644	5850322	08-09-24	LC	Expandable Broke	20
08-02-08	308235	313	149.959	VHF	W	F	Y	558774	5849822	09-12-01	AI		45
08-02-08	308237	309	149.789	VHF	M	F	A	560291	5851677	09-11-24	D	Hunter	43
08-02-08	308238	311	150.630	VHF	W	F	A	557415	5848786	09-11-13	D	Unknown	37
08-02-08	308240	303	149.540	VHF	W	M	A	559057	5849641	08-09-03	LC	Expandable Broke	20
08-02-08	308243	307	149.170	VHF	M	F	A	559967	5851506	09-11-24	D	Natural	46
08-01-26	308244	395	150.450	VHF	M	F	A	559968	5851963	09-12-01	AI		47
08-02-08	308246	305	149.100	GPS	M	F	A	559382	5851610	09-11-01	LC	GPS Drop Off	3105*
08-02-04	308247	353	149.809	GPS	M	F	A	559374	5852008	09-02-03	LC	GPS Drop Off	4378*
08-02-08	308255	386	151.888	GPS	M	M	A	558154	5850872	09-11-01	LC	GPS Drop Off	4516*
08-02-08	308256	390	151.809	GPS	W	M	A	558039	5850166	09-01-18	LC	GPS Drop Off	4080*
08-02-20	308260	347	151.590	VHF	M	F	Y	560845	5851864	08-11-19	D	Hunter	29
08-02-23	308261	323	N/A	N/A	M	M	F	558877	5851882	N/A	Un	Fawns not collared	N/A
08-02-23	308262	391	N/A	N/A	M	F	F	559968	5851963	N/A	Un	Fawns not collared	N/A
08-03-06	308263	397	149.070	GPS	W	F	A	561262	5852005	09-01-29	LC	GPS Drop Off	2854*

North Border Deer Study

08-03-07	308264	400	N/A	N/A	M	M	F	560845	5851864	N/A	Un	Fawns not collared	N/A
08-03-11	308265	396	149.596	GPS	M	F	A	558877	5851882	09-12-01	AI		4494!

Appendix IV Continued

Capture Date	Deer ID	Ear Tag	Collar Freq.	Type	Sp ¹	S ²	A ³	Easting	Northing	Last Tracked	Fate ⁴	Cause	Relocations ^{5,6}
08-03-12	308266	322	149.809	VHF	W	F	Y	560228	5851849	09-12-01	AI		46
09-01-16	309279	360	150.620	VHF	W	F	A	560308	5851772	09-12-01	AI		20
09-02-07	309311	407	151.609	GPS	M	M	A	559400	5853062	09-02-26	D	Natural	2993*
09-02-07	309312	408	149.080	GPS	M	F	A	560046	5853396	09-02-27	LC	Collar Removed	2902*
09-07-02	309313	409	149.448	GPS	M	F	A	560240	5853882	09-11-14	D	Hunter	9* ¹
09-07-02	309314	410	149.059	GPS	M	F	A	559870	5853072	09-02-27	LC	Collar Removed	2979*
09-07-02	309315	411	149.110	GPS	W	F	A	558014	5848883	09-02-27	LC	Collar Removed	2919*
06-12-11	407045	285	149.249	GPS	W	F	A	543912	5862644	07-11-25	LC	GPS Drop Off	4654*
06-12-11	407046	958	149.110	GPS	M	F	A	554826	5860957	07-11-11	LC	GPS Drop Off	3268*
06-12-11	407047	965	149.448	GPS	M	F	A	542698	5863078	07-12-02	LC	GPS Drop Off	3713*
06-12-11	407076	244	149.681	VHF	M	F	A	554918	5861755	08-11-15	D	Hunter	66
06-12-11	407078	300	150.220	VHF	M	M	A	551906	5862501	07-11-05	D	Hunter	19
06-12-11	407079	278	149.690	VHF	W	F	A	543920	5863070	09-02-22	D	Unknown	71
06-12-11	407080	256	150.050	VHF	M	M	A	551168	5862252	06-12-11	Un	Not Heard	1
06-12-11	407081	992	149.769	VHF	M	F	A	547590	5859100	07-07-24	D	Unknown	19
06-12-11	407082	287	150.450	VHF	M	M	A	547629	5859657	07-11-29	D	Hunter	27
06-12-11	407083	277	149.579	VHF	M	F	A	550813	5860839	09-12-09	AI		85
06-12-11	407084	999	149.879	VHF	W	M	A	549960	5860960	07-09-28	Un		23
06-12-11	407085	284	149.720	VHF	M	F	Y	539778	5865148	09-07-23	D	Coyote	77
07-02-18	407138	271	151.062	GPS	M	M	A	552105	5862707	07-10-22	Un	Not Heard	16
07-02-18	407139	232	151.430	GPS	M	M	A	539651	5861532	07-11-12	D	Hunter	3138*
07-02-18	407140	258	151.470	GPS	W	M	A	544413	5863075	07-09-30	Un	Not Heard	11
07-02-18	407141	249	151.299	GPS	W	M	A	544405	5862704	07-07-22	LC	Expandable Broke	1546*
07-02-18	407142	990	149.100	GPS	W	F	A	543823	5862588	08-02-02	LC	GPS Drop Off	3463*
07-02-18	407143	971	149.011	GPS	M	F	A	554081	5863433	07-12-17	LC	GPS Drop Off	5302*
07-02-18	407144	208	149.240	VHF	W	F	A	555404	5841792	09-12-09	AI		81
07-02-18	407145	222	149.229	VHF	W	F	A	555404	5841792	08-02-23	D	Unknown	25
07-02-18	407146	983	149.350	VHF	W	F	A	557166	5846985	09-12-09	AI		75
07-02-18	407147	267	149.149	VHF	M	F	A	540988	5865195	09-12-09	AI		69
07-02-18	407148	972	149.360	VHF	M	F	A	554081	5863433	09-12-09	AI		71
07-02-18	407149	254	150.351	VHF	M	M	A	550483	5861355	07-03-05	LC	Expandable Broke	3
07-03-21	407173	197	150.260	VHF	M	F	A	554009	5864660	09-02-04	D	Coyote	61
07-03-27	407174	200	150.119	VHF	M	F	A	539147	5867507	09-12-09	AI		81
07-04-02	407179	173	149.979	VHF	W	F	A	544102	5862683	09-03-24	D	Unknown	62
07-04-02	407180	167	149.380	VHF	M	F	A	554177	5863898	07-12-02	D	Hunter	23
07-04-02	407181	174	149.370	VHF	W	M	A	551900	5863038	09-11-17	AI		69
07-04-02	407182	169	149.459	VHF	M	M	A	551689	5861757	07-11-11	D	Hunter	17
07-04-02	407183	171	150.369	VHF	M	F	A	548128	5863685	09-12-09	AI		81
07-04-02	407184	175	150.920	VHF	W	F	A	543879	5862644	09-12-09	AI		68
08-03-26	408202	330	150.769	VHF	M	M	A	541987	5862738	08-11-17	D*	Hunter	23
08-02-07	408203	369	151.320	VHF	W	M	A	544582	5861686	09-10-20	LC	Expandable Broke	47
08-02-07	408204	368	150.351	VHF	M	M	A	552774	5863029	09-02-16	LC	Expandable Broke	29
08-02-07	408206	366	151.900	VHF	W	M	A	545505	5862510	08-11-25	D	Hunter	28
08-02-07	408208	364	149.840	VHF	M	M	A	548012	5862887	08-11-19	D	Hunter	29
08-02-07	408210	359	151.740	VHF	W	M	A	545506	5862362	08-10-19	LC	Expandable Broke	23
08-01-23	408213	362	149.050	GPS	M	F	Y	550612	5862952	09-02-06	LC	GPS Drop Off	3096*
08-02-07	408218	335	149.249	GPS	M	F	F	554201	5862362	09-12-09	AI		4897!
08-01-23	408220	337	149.298	GPS	M	F	Y	551070	5862229	09-12-09	AI		5102!
08-02-07	408222	339	150.111	VHF	W	F	A	546484	5862112	08-03-28	D	Unknown	5
08-02-07	408223	340	149.596	GPS	W	F	A	546373	5861999	08-02-12	D	Unknown	1
08-02-07	408230	379	150.190	VHF	M	F	A	548252	5862463	09-12-09	AI		51
08-02-07	408232	381	150.811	VHF	M	F	A	551152	5862734	09-01-17	D	Coyote	31
08-02-07	408233	382	149.459	VHF	M	F	A	550546	5862783	09-12-09	AI		48

North Border Deer Study

08-02-07	408234	383	149.320	VHF	W	F	A	544263	5862239	09-12-09	AI		49
08-02-07	408239	312	149.280	VHF	M	F	F	554572	5861659	08-11-10	D	Hunter	26

Appendix IV Continued

Capture Date	Deer ID	Ear Tag	Collar Freq.	Type	Sp ¹	S ²	A ³	Easting	Northing	Last Tracked	Fate ⁴	Cause	Relocations ^{5,6}
08-02-07	408241	310	150.579	VHF	M	F	A	552672	5863102	09-11-06	D	Hunter	49
08-02-07	408245	308	149.410	VHF	W	F	A	544754	5862485	09-12-09	AI		49
08-02-07	408250	385	149.021	GPS	W	F	A	545911	5862236	09-01-18	LC	GPS Drop Off	4466*
08-02-07	408252	394	151.609	GPS	M	M	A	554337	5864623	09-01-18	LC	GPS Drop Off	4498*
08-02-08	408258	345	151.518	GPS	W	M	A	544629	5862688	08-04-19	LC	Collar fell off	826*
08-03-26	408271	315	153.730	GPS	W	F	F	545842	5862436	09-04-03	LC	GPS Drop Off	1910*
08-03-26	408272	319	153.610	GPS	M	F	F	554095	5863164	09-04-06	LC	GPS Drop Off	345*
08-03-26	408273	318	153.750	GPS	W	F	A	544326	5861486	09-04-06	Un	Not Heard	21
06-12-10	507041	986	150.129	VHF	W	M	A	518826	5822602	07-12-01	LC	Expandable Broke	30
06-12-10	507043	988	149.298	GPS	W	F	A	522112	5815682	07-11-18	LC	GPS Drop Off	4658*
06-12-10	507044	952	149.090	GPS	W	F	Y	526188	5815332	07-11-18	LC	GPS Drop Off	3404*
06-12-10	507065	920	149.710	VHF	M	F	A	521816	5826230	09-04-22	AI		40
06-12-10	507066	228	149.610	VHF	W	F	A	521463	5829361	09-12-06	AI		74
06-12-10	507067	926	150.710	VHF	M	M	A	528014	5834252	08-12-18	LC	Expandable Broke	66
06-12-10	507068	296	149.700	VHF	M	F	A	523663	5829613	09-11-28	AI		72
06-12-10	507069	932	150.190	VHF	M	M	A	528056	5826910	07-11-04	LC	Expandable Broke	28
06-12-10	507071	921	149.840	VHF	M	M	A	523846	5815023	07-01-31	Un	Not Heard	7
06-12-10	507073	927	149.849	VHF	M	M	Y	528056	5826910	07-06-09	Un	Not Heard	18
06-12-10	507074	268	149.949	GPS	W	F	Y	524511	5820236	07-11-25	LC	GPS Drop Off	3624*
06-12-10	507086	916	149.670	VHF	M	F	A	526623	5826828	09-12-06	AI		83
07-01-17	507091	245	151.861	VHF	W	M	A	525145	5816652	08-01-10	D	Unknown	33
07-01-17	507092	236	149.829	VHF	W	F	A	525130	5817326	08-06-22	D	Natural	44
07-01-19	507093	261	150.141	VHF	W	F	A	526135	5815904	07-11-12	D	Hunter	25
07-01-19	507094	229	149.900	VHF	W	F	Y	525145	5816652	09-09-13	D	Hunter	76
07-01-20	507095	907	149.861	VHF	W	F	A	528332	5817370	07-10-03	D	Hunter	21
07-01-20	507096	216	149.940	VHF	W	F	A	525162	5816520	08-12-16	D	Hunter	65
07-01-22	507097	949	149.179	VHF	W	F	Y	526135	5815904	07-12-10	Un	Not Heard	33
07-01-23	507098	234	149.930	VHF	M	F	A	528788	5815936	09-09-28	D	Hunter	76
07-01-23	507099	962	N/A	N/A	W	M	F	525089	5818039	N/A	Un	Fawns not collared	N/A
07-01-25	507100	203	149.920	VHF	M	F	Y	528788	5815936	09-12-17	AI		82
07-01-25	507101	206	N/A	N/A	M	M	F	528788	5815936	N/A	Un	Fawns not collared	N/A
07-01-27	507102	274	149.959	VHF	W	F	A	525130	5817326	07-03-21	D	Coyote	5
07-02-01	507103	290	N/A	N/A	W	M	F	529384	5815836	N/A	Un	Fawns not collared	N/A
07-02-01	507104	993	149.910	VHF	W	F	A	529384	5815836	09-12-07	AI		79
07-02-02	507105	210	N/A	N/A	M	M	F	528788	5815936	N/A	Un	Fawns not collared	N/A
07-02-05	507106	226	151.740	VHF	W	M	A	530033	5816808	07-08-16	LC	Expandable Broke	16
07-02-05	507107	279	149.200	VHF	W	F	A	525162	5816520	09-06-09	D	Unknown	71
07-02-05	507108	262	149.129	VHF	M	F	A	529384	5815836	09-12-17	AI		80
07-02-10	507114	227	149.219	VHF	M	F	A	528788	5815936	07-11-12	Un	Not Heard	25
07-02-18	507120	272	149.040	GPS	M	F	A	527698	5828336	08-01-26	LC	GPS Drop Off	2271*
07-02-18	507121	269	149.030	GPS	M	F	A	521438	5817181	07-04-13	LC	Collar fell off	758*
07-02-18	507122	204	151.359	GPS	M	M	A	526952	5828647	07-05-01	LC	Expandable Broke	1835*
07-02-18	507123	217	151.411	GPS	M	M	A	522259	5820540	07-11-04	D*	Hunter	6138*
07-02-18	507124	273	151.418	GPS	W	M	A	522186	5826862	07-11-24	D	Hunter	5169*
07-02-18	507125	252	151.288	GPS	W	M	A	526621	5816891	07-07-23	LC	Expandable Broke	1545*
08-01-04	508191	328	N/A	N/A	W	M	F	529377	5815826	N/A	Un	Fawns not collared	N/A
08-01-04	508192	350	149.510	VHF	M	F	Y	528787	5815931	09-12-17	AI		50
08-01-04	508193	349	149.520	VHF	W	M	A	528335	5817370	09-12-17	LC	Expandable Broke	53
08-01-04	508194	354	149.270	VHF	W	F	A	526141	5815906	09-12-17	D	Coyote	51
08-01-05	508195	370	150.887	VHF	W	F	A	525089	5818036	09-04-05	D	Unknown	33
08-01-06	508196	373	150.271	VHF	W	F	A	528543	5815631	08-11-22	D	Hunter	25
08-01-07	508197	374	N/A	N/A	W	M	F	525143	5816664	N/A	Un	Fawns not collared	N/A
08-01-07	508198	372	N/A	N/A	W	F	F	525089	5818036	N/A	Un	Fawns not collared	N/A
09-12-02	508199	376	150.790	VHF	W	M	A	525166	5816521	09-12-17	AI		16

North Border Deer Study

08-01-10	508200	325	149.759	VHF	M	F	A	528787	5815931	09-10-20	D	Hunter	46
08-01-13	508201	348	N/A	N/A	W	M	F	525163	5816524	N/A	Un	Fawns not collared	N/A

Appendix IV Continued

Capture Date	Deer ID	Ear Tag	Collar Freq.	Type	Sp ¹	S ²	A ³	Easting	Northing	Last Tracked	Fate ⁴	Cause	Relocations ^{5,6}
08-01-23	508216	333	149.059	GPS	M	F	A	518003	5829650	09-01-16	LC	GPS Drop Off	3107*
08-01-23	508219	336	149.398	GPS	M	F	Y	527479	5827222	09-01-10	LC	GPS Drop Off	4533*
08-01-23	508225	342	149.799	GPS	W	F	Y	518976	5828116	09-01-21	LC	GPS Drop Off	4477*
08-02-08	508227	344	149.080	GPS	M	F	A	526777	5827645	09-01-16	LC	GPS Drop Off	3035*
08-02-08	508253	393	151.578	GPS	M	M	A	526820	5827868	08-07-27	LC	Collar fell off	2204*
08-02-08	508254	389	151.710	GPS	W	M	A	524632	5827634	09-01-21	LC	GPS Drop Off	4407*
08-02-09	508259	0	149.011	GPS	W	F	A	526810	5827645	09-01-10	LC	GPS Drop Off	4502*
08-03-26	508268	314	153.628	GPS	M	F	A	525505	5815010	09-04-14	LC	GPS Drop Off	2072*
08-03-26	508276	0	151.619	VHF	M	F	A	N/A	N/A	09-12-17	AI		44
09-01-31	509280	454	N/A	N/A	W	F	F	529343	5815929	N/A	Un	Fawns not collared	N/A
09-01-31	509281	427	149.769	VHF	W	F	A	528779	5815939	09-12-17	AI		18
09-02-01	509282	401	149.829	VHF	W	F	A	529343	5815929	09-12-17	AI		17
09-02-01	509283	455	N/A	N/A	M	F	F	528779	5815939	N/A	Un	Fawns not collared	N/A
09-02-04	509284	403	150.141	VHF	W	F	A	529343	5815929	09-12-17	AI		18
09-02-04	509285	404	N/A	N/A	W	F	F	529136	5815805	N/A	Un	Fawns not collared	N/A
09-02-08	509316	412	151.518	GPS	M	M	A	526362	5828529	09-02-27	LC	Collar Removed	3066*
09-02-08	509317	413	149.040	GPS	M	F	A	525867	5829470	09-02-27	LC	Collar Removed	2939*
09-02-08	509318	414	149.499	GPS	M	F	A	525957	5829235	09-02-27	LC	Collar Removed	2939*
09-02-08	509319	415	149.298	GPS	M	F	A	525906	5828545	09-02-27	LC	Collar Removed	3011*
09-02-08	509320	416	149.596	GPS	W	F	A	521977	5828379	09-02-27	LC	Collar Removed	3066*
09-02-08	509321	417	149.249	GPS	W	F	A	527299	5819985	09-04-05	D	Natural	5**
09-02-13	509322	456	149.329	VHF	W	F	Y	529136	5815805	09-08-17	D	Unknown	10
09-02-13	509323	452	149.650	VHF	M	F	A	528779	5815939	09-04-19	D	Natural	4
09-02-14	509324	473	N/A	N/A	W	F	Y	525127	5817325	N/A	Un	To small to collar	N/A
09-02-16	509325	471	149.560	VHF	W	M	Y	525127	5817325	09-12-17	AI		16
09-02-09	609286	457	151.809	GPS	M	M	A	541273	5838994	09-11-28	D	Hunter	2463*
09-02-09	609287	429	151.600	VHF	M	M	A	541459	5833463	09-12-23	D	Hunter	15
09-02-09	609288	430	150.129	VHF	M	M	A	541600	5835287	09-09-23	LC	Expandable Broke	16
09-02-09	609289	431	150.730	VHF	M	M	A	544422	5839960	09-10-17	LC	Expandable Broke	16
09-02-09	609290	428	150.290	VHF	M	M	A	541770	5841616	09-11-21	D	Hunter	18
09-02-08	609291	432	150.710	VHF	W	M	A	544878	5838726	09-11-21	D	Hunter	19
09-02-09	609292	433	151.740	VHF	W	M	A	537625	5831282	09-12-19	AI		20
09-02-09	609293	434	151.888	GPS	M	M	A	540834	5842114	09-07-22	AI		6#
09-02-09	609294	435	151.578	GPS	M	M	A	538657	5831981	09-02-27	LC	Collar Removed	3045*
09-02-09	609295	436	149.280	VHF	M	F	A	543621	5833509	09-12-19	AI		18
09-02-09	609296	437	151.760	VHF	M	F	A	538716	5831742	09-11-21	AI		16
09-02-08	609297	438	151.590	VHF	W	F	A	547852	5839199	07-12-19	AI		21
09-02-09	609298	439	151.749	VHF	M	F	A	539156	5831144	09-11-15	D	Hunter	15
09-02-09	609299	440	149.949	GPS	M	F	A	545930	5840007	09-02-27	LC	Collar Removed	3051*
09-02-09	609300	441	149.030	GPS	M	F	A	539749	5841954	09-07-03	D	Broken Back	1143*
09-02-09	609301	442	149.799	GPS	M	F	Y	545871	5839974	09-02-27	LC	Collar Removed	3053*
09-02-09	609302	443	149.011	GPS	M	F	A	539145	5841429	09-02-27	LC	Collar Removed	3033*
09-02-08	609303	444	149.398	GPS	W	F	A	548312	5839636	09-02-27	LC	Collar Removed	3045*
09-02-09	609304	445	149.021	GPS	W	F	A	538078	5838533	09-02-27	LC	Collar Removed	2975*
09-02-09	609305	446	149.050	GPS	W	F	A	537879	5831949	09-02-27	LC	Collar Removed	2929*

¹ M = Mule Deer, W = White-tailed Deer;

² M = Male, F = Female;

³ F = Fawn, Y = Yearling, A = Adult;

⁴ Un = Unknown, D = Dead, AI = Alive, LC = Lost Collar "*" indicates deer that lost their collars prior to being shot;

⁵ As of December 18, 2009;

⁶ "*" indicates results of GPS telemetry; "***" indicates deer with locational data on GPS collars that are still active on deer, "*1" indicates the collar GPS collar failed, Entry followed by # indicates the GPS collar has not been heard and no GPS data exists, locations are all by VHF telemetry.

North Border Deer Study

Appendix VA. Microhistological analyses of 6 samples of winter white-tailed and mule deer feces from 4 study blocks in central east Alberta.

Plants	Ribstone	Ribstone	Ribstone	Ribstone	Ribstone	Ribstone	Metiskow	Metiskow	Metiskow	Metiskow	Metiskow	Metiskow	Dilberry	Dilberry	Dilberry	Dilberry	Dilberry	Dilberry	Mean
	Jan 1	Jan 2	Feb 1	Feb 2	Mar 1	Mar 2	Jan 1	Jan 2	Feb 1	Feb 2	Mar 1	Mar 2	Jan 1	Jan 2	Feb 1	Feb 2	Mar 1	Mar 2	
Alfalfa/Trifolium	11.0	0.4					3.4	1.5		0.6	0.3	0.7	0.3						1.01
Forb	1.5											1.4							0.16
Total Forbs:	12.5	0.4	0.0	0.0	0.0	0.0	3.4	1.5	0.0	0.6	0.3	2.1	0.3	0.0	0.0	0.0	0.0	0.0	1.17
Agropyron spp.	7.3	2.2		2.8	2.4		1.2	1.2	2.6	12.4	7.7	0.7	13.7	10.7	1.6				3.69
Agrostis spp.								2.4											0.13
Bromus spp.	1.5	2.2	2.1				2.5	1.2	0.5			2.0	3.4	3.3	1.1		3.8	7.6	1.73
Calamagrostis									1.1								1.1		0.12
Festuca										1.2		1.4	4.1						0.37
Hordeum											1.9		2.1						0.22
Phleum												2.0	2.8						0.34
Poa spp.				1.1	1.6		5.5	3.5	2.1	4.3	0.6	2.7		1.3					1.26
Grass	1.5	1.5	1.4		0.8	0.6		2.4	1.1	0.6	1.3	2.7	1.4	1.3			1.3	0.6	2.1
Total Grasses:	10.3	5.9	3.5	3.9	4.8	0.6	9.2	10.7	7.4	18.5	11.5	11.5	27.5	16.6	2.7	1.3	5.5	11.1	9.03
Carex spp.	1.5	2.2	1.4	0.0	8.0	0.0	0.6	0.0	3.2	1.2	0.0	0.0	0.0	1.3	0.0	2.6	6.6	5.5	1.89
Acer stem							7.3	1.8		1.9	1.3	3.4	2.1	3.3	3.3	3.2	0.6	0.7	1.61
Amelanchier stem			6.9	5.7		3.5	3.7	3.5	2.6	3.1	5.1	17.7	6.9	6.7	4.3	6.4	13.2	3.4	5.15
Arctostaphylos stem																2.6			0.14
Cornus		2.5				0.8													2.1
Crataegus leaf							1.8	1.2		0.5	1.2								0.26
Crataegus stem									2.4		1.2								0.20
Elaeagnus leaf							9.9				2.6				0.5			1.4	0.80
Elaeagnus hair & stem	16.2	6.5	5.6	9.7	12.0	19.3	7.4	16.0	4.8	9.3	16.0		0.7	2.0	9.2	6.5	2.2	25.5	9.38
Populus spp. stem	1.4	1.4	2.8	4.5		2.3	1.8	4.1	2.1	3.7	5.7	2.0	2.7	2.0	3.8			3.4	2.43
Prunus stem			2.1	8.0	1.6		1.2	1.2	1.1	2.5	1.3	1.3	3.4	20.7	3.3	6.4	8.2	9.7	4.00
Ribes stem						4.7							8.2	2.1		3.2	1.1		1.07
Rosa stem		0.7	1.4	4.0			3.1	4.7	2.1	3.1	4.5	10.2	9.6		4.9	5.8	1.6	3.4	3.28
Rubus spp. leaf				1.1															0.06
Rubus spp. stem		1.4		0.6	1.6		1.2	1.8	1.1	3.1	2.5			2.7		1.3	0.5	10.3	1.56
Salix spp. leaf														2.7		1.9			0.26
Salix spp. stem	8.8	5.8	7.6	5.7	7.2	3.5	6.1	2.4	7.4	4.3	11.5	14.3	11.0	4.0	9.8	6.5	5.5	16.6	7.67
Symphoricarpos leaf	3.7	2.9		2.8			4.3	1.2		1.2				2.7		1.3			1.12
Symphoricarpos stem							0.6										4.4		0.28
Shrub leaf								2.4	0.5			1.4		1.3	1.1			1.1	1.4
Shrub stem		2.2					1.2	1.2			1.3		1.4	1.3		1.3			0.55
Total Shrubs:	30.1	23.4	26.4	42.1	23.2	45.0	39.1	42.7	22.2	34.6	51.8	58.5	39.9	49.4	40.2	46.4	38.4	77.9	40.63
Juniperus	45.6	66.7	68.7	54.0	64.0	54.4	47.7	45.1	66.1	45.1	36.4	27.9	32.3	32.7	56.0	48.4	49.5	5.5	47.01
Moss:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.06
Thorn:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.07
Lichen:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.06
Seed/Nut:	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.08
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.00

North Border Deer Study

Appendix VB. Microhistological analyses of 3 samples of summer white-tailed and mule deer feces from 4 study blocks in central east Alberta.

Plants	Ribstone	Ribstone	Ribstone	Metiskow	Metiskow	Metiskow	Dilberry	Dilberry	Dilberry	Battle	Battle	Battle	Mean
	1	2	3	1	2	3	1	2	3	1	2	3	
<i>Achillea</i>						0.6							0.05
<i>Astragalus</i>			1.0									0.8	0.15
<i>Lupinus</i>				1.1									0.09
<i>Medicago/Trifolium</i>	10.9	9.3	8.0	10.5	9.2	13.6		0.3	0.6	10.3	10.2	9.4	7.69
<i>Mentha</i>		3.4											0.28
<i>Potentilla</i>							3.1						0.26
Composite				0.6									0.05
Mustard					1.1								0.09
Forb		1.4	1.4		3.3	1.2	1.5	0.6		1.5		1.7	1.05
Total Forbs:	10.9	14.1	10.4	12.2	13.6	15.4	4.6	0.9	0.6	11.8	10.2	11.9	9.72
<i>Agropyron spp.</i>				1.1		2.4	2.3			2.2	2.4		0.87
<i>Bromus spp.</i>			2.1		3.3	3.5	3.8				4.1		1.40
<i>Poa spp.</i>				2.2	6.5	2.4			2.2	1.3			1.22
Grass		1.4					1.5	1.1			0.7		0.39
Total Grasses:	0.0	1.4	2.1	3.3	9.8	8.3	7.6	3.3	1.3	2.9	6.5	0.0	3.88
Carex spp.	0.0	0.0	0.0	5.5	4.3	2.3	0.0	1.1	0.0	0.0	0.0	0.0	1.10
Acer leaf	3.6				5.4	2.4				3.8	3.7	4.2	1.93
Acer stem				5.5			3.8		1.9		1.6		1.07
Amelanchier leaf							4.6	1.1					0.48
Amelanchier stem		5.5	0.7	7.7			10.7	6.2	5.6				3.03
Arctostaphylos stem			1.4										0.12
Cornus leaf	1.8	0.7		6.1	4.4	6.5		0.6		4.0	9.3	5.5	3.24
Elaeagnus leaf	13.7	18.7	13.3	2.2	4.3	13.0	4.6	5.6	1.9	21.2	22.0	15.3	11.32
Populus spp. leaf			1.4	1.1	4.4		3.8		0.6	1.5	5.7	6.0	2.04
Populus spp. stem	6.4			4.4	4.3		3.8	22.4	11.2	2.9			4.62
Prunus leaf			2.8							1.5			0.36
Prunus stem	2.7		2.8	1.1			3.8	6.2	7.5				2.01
Rosa leaf	1.8	2.1	2.1	5.5		2.4	3.8						1.48
Rosa stem								1.1					0.09
Rubus spp. leaf			2.1	7.8									0.83
Rubus spp. stem					3.3								0.28
Salix spp. leaf	18.2	20.1	16.1	16.6	12.5	15.4	7.6	12.3	26.2	7.3	8.9	6.0	13.93
Salix spp. stem	5.5	6.9	10.5	13.3	21.7	22.5	17.6	12.3	13.7	8.8	4.1	12.8	12.48
Symphoricarpos leaf	30.0	28.4	32.9	4.4	10.9	8.3	8.4	16.3	10.0	29.3	29.3	27.2	19.62
Shrub leaf	3.6	2.1				3.5	0.8	1.1	5.6	2.9	1.6	6.0	2.27
Shrub stem			1.4		1.1		1.5		1.3				0.44
Total Shrubs:	87.3	84.5	87.5	75.7	72.3	74.0	74.8	85.2	89.3	83.1	82.5	83.0	81.60
Juniperus	1.8	0.0	0.0	3.3	0.0	0.0	13.0	6.2	8.8	0.0	0.0	0.0	2.76
Thorn:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.09
Lichen:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.18
Seed/Nut:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.8	5.1	0.68
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.00

Appendix VI. Migration timing of VHF- and GPS-collared white-tailed deer in 2006-2009. Dates is defined by day/month/year.

Deer ID	Collar type	Species	Sex	Age	Spring Migration			Fall Migration		# Points
					Begin	End	# Points	Begin	End	
D106011	VHF	WTDE	F	A	28/03/06	13/04/06	2	17/11/06	17/01/07	12
D106011	VHF	WTDE	F	A	25/03/07	12/04/07	2	11/11/07	26/01/08	2
D106011	VHF	WTDE	F	A	25/03/08	10/04/08	2	01/12/08	11/12/08	2
D106011	VHF	WTDE	F	A	21/03/09	10/04/09	3			
D107036	VHF	WTDE	F	A				05/12/07	17/12/07	2
D107036	VHF	WTDE	F	A	19/03/08	10/04/08	3	09/12/08	07/01/09	
D107036	VHF	WTDE	F	A	21/03/09	06/04/09	3			
D107056	VHF	MUDE	F	A	06/04/07	19/04/07	2	28/11/07	28/11/07	1
D107056	VHF	MUDE	F	A	10/04/08	04/05/08	3			
D107087	VHF	WTDE	F	A	20/03/07	30/03/07	2	22/11/07	03/12/07	2
D107087	VHF	WTDE	F	A	23/03/08	10/04/08	2	11/12/08	01/03/09	3
D107159	VHF	WTDE	F	A	25/03/07	17/04/07	2	06/01/08	26/01/08	2
D107159	VHF	WTDE	F	A	09/04/08	16/04/08	2	07/01/09	01/03/09	3
D107159	VHF	WTDE	F	A	06/04/09	18/04/09	2			
D107161	VHF	WTDE	F	A	29/03/07	17/04/07	2	12/12/07	18/12/07	2
D107161	VHF	WTDE	F	A	13/04/08	06/05/08	2	05/12/08	19/12/08	3
D107161	VHF	WTDE	F	A	06/04/09	10/04/09	2			
D107169	VHF	WTDE	F	A	27/03/07	30/03/07	3	06/01/08	31/01/08	2
D107169	VHF	WTDE	F	A	19/03/08	12/04/08	2	16/12/08	23/01/09	2
D107169	VHF	WTDE	F	A	21/03/09	06/04/09	2			
D107172	VHF	WTDE	F	A	29/03/07	14/04/07	2	12/12/07	12/12/07	1
D107172	VHF	WTDE	F	A	29/04/08	10/05/08	2	19/12/08	24/01/09	3
D107172	VHF	WTDE	F	A	20/04/09	14/05/09	2			
D107153	VHF	WTDE	F	A	29/03/07	17/04/07	3	06/01/08	14/01/08	2
D107153	VHF	WTDE	F	A	02/04/08	13/04/08	2			
D307057	VHF	WTDE	F	A	30/03/07	15/04/07	2	17/12/07	24/01/08	2
D307057	VHF	WTDE	F	A	19/03/08	24/04/08	2	11/12/08	22/01/09	2
D307057	VHF	WTDE	F	A	05/04/09	14/04/09	2			
D307109	VHF	MUDE	F	A	26/03/07	09/04/07	2	13/12/07	09/01/08	2
D307109	VHF	MUDE	F	A	09/03/08	26/04/08	4	17/01/09	05/02/09	
D307109	VHF	MUDE	F	A	23/03/09	14/04/09	2			
D307117	VHF	WTDE	F	A				02/11/07	06/12/07	2
D307117	VHF	WTDE	F	A	20/06/08	29/06/08	2	09/10/08	29/10/08	2
D307117	VHF	WTDE	F	A	09/07/09	05/09/09	4			
D307113	VHF	MUDE	F	A	26/03/07	15/04/07	2	13/12/07	09/01/08	2
D307177	VHF	WTDE	F	A	18/04/07	03/05/07	2	17/11/07	12/11/07	2
D307177	VHF	WTDE	F	A	05/05/08	02/06/08	2	14/11/08	28/11/08	
D308235	VHF	WTDE	F	A	03/04/08	13/04/08	2	03/12/08	08/01/09	2
D308235	VHF	WTDE	F	A	15/03/09	15/05/09	2			
D308238	VHF	WTDE	F	A	07/04/08	02/07/08	2	03/12/08	20/01/09	3
D308238	VHF	WTDE	F	A	10/04/09	15/05/09	2			
D308243	VHF	MUDE	F	A	19/05/08	27/05/08	2	09/01/09	22/02/09	3

Appendix VI Continued

Deer ID	Collar type	Species	Sex	Age	Spring Migration			Fall Migration		# Points
					Begin	End	# Points	Begin	End	
D308243	VHF	MUDE	F	A	20/03/09	14/04/09	2			
D308244	VHF	MUDE	F	A	09/04/08	04/05/08	3	08/01/09	22/02/09	3
D308244	VHF	MUDE	F	A	14/04/09	10/05/09	2			
D407076	VHF	MUDE	F	A	26/03/07	09/04/07	2	13/12/07	09/01/08	2
D407076	VHF	MUDE	F	A	09/04/08	25/04/08	2			
D407079	VHF	WTDE	F	A	12/04/07	06/06/07	4	13/11/07	24/11/07	3
D407079	VHF	WTDE	F	A	04/04/08	15/04/08	2	30/11/08	08/12/08	2
D408233	VHF	MUDE	F	A	29/05/08	04/06/08	11	02/12/08	12/12/08	2
D408233	VHF	MUDE	F	A	24/03/09	16/05/09	2			
D407184	VHF	WTDE	F	A				04/02/08	26/02/08	3
D407184	VHF	WTDE	F	A	25/03/08	10/04/08	2	12/12/08	16/01/09	2
D407184	VHF	WTDE	F	A	21/03/09	16/05/09	2			
D308247	GPS	MUDE	F	A	10/04/08	11/04/08	16			
D407139	GPS	MUDE	M	A	25/03/07	25/03/07				
D407143	GPS	MUDE	F	A	11/04/07	13/04/07				
D508219	GPS	MUDE	F	Yr	23/03/08	25/03/08				
D508227	GPS	MUDE	F	A	14/05/08	14/05/08				
D508216	GPS	MUDE	F	A	26/03/08	03/04/08				
D408213	GPS	MUDE	F	Yr	15/04/08	15/04/08				
D307136	GPS	MUDE	F	A	12/03/07	22/03/07				
D107070	GPS	WTDE	F	A	25/03/07	27/03/07				
D307038	GPS	WTDE	F	A	25/03/07	31/03/07				
D307042	GPS	WTDE	F	A				13/12/06	16/12/06	
D307042	GPS	WTDE	F	A	14/04/07	17/04/07				
D308263	GPS	WTDE	F	A	06/04/08	07/04/08				
D107072	GPS	WTDE	F	A				22/01/07	22/01/07	
D107072	GPS	WTDE	F	A	19/03/07	24/03/07				
D108269	GPS	WTDE	F	A				04/01/09	08/01/09	
D408271	GPS	WTDE	F	Yr				25/12/08	26/12/08	
D308265	GPS	MUDE	F	A	10/04/08	10/04/08		12/02/09	12/02/09	
D308265	GPS	MUDE	F	A	25/03/09	25/03/09				
D309312	GPS	MUDE	F	A	03/04/09	04/04/09		25/02/09	25/02/09	
D309314	GPS	MUDE	F	A	14/04/09	15/04/09		25/02/09	25/02/09	
D509320	GPS	WTDE	F	A	04/04/09	05/04/09		14/02/09	15/02/09	
D609304	GPS	WTDE	F	A	23/03/09	26/03/09		25/01/10	27/01/10	
D609305	GPS	WTDE	F	A	08/04/09	09/04/09		25/01/10	26/01/10	

Appendix VII. Statistical output for differences in sizes of 95% home ranges of GPS- and VHF-collared deer in winter and summer of mule deer and white-tailed deer during 2006-2009. See text for details.

GPS-collared deer:

	Number of obs =	100	R-squared =	0.1844
	Root MSE =	5.56237	Adj R-squared =	0.1224

Source	Partial SS	df	MS	F	Prob > F
Model	643.710179	7	91.958597	2.97	0.0074
season	236.894165	1	236.894165	7.66	0.0068
species	25.3941892	1	25.3941892	0.82	0.3673
sex	97.6853311	1	97.6853311	3.16	0.0789
sex*season	56.3913164	1	56.3913164	1.82	0.1803
species*season	63.4916714	1	63.4916714	2.05	0.1554
sex*season*species	13.8106575	2	6.90532873	0.22	0.8004
Residual	2846.47287	92	30.9399225		
Total	3490.18305	99	35.2543743		

VHF-collared deer:

	Number of obs =	450	R-squared =	0.2321
	Root MSE =	6.7742	Adj R-squared =	0.2199

Source	Partial SS	df	MS	F	Prob > F
Model	6129.21418	7	875.602026	19.08	0.0000
season	4939.1374	1	4939.1374	107.63	0.0000
species	260.219088	1	260.219088	5.67	0.0177
sex	404.150181	1	404.150181	8.81	0.0032
sex*season	929.98115	1	929.98115	20.27	0.0000
species*season	336.498768	1	336.498768	7.33	0.0070
sex*season*species	499.086569	2	249.543285	5.44	0.0046
Residual	20283.2906	442	45.8897978		
Total	26412.5048	449	58.8251778		

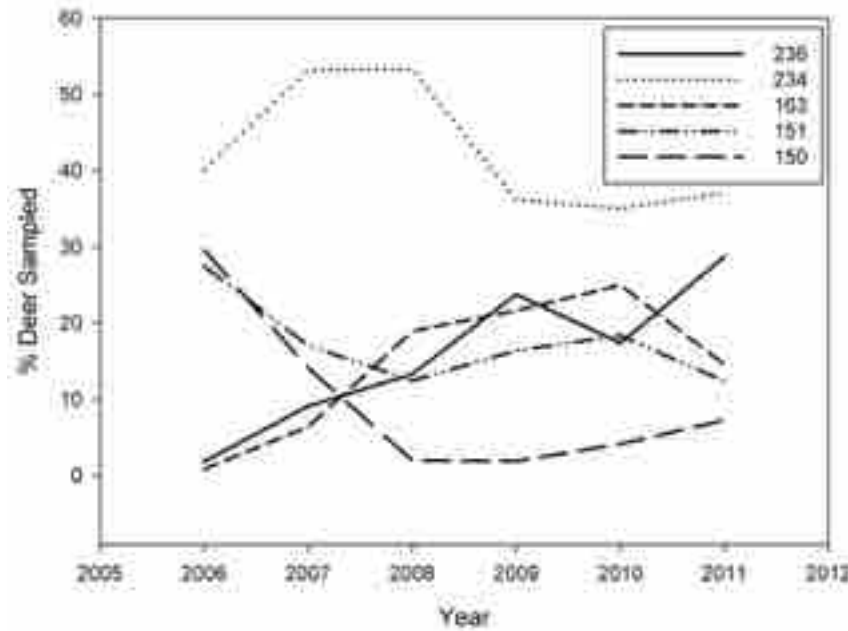
Appendix VIII. P_{IDM} model parameters for predicting the probability that a harvest deer in 2005-2010 in east-central Alberta and west-central Saskatchewan is CWD+. Parameter values (*B*), standard errors (SE), confidence intervals (CI) and standardized regression coefficients (SRC). For the species covariate mule deer is denoted by MUDE.

Covariate	<i>B</i>	SE	CI	SRC
Null model:				
Intercept	-7.05	0.70	-8.42, -5.67	-
Province (AB = 1)	-1.91	0.26	-2.42, -1.40	-0.21
Harvest (hunter = 1)	-1.33	0.35	-2.02, -0.65	-0.16
Time	0.31	0.09	0.15, 0.48	0.12
Species (MUDE = 1)	1.67	0.36	0.96, 2.39	0.24
Sex (male = 1)	0.79	0.23	0.34, 1.24	0.12
Full model:				
Intercept	-5.21	0.93	-7.03, -3.39	-
Agri _{12km}	2.29	0.63	1.04, 3.53	0.000036
Rugg _{12km}	-0.21	0.08	-0.37, -0.06	-0.000082
Droad	0.000557	0.000267	0.00003, 0.00108	0.000015
Stream _{3km}	0.000046	0.000116	-0.00018, 0.00027	0.000005
M _{Resistance}	-1.16	0.46	-2.06, -0.27	-0.440000
Province (AB = 1)	-1.39	0.44	-2.25, -0.54	-0.000026
Harvest (hunter = 1)	-2.74	0.65	-4.01, -1.47	-0.000055
Time	0.38	0.09	0.20, 0.56	0.000025
Species (MUDE = 1)	1.58	0.37	0.85, 2.30	0.000038
Sex (male = 1)	-0.09	0.38	-0.84, 0.65	-0.000002
Rugg _{12km} x Sex	0.06	0.03	0.01, 0.11	0.000023
Agri _{12km} x Droad	-0.00252	0.008	-0.00412, -0.00093	-0.000034
Rugg _{12km} x Harvest	0.18	0.08	0.02, 0.33	0.000077
Stream _{3km} x Province	0.000207	0.000114	-0.000017, 0.000431	0.000020
Droad x Province	-0.000751	0.000402	-0.00154, 0.000037	-0.000020

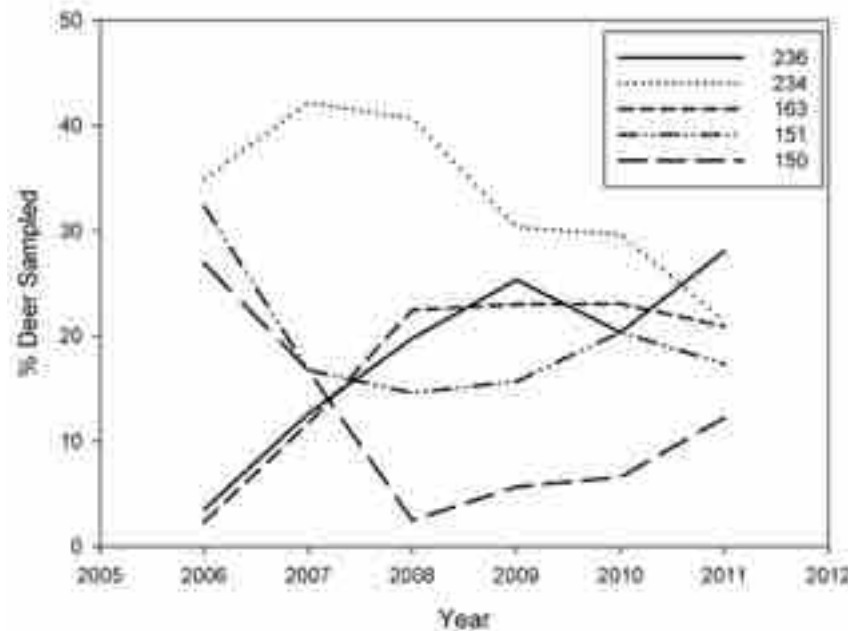
Appendix IX. The percentage of 18km² hexagonal cells with ≥ 16 white-tailed deer or mule deer sampled by hunter-harvest and tested for CWD within WMUs which were mandatory and voluntary for deer head submissions. In 2010 and 2011 all WMUs had mandatory deer head submissions and none were voluntary.

Year	Mandatory	Voluntary
2006	3.82	0.19
2007	3.17	0.76
2008	2.09	0.61
2009	1.33	0.00
2010	0.84	-
2011	0.12	-
Mean	1.89	0.39
St. Dev.	1.41	0.36

Female Mule Deer



Male Mule Deer



Appendix X. The percentage of deer submitted by hunters for CWD-testing within 5 WMUs (236, 234, 163, 151 and 150) from 2006-2011. Note that the percentage does not reflect the amount of sampling done in a WMU relative to the whole province, rather only within the 5 WMUs therefore percentages total to one-hundred in each year.