

Ecography

ECOG-00534

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Supplementary material

Appendix 1. Periods over which GPS data were obtained for eight collared wildebeest herds.

Herd Id	Duration data obtained	Dates of data period
35	12 months	April 2009 to March 2010
145	25 months	April 2009 to April 2011
148	16 months ^a	April 2009 to October 2010
149	21 months	April 2009 to December 2010
150	22 months	April 2009 to January 2011
196	20 months	September 2010 to April 2011
375	13 months	April 2010 to April 2011
376	20 months ^a	April 2009 to April 2011

^a Gaps in data for some months are due to GPS failure

Appendix 2. Model selection characteristics of *a priori* set of models considered for explaining relationship between faecal nutrients and seasonal habitat use. Models are arranged in descending order of probability, for each season and fecal nutrient.

Season	Nutrient	Models	N	AICc	Delta-AIC	ω_i	ER
Dormant	N	Use-GRA	65	-137.312	0	0.551726	--
		Use-SOL	65	-134.43	2.8823428	0.130566	4.225643
		Use-BUR	65	-133.613	3.6988153	0.086803	6.356054
		Use-SZG	65	-133.551	3.7606536	0.08416	6.555647
		Use-WOD	65	-133.367	3.9453596	0.076736	7.189918
		Use-GAL	65	-133.183	4.128865	0.070009	7.880824
Dormant	P	Use-GRA	65	-202.312	0	0.175262	--
		Use-GAL	65	-202.312	0	0.175262	1
		Use-SZG	65	-202.312	0	0.175262	1
		Use-SOL	65	-202.312	0	0.175262	1
		Use-WOD	65	-202.312	0	0.175262	1
		Use-BUR	65	-201.615	0.6970513	0.123688	1.416977
Dormant	Na	Use-SZG	65	-119.718	0	0.427634	--
		Use-GAL	65	-118.861	0.8571883	0.278571	1.535098
		Use-SOL	65	-116.808	2.9098343	0.099818	4.284129
		Use-GRA	65	-116.134	3.5843979	0.071241	6.002637
		Use-BUR	65	-115.835	3.8827709	0.061368	6.968399
		Use-WOD	65	-115.835	3.8827709	0.061368	6.968399
Transition- to-Wet	N	Use-BUR	11	-6.17101	0	0.503515	--
		Use-WOD	11	-4.84814	1.3228652	0.25987	1.937566
		rain+Use-BUR	11	-1.43624	4.7347628	0.047192	10.66942
		Use-GRA	11	-1.29716	4.873843	0.044022	11.43778
		rain+Use-WOD	11	-1.10665	5.0643583	0.040022	12.58089
		rain	11	-0.49154	5.6794647	0.029426	17.11119
		Use-GAL	11	-0.02961	6.1413933	0.023357	21.55692
		Use-SZG	11	0.176587	6.3475928	0.021069	23.89804
		Use-SOL	11	0.525021	6.6960271	0.017701	28.44617
		rain+Use-GRA	11	3.249413	9.4204189	0.004533	111.0754
		rain+Use-GAL	11	3.462594	9.6335998	0.004075	123.569
		rain+Use-SZG	11	4.034328	10.205334	0.003062	164.4599
rain+Use-SOL	11	4.73615	10.907156	0.002156	233.5924		
Transition- to-Wet	P	Use-BUR	11	-16.5331	0	0.436891	--

		Use-WOD	11	-15.0118	1.5213297	0.204184	2.139698
		Use-GRA	11	-13.5301	3.003014	0.097337	4.488448
		rain+Use-BUR	11	-12.411	4.1220612	0.055626	7.85406
		rain	11	-12.1161	4.4169855	0.048	9.101987
		rain+Use-WOD	11	-11.9329	4.6001838	0.043798	9.975099
		Use-GAL	11	-11.3181	5.2150428	0.032206	13.56539
		Use-SZG	11	-11.1539	5.3792253	0.029668	14.72597
		Use-SOL	11	-10.5769	5.9562276	0.022233	19.65072
		rain+Use-GRA	11	-9.42481	7.1082835	0.012498	34.9578
		rain+Use-GAL	11	-8.56504	7.9680498	0.008131	53.73287
		rain+Use-SZG	11	-7.93416	8.5989307	0.005931	73.6604
		rain+Use-SOL	11	-6.87801	9.6550807	0.003498	124.9034
Transition- to-Wet	Na	Use-SZG	11	-10.52	0	0.181844	--
		Use-WOD	11	-10.011	0.5089826	0.140986	1.289805
		Use-SOL	11	-9.96046	0.5595359	0.137467	1.322823
		Use-GAL	11	-9.73936	0.7806301	0.12308	1.477446
		Use-GRA	11	-9.69159	0.8284029	0.120175	1.513162
		rain	11	-9.66788	0.8521113	0.118759	1.531206
		Use-BUR	11	-9.64429	0.8757027	0.117366	1.549375
		rain+Use-SZG	11	-5.31025	5.2097436	0.013441	13.52949
		rain+Use-WOD	11	-4.77292	5.7470778	0.010274	17.69954
		rain+Use-SOL	11	-4.72236	5.7976311	0.010017	18.15263
		rain+Use-GAL	11	-4.52534	5.9946586	0.009078	20.03197
		rain+Use-GRA	11	-4.4535	6.0664981	0.008757	20.76459
		rain+Use-BUR	11	-4.4535	6.0664981	0.008757	20.76459
Growing	N	rain	58	-92.7335	0	0.236523	--
		rain+Use-BUR	58	-92.7063	0.0272601	0.233321	1.013723
		rain+Use-GAL	58	-91.7728	0.960739	0.146303	1.616672
		rain+Use-SOL	58	-91.4924	1.2411398	0.127164	1.859988
		rain+Use-GRA	58	-90.7596	1.9739647	0.088152	2.683126
		rain+Use-SZG	58	-90.6695	2.0640868	0.084268	2.806795
		rain+Use-WOD	58	-90.6695	2.0640868	0.084268	2.806795
		Use-BUR	58	-63.7303	29.003267	1.19E-07	1986001
		Use-SOL	58	-62.8175	29.916065	7.55E-08	3134664
		Use-GRA	58	-62.3932	30.340327	6.1E-08	3875415
		Use-SZG	58	-62.2136	30.519988	5.58E-08	4239661
		Use-GAL	58	-62.0483	30.685206	5.14E-08	4604769
		Use-WOD	58	-62.0154	30.71812	5.05E-08	4681177
Growing	P	Rain	58	-120.608	0	0.311655	--

		rain+Use-SOL	58	-118.637	1.9712488	0.116312	2.679484
		rain+Use-SZG	58	-118.5	2.1074064	0.108657	2.868253
		rain+Use-WOD	58	-118.433	2.1752101	0.105035	2.967159
		rain+Use-GRA	58	-118.298	2.3102725	0.098176	3.174456
		rain+Use-GAL	58	-118.298	2.3102725	0.098176	3.174456
		rain+Use-BUR	58	-118.298	2.3102725	0.098176	3.174456
		Use-SZG	58	-114.218	6.3901753	0.012766	24.41231
		Use-SOL	58	-114.113	6.494478	0.012118	25.71923
		Use-BUR	58	-113.7	6.907423	0.009857	31.61752
		Use-WOD	58	-113.7	6.907423	0.009857	31.61752
		Use-GAL	58	-113.649	6.9585684	0.009608	32.4365
		Use-GRA	58	-113.649	6.9585684	0.009608	32.4365
Growing	Na	Use-SOL	58	-86.5446	0	0.277046	--
		Use-GAL	58	-85.2543	1.2902888	0.145334	1.906262
		rain+Use-SOL	58	-84.941	1.6036601	0.124257	2.229618
		Use-SZG	58	-84.5365	2.008161	0.101504	2.729396
		rain+Use-GAL	58	-84.3916	2.1530041	0.094413	2.934397
		rain+Use-SZG	58	-84.1648	2.3798557	0.084289	3.286844
		Use-WOD	58	-83.0529	3.4916777	0.048344	5.730707
		rain	58	-82.1591	4.3855295	0.03092	8.959951
		rain+Use-WOD	58	-81.7009	4.8437224	0.02459	11.26681
		Use-GRA	58	-81.652	4.8926607	0.023995	11.5459
		Use-BUR	58	-81.4235	5.1211346	0.021405	12.94316
		rain+Use-GRA	58	-80.3664	6.1782506	0.012617	21.95786
		rain+Use-BUR	58	-80.1433	6.4013617	0.011285	24.54924
