

Appendix 1

Table S1. Number of red fox and domestic cat scat samples recovered along two-years field work.

habitat	season	Scats with remains		Scats without remains	
		red fox	domestic cat	red fox	domestic cat
park	autumn	51	0	34	25
	winter	31	0	12	23
	spring	26	0	6	18
	summer	112	0	42	19
agricultural land	autumn	38	30	13	2
	winter	28	52	2	10
	spring	20	27	1	7
	summer	73	37	8	2
forest	autumn	20	15	4	16
	winter	40	13	10	17
	spring	34	0	14	4
	summer	75	19	37	6
Total		548	193	183	149

5 **Table S2.** Multivariate Generalized Linear Model results of red fox and domestic cat diet (a) composition (prey_{IBS}) (b) composition (prey_{MNI}) across study sites
6 (park, agricultural land and forest) and seasons (autumn, winter, spring and summer). Res.df = residual degrees of freedom, Df.diff = degree of freedom, Dev
7 = deviation test statistic, Pr = p-value. P-values were calculated using 999 resampling iterations via PIT-trap resampling (to account for correlation in testing).
8 Bold indicates $p < 0.05$.

9 **a)**

Multivariate test			
	Res.Df	Df.diff	Pr(>Dev)
intercept	699		
predator	698	1	0.001
site	696	2	0.001
season	693	3	0.001
site: season	687	6	0.001

Univariate tests:																
	Leporidae		Microtidae		Muridae		Soricidae		Large-medium birds		Small birds		Coleoptera		Hymenoptera	
	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)
intercept																
predator	5.055	0.046	7.625	0.012	1.603	0.264	0.349	0.683	0.294	0.683	0.005	0.894	35.477	0.001	0.000	1.000
site	6.264	0.051	56.956	0.001	7.917	0.025	8.737	0.025	8.402	0.025	0.097	0.851	41.846	0.001	0.000	1.000
season	0.151	0.974	6.109	0.200	0.565	0.974	5.206	0.216	1.02	0.916	0.594	0.974	40.259	0.001	0.000	1.000
site: season	25.239	0.005	8.731	0.513	4.844	0.737	2.615	0.737	33.278	0.001	2.985	0.737	19.199	0.031	0.000	1.000

	Dermaptera		Orthoptera		Heteroptera		Lepidoptera		Arachnida		Earthworms		Small_fruits		Large fruits	
	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)
intercept																
predator	0.586	0.683	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	28.647	0.001	62.449	0.001	0.626	0.617
site	1.792	0.470	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	13.529	0.005	4.842	0.111	1.528	0.470
season	2.974	0.346	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	57.357	0.001	92.724	0.001	6.413	0.187
site: season	0.006	0.737	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	6.067	0.737	85.385	0.001	16.394	0.051

1 **b)**

Multivariate test																
	Res.Df	Df.diff	Dev	Pr(>Dev)												
intercept	699															
predator	698		1 287.0	0.001												
site	696		2 359.8	0.001												
season	693		3 357.7	0.001												
site: season	687		6 265.1	0.001												
Univariate tests																
	Leporidae		Microtidae		Muridae		Sorricidae		Large-medium birds		Small birds		Coleoptera		Hymenoptera	
	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)
intercept																
predator	39.149	0.001	24.278	0.001	6.49	0.112	1.452	0.749	3.821	0.307	0.054	0.807	50.346	0.001	4.37	0.273
site	29.978	0.001	109.3	0.001	36.684	0.001	8.068	0.145	32.198	0.001	1.041	0.772	51.502	0.001	11.176	0.049
season	1.806	0.846	22.934	0.001	11.116	0.087	5.911	0.559	6.779	0.456	1.537	0.846	71.337	0.001	20.798	0.001
site: season	11.544	0.388	16.81	0.085	19.713	0.035	3.315	0.543	25.588	0.014	9.922	0.434	21.903	0.035	5.899	0.543
	Dermaptera		Orthoptera		Heteroptera		Lepidoptera		Arachnida		Earthworms		Small_fruits		Large fruits	
	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)
intercept																
predator	23.482	0.001	1.408	0.749	4.723	0.273	14.32	0.010	1.764	0.749	21.385	0.001	88.826	0.001	1.129	0.749
site	35.695	0.001	3.961	0.656	2.539	0.772	9.136	0.098	2.902	0.772	10.48	0.052	12.753	0.022	2.363	0.772
season	21.388	0.001	12.157	0.057	3.426	0.815	5.796	0.559	2.886	0.815	57.942	0.001	88.99	0.001	22.906	0.001
site: season	10.413	0.434	0.000	0.679	5.404	0.543	7.946	0.543	4.287	0.543	6.968	0.543	100.384	0.001	14.965	0.142

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3 **Table S3.** Multivariate Generalized Linear Model results of red fox diet (a) and domestic cat (b) composition (prey_{MNI}) across study sites (park, agricultural
4 land and forest) and seasons (autumn, winter, spring and summer). Res.df = residual degrees of freedom, Df.diff = degree of freedom, Dev = deviation test
5 statistic, Pr = p-value. P-values were calculated using 999 resampling iterations via PIT-trap resampling (to account for correlation in testing). Bold indicates p
6 < 0.05.

7 **a)**

Multivariate test			
	Res.Df	Df.diff	Pr(>Dev)
intercept	521		
site	519	2	0.001
season	516	3	0.001
site : season	510	6	0.001

Univariate tests																
	Leporidae		Microtidae		Muridae		Soricidae		Large-medium birds		Small birds		Coleoptera		Hymenoptera	
	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)
intercept																
site	18.793	0.002	108.356	0.001	29.267	0.001	7.901	0.147	27.963	0.001	1.056	0.864	50.715	0.001	10.293	0.079
season	1.069	0.939	28.68	0.001	22.035	0.003	2.85	0.903	10.429	0.123	1.158	0.939	81.618	0.001	15.214	0.011
site : season	11.089	0.399	11.843	0.399	20.705	0.027	10.844	0.399	19.253	0.043	15.758	0.128	37.821	0.001	5.552	0.399

	Dermaptera		Orthoptera		Heteroptera		Lepidoptera		Arachnida		Earthworms		Small fruits		Large fruits	
	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)
intercept																
site	35.695	0.001	1.259	0.864	2.539	0.864	9.136	0.107	2.903	0.864	14.012	0.011	15.809	0.004	2.509	0.864
season	21.388	0.003	5.942	0.633	3.427	0.903	5.796	0.633	2.888	0.903	41.042	0.001	84.216	0.001	18.303	0.009
site : season	10.414	0.399	0.000	0.750	5.405	0.399	7.948	0.399	4.286	0.399	10.868	0.399	103.772	0.001	17.029	0.100

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b)

Multivariate test:

	Res.Df	Df.diff	Dev	Pr(>Dev)
intercept	177			
site	175	2	44.32	0.001
season	172	3	85.85	0.001
site : season	171	2	44.79	0.001

Univariate tests:

	Leporidae		Microtidae		Muridae		Soricidae		Large-medium birds		Small birds		Coleoptera		Hymenoptera	
	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)
intercept																
site	12.458	0.003	7.009	0.059	11.722	0.007	0.062	0.992	5.436	0.150	0.077	0.992	2.347	0.645	1.057	0.902
season	4.598	0.801	10.439	0.105	21.4	0.001	3.163	0.832	1.453	0.832	3.244	0.832	3.971	0.832	5.471	0.712
site : season	1.797	0.837	11.687	0.021	4.268	0.469	7.134	0.180	2.655	0.748	5.176	0.407	1.537	0.837	0.001	0.959
	Dermaptera		Orthoptera		Heteroptera		Lepidoptera		Arachnida		Earthworms		Small fruits		Large fruits	
	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)	Dev	Pr(>Dev)
intercept																
site	0.000	1.000	3.499	0.374	0.000	1.000	0.000	1.000	0.000	1.000	0.403	0.976	0.232	0.976	0.017	0.992
season	0.000	1.000	5.871	0.667	0.000	1.000	0.000	1.000	0.000	1.000	17.33	0.003	4.041	0.832	4.868	0.801
site : season	0.000	1.000	0.000	0.959	0.000	1.000	0.000	1.000	0.000	1.000	0.093	0.959	5.424	0.400	5.015	0.407

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3 **Table S4.** Results of mean pairwise diet overlap between red foxes and domestic cats in the agricultural land
4 and forest along seasons (autumn, winter, spring and summer) and 95% Confidence interval. Only sample
5 size larger than 10 scats collected per predator, site and season were analyzed.

Habitat	Season	Overlap	LC	UC
Agricultural land	autumn	0.952	0.902	0.983
	winter	0.839	0.273	0.985
	spring	0.888	0.619	0.975
	summer	0.330	0.198	0.564
Forest	autumn	0.405	0.049	0.923
	winter	0.915	0.048	0.987
	spring	-	-	-
	summer	0.251	0.036	0.600

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