

Supplementary tables

Supplementary table S1. Details of group-size effects. Shown are least-squares means for each combination of species and group size. Least-squares means are adjusted for other terms in the model and de-transformed to the scale of the original data, with higher values (closer to 1) indicating a higher occurrence of mixed-species groups. Cases with insufficient sample sizes of large groups to include are denoted with n/a.

group size	buffalo	gazelle	hartebeest	topi	wildebeest	zebra
small	0.0408	0.03784	0.0842	0.046	0.347	0.0436
medium	0.0465	0.10102	0.5356	0.723	0.432	0.2558
large	n/a	1	n/a	n/a	0.528	0.8812

Supplementary table S2a. Full model results for Availability models

BUFFALO					
<u>term</u>	<u>parameter estimate</u>	<u>Chisq</u>	<u>Df</u>	<u>nominal p</u>	<u>corrected p</u>
intercept	-0.7306	32.5486	1	1.16E-08	6.97E-08
conspecific SSG	0.36351	57.7956	1	2.91E-14	1.74E-13
time period	<i>midday highest</i>	10.8459	2	0.004414	2.65E-02
season	.	1.469	1	0.225503	1.35E+00
habitat type	.	2.7335	1	0.098261	5.90E-01
encount risk	-0.02207	0.1089	1	0.741456	4.45E+00
kopje distance	0.05939	0.6371	1	0.424759	2.55E+00
NDVI	-0.187	10.2321	1	0.00138	8.28E-03

GAZELLE					
<u>term</u>	<u>parameter estimate</u>	<u>Chisq</u>	<u>Df</u>	<u>nominal p</u>	<u>corrected p</u>
intercept	-2.12921	572.4745	1	<2.2e-16	1.32E-15
conspecific SSG	0.05489	4.1001	1	0.0428813	2.57E-01
time period	<i>midday highest</i>	60.772	2	6.36E-14	3.82E-13
season	.	1.4917	1	0.2219494	1.33E+00
habitat type	<i>woodland > plains</i>	14.0018	1	0.0001826	1.10E-03
encount risk	0.11214	5.9265	1	0.0149146	8.95E-02
kopje distance	-0.01459	0.0718	1	0.7886955	4.73E+00
NDVI	0.39932	194.0129	1	<2.2e-16	1.32E-15

HARTEBEEST					
<u>term</u>	<u>parameter estimate</u>	<u>Chisq</u>	<u>Df</u>	<u>nominal p</u>	<u>corrected p</u>
intercept	-0.50279	17.5693	1	2.77E-05	1.66E-04
conspecific SSG	0.25481	34.5989	1	4.05E-09	2.43E-08
time period	<i>midday highest</i>	21.7883	2	1.86E-05	1.11E-04
season	.	1.8525	1	0.173489	1.04E+00
habitat type	.	0.6333	1	0.426133	2.56E+00
encount risk	0.0276	0.2419	1	0.622815	3.74E+00
kopje distance	-0.03728	0.2788	1	0.597497	3.58E+00
NDVI	-0.15024	7.6076	1	0.005812	3.49E-02

TOPI					
<u>term</u>	<u>parameter estimate</u>	<u>Chisq</u>	<u>Df</u>	<u>nominal p</u>	<u>corrected p</u>
intercept	-0.3061	2.9361	1	0.0866217	0.5197302
conspecific SSG	0.33499	21.9651	1	2.78E-06	1.6662E-05
time period	<i>midday highest</i>	14.1321	2	0.0008536	0.0051216
season	.	0.9476	1	0.3303347	1.9820082
habitat type	.	1.9497	1	0.1626141	0.9756846
encount risk	0.08919	0.9911	1	0.3194723	1.9168338
kopje distance	-0.03355	0.1326	1	0.7157411	4.2944466

NDVI	-0.27668	11.0523	1	0.0008858	0.0053148
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WILDEBEEST					
<u>term</u>	<u>parameter estimate</u>	<u>Chisq</u>	<u>Df</u>	<u>nominal p</u>	<u>corrected p</u>
intercept	-0.17853	8.0598	1	0.004526	0.027156
conspecific SSG	0.0737	10.2208	1	0.001389	0.008334
time period	<i>midday highest</i>	66.7921	2	3.14E-15	1.881E-14
season	.	1.928	1	0.164977	0.989862
habitat type	.	4.6985	1	0.030189	0.181134
encount risk	-0.02117	0.4471	1	0.503694	3.022164
kopje distance	-0.04198	1.1066	1	0.292824	1.756944
NDVI	0.02202	0.8358	1	0.360591	2.163546

ZEBRA					
<u>term</u>	<u>parameter estimate</u>	<u>Chisq</u>	<u>Df</u>	<u>nominal p</u>	<u>corrected p</u>
intercept	-0.91845	295.2795	1	<2.2e-16	1.32E-15
conspecific SSG	0.2042	116.0888	1	<2.2e-16	1.32E-15
time period	<i>midday highest</i>	74.7014	2	<2.2e-16	1.32E-15
season	.	0.4309	1	0.5115717	3.07E+00
habitat type	.	3.8466	1	0.0498463	2.99E-01
encount risk	0.02414	0.7478	1	0.3871698	2.32E+00
kopje distance	-0.0926	7.1061	1	0.0076823	4.61E-02
NDVI	0.07922	14.1751	1	0.0001666	1.00E-03

Supplementary table S2b. Full model results for Group Type models

BUFFALO					
<u>term</u>	<u>parameter estimate</u>	<u>Chisq</u>	<u>Df</u>	<u>nominal p</u>	<u>corrected p</u>
intercept	-2.74085	7.7037	1	0.005511	0.033066
group size category	-0.14121	0.0497	1	0.823542	4.941252
heterospecific.lone	0.04999	0.0476	1	8.27E-01	4.963776
conspecific.lone	-1.16456	1.6013	1	2.06E-01	1.234344
heterospecific MSG	0.13238	1.8628	1	1.72E-01	1.033794
heterospecific SSG	0.2961	2.1186	1	0.145519	0.873114
conspecific SSG	-0.35138	1.0377	1	0.308353	1.850118
conspecific MSG	1.49521	4.3421	1	3.72E-02	0.223092
time period	.	1.6467	2	4.39E-01	2.633814
season	.	4.033	1	4.46E-02	0.267714
habitat type	.	2.031	1	0.154115	0.92469
encount risk	0.17343	0.3662	1	0.545059	3.270354
kopje distance	-0.58447	3.4771	1	0.062226	0.373356
NDVI	0.39502	1.4595	1	0.227004	1.362024

GAZELLE					
<u>term</u>	<u>parameter estimate</u>	<u>Chisq</u>	<u>Df</u>	<u>nominal p</u>	<u>corrected p</u>
intercept	-1.80268	45.0731	1	1.90E-11	1.14E-10
group size category	.	32.3551	2	9.42E-08	5.65E-07
heterospecific.lone	0.47135	17.7323	1	2.54E-05	1.53E-04
conspecific.lone	-0.3812	10.6126	1	0.0011232	6.74E-03
heterospecific MSG	0.34205	1.0196	1	0.3126219	1.88E+00
heterospecific SSG	0.92904	49.2125	1	2.30E-12	1.38E-11
conspecific SSG	-0.65979	34.2732	1	4.79E-09	2.87E-08
conspecific MSG	0.54332	25.8549	1	3.68E-07	2.21E-06
time period	.	1.3339	2	0.5132805	3.08E+00
season	.	6.6877	1	0.0097081	5.82E-02
habitat type	.	0.339	1	0.5604095	3.36E+00
encount risk	0.03885	0.2101	1	0.6467257	3.88E+00
kopje distance	0.03916	0.2417	1	0.6229792	3.74E+00
NDVI	0.26978	11.5793	1	0.0006669	4.00E-03

HARTEBEEST					
<u>term</u>	<u>parameter estimate</u>	<u>Chisq</u>	<u>Df</u>	<u>nominal p</u>	<u>corrected p</u>
intercept	0.4631658	0.4137	1	0.5201047	3.1206282
group size category	.	21.4033	1	3.72E-06	2.2326E-05
heterospecific.lone	0.1373559	1.0444	1	0.3067953	1.8407718
conspecific.lone	-0.4095975	4.6354	1	3.13E-02	0.1879104
heterospecific MSG	0.1148727	0.8026	1	0.3703311	2.2219866
heterospecific SSG	0.3570823	7.4975	1	0.0061786	0.0370716
conspecific SSG	-0.3276681	4.6919	1	0.0303059	0.1818354

conspecific MSG	0.5791463	11.7914	1	0.0005951	0.0035706
time period	.	2.8429	2	0.241365	1.44819
season	.	1.844	1	0.1744796	1.0468776
habitat type	.	0.0198	1	0.8881247	5.3287482
encount risk	-0.0336035	0.054	1	0.8162689	4.8976134
kopje distance	-0.0006671	0	1	0.9963056	5.9778336
NDVI	-0.361329	4.1941	1	0.040566	0.243396

TOPI					
<u>term</u>	<u>parameter e</u>	<u>Chisq</u>	<u>Df</u>	<u>nominal p</u>	<u>corrected p</u>
intercept	1.763266	4.7516	1	0.02927	0.17562
group size category	.	36.7871	1	1.32E-09	7.908E-09
heterospecific.lone	-0.040591	0.031	1	0.86023	5.16138
conspecific.lone	0.005334	0.0004	1	0.9831	5.8986
heterospecific MSG	-0.082071	0.0922	1	0.76134	4.56804
heterospecific SSG	0.424201	5.1679	1	0.02301	0.13806
conspecific SSG	-0.392636	1.5329	1	0.21567	1.29402
conspecific MSG	-0.020243	0.0154	1	0.9013	5.4078
time period	.	0.5284	2	0.76781	4.60686
season	.	2.5829	1	0.10802	0.64812
habitat type	.	0.3151	1	0.57454	3.44724
encount risk	-0.008233	0.0016	1	9.68E-01	5.81052
kopje distance	-0.197185	0.7009	1	4.02E-01	2.41488
NDVI	0.191088	0.6872	1	0.40711	2.44266

WILDEBEEST					
<u>term</u>	<u>parameter e</u>	<u>Chisq</u>	<u>Df</u>	<u>nominal p</u>	<u>corrected p</u>
intercept	-0.28918	0.8602	1	0.3536796	2.1220776
group size category	.	12.9551	2	0.0015375	0.009225
heterospecific.lone	0.17154	3.8734	1	0.0490559	0.2943354
conspecific.lone	-0.08945	1.8915	1	0.1690353	1.0142118
heterospecific MSG	0.03199	0.1369	1	0.7113864	4.2683184
heterospecific SSG	0.78321	14.6759	1	0.0001277	0.0007662
conspecific SSG	-0.60544	52.3298	1	4.69E-13	2.8152E-12
conspecific MSG	0.90403	25.6526	1	4.09E-07	2.4528E-06
time period	.	2.0147	2	0.3651865	2.191119
season	.	0.8625	1	0.3530282	2.1181692
habitat type	.	0.5328	1	0.465424	2.792544
encount risk	0.01754	0.0666	1	0.7963259	4.7779554
kopje distance	-0.05426	0.6382	1	0.4243519	2.5461114
NDVI	-0.0242	0.1486	1	0.6998452	4.1990712

ZEBRA					
<u>term</u>	<u>parameter estimate</u>	<u>Chisq</u>	<u>Df</u>	<u>nominal p</u>	<u>corrected p</u>
intercept	-1.036942	47.734	1	4.88E-12	2.93E-11
group size category	.	584.6174	2	<2.2e-16	1.32E-15
heterospecific.lone	0.134522	22.3035	1	2.33E-06	1.40E-05
conspecific.lone	-0.089465	5.378	1	0.02039	1.22E-01
heterospecific MSG	0.030996	2.2713	1	0.13179	7.91E-01
heterospecific SSG	0.36096	147.2313	1	<2.2e-16	1.32E-15
conspecific SSG	-0.419788	99.2741	1	<2.2e-16	1.32E-15
conspecific MSG	0.281188	78.5518	1	<2.2e-16	1.32E-15
time period	.	0.2626	2	0.87696	5.26E+00
season	.	4.8584	1	0.02751	1.65E-01
habitat type	.	1.9622	1	0.16128	9.68E-01
encount risk	-0.004191	0.0076	1	9.30E-01	5.58E+00
kopje distance	-0.061517	1.7918	1	1.81E-01	1.08E+00
NDVI	-0.005374	0.0231	1	8.79E-01	5.28E+00