

Manuscript tables

Table 1: Best fit models for each group-response combination measured by AIC. Simple models only include threat status (NT or T) and log-citations. Complete complex models include all host traits and all interactions with threat status. Complete reduced models include some host traits and interactions as included if lower AIC.

Group	Response	Best.model.overall	Best.complex.model
Carnivores	Host parasite richness	Complete	Complete
Primates	Host parasite richness	Reduced	Reduced
Ungulates	Host parasite richness	Reduced	Reduced
Carnivores	Proportion closely transmitted	Reduced	Reduced
Primates	Proportion closely transmitted	Complete	Complete
Ungulates	Proportion closely transmitted	Simple	Reduced
Carnivores	Proportion microparasites	Complete	Complete
Primates	Proportion microparasites	Simple	Complete
Ungulates	Proportion microparasites	Reduced	Reduced

Table 2: Model coefficients and highest posterior density region for best fit model of host-parasite species richness.

Group	predictor	Estimate	Est.Error	Q2.5	Q97.5
Carnivores	Intercept	2.610	0.047	2.517	2.700
Carnivores	combIUCNthreatened	-0.276	0.224	-0.736	0.142
Carnivores	logNumHostCitations_c	0.856	0.026	0.805	0.906
Carnivores	logHostSpeciesRange_c	-0.088	0.036	-0.159	-0.016
Carnivores	groupSizeCargroup	-0.205	0.076	-0.355	-0.059
Carnivores	logHostMass_c	-0.070	0.028	-0.126	-0.015
Carnivores	hostMaxLifespan_c	0.017	0.004	0.009	0.026
Carnivores	absHostMeanLat_c	0.000	0.002	-0.003	0.004
Carnivores	combIUCNthreatened:logNumHostCitations_c	0.384	0.140	0.128	0.671
Carnivores	combIUCNthreatened:logHostSpeciesRange_c	0.206	0.049	0.112	0.304
Carnivores	combIUCNthreatened:groupSizeCargroup	-0.294	0.193	-0.679	0.083
Carnivores	combIUCNthreatened:logHostMass_c	1.117	0.300	0.546	1.729
Carnivores	combIUCNthreatened:hostMaxLifespan_c	-0.158	0.040	-0.238	-0.083
Carnivores	combIUCNthreatened:absHostMeanLat_c	0.100	0.024	0.054	0.150
Primates	Intercept	1.689	0.106	1.478	1.894
Primates	combIUCNthreatened	-0.177	0.170	-0.511	0.153
Primates	logNumHostCitations_c	0.976	0.092	0.801	1.162
Primates	logHostSpeciesRange_c	-0.008	0.049	-0.102	0.088
Primates	logGroupSizePriUng_c	-0.083	0.080	-0.240	0.074
Primates	logHostMass_c	0.088	0.043	0.003	0.173
Primates	hostMaxLifespan_c	0.018	0.005	0.008	0.029
Primates	absHostMeanLat_c	0.002	0.005	-0.009	0.013
Primates	combIUCNthreatened:logNumHostCitations_c	-0.161	0.123	-0.402	0.079
Primates	combIUCNthreatened:logHostSpeciesRange_c	-0.303	0.073	-0.447	-0.162
Primates	combIUCNthreatened:logGroupSizePriUng_c	0.165	0.102	-0.034	0.368
Ungulates	Intercept	3.042	0.041	2.962	3.121
Ungulates	combIUCNthreatened	0.075	0.112	-0.150	0.296

Group	predictor	Estimate	Est.Error	Q2.5	Q97.5
Ungulates	logNumHostCitations_c	0.789	0.031	0.729	0.850
Ungulates	logHostSpeciesRange_c	-0.125	0.025	-0.173	-0.077
Ungulates	logGroupSizePriUng_c	-0.036	0.016	-0.068	-0.005
Ungulates	logHostMass_c	0.019	0.036	-0.050	0.090
Ungulates	hostMaxLifespan_c	-0.023	0.006	-0.036	-0.011
Ungulates	absHostMeanLat_c	-0.008	0.002	-0.012	-0.005
Ungulates	combIUCNthreatened:logNumHostCitations_c	0.298	0.096	0.114	0.490
Ungulates	combIUCNthreatened:logHostSpeciesRange_c	0.116	0.035	0.049	0.185
Ungulates	combIUCNthreatened:logGroupSizePriUng_c	-0.048	0.031	-0.109	0.012

Table 3: Model coefficients and highest posterior density region for best fit model of proportion of only closely transmitted parasites.

Group	predictor	Estimate	Est.Error	Q2.5	Q97.5
Carnivores	Intercept	-1.660	0.140	-1.939	-1.389
Carnivores	combIUCNthreatened	-0.498	0.331	-1.166	0.133
Carnivores	logNumHostCitations_c	-0.405	0.092	-0.585	-0.226
Carnivores	logHostSpeciesRange_c	0.084	0.139	-0.190	0.353
Carnivores	groupSizeCargroup	0.120	0.262	-0.409	0.618
Carnivores	logHostMass_c	0.214	0.093	0.034	0.394
Carnivores	hostMaxLifespan_c	0.007	0.015	-0.022	0.035
Carnivores	absHostMeanLat_c	-0.006	0.006	-0.017	0.006
Carnivores	combIUCNthreatened:logNumHostCitations_c	0.672	0.305	0.106	1.295
Carnivores	combIUCNthreatened:logHostSpeciesRange_c	-0.262	0.151	-0.550	0.040
Carnivores	combIUCNthreatened:groupSizeCargroup	-0.870	0.647	-2.181	0.350
Primates	Intercept	-2.791	0.497	-3.841	-1.895
Primates	combIUCNthreatened	-1.436	1.073	-3.771	0.422
Primates	logNumHostCitations_c	-0.718	0.328	-1.359	-0.083
Primates	logHostSpeciesRange_c	0.593	0.193	0.229	0.988
Primates	logGroupSizePriUng_c	1.282	0.430	0.484	2.142
Primates	logHostMass_c	0.369	0.250	-0.106	0.877
Primates	hostMaxLifespan_c	-0.132	0.049	-0.234	-0.043
Primates	absHostMeanLat_c	0.062	0.023	0.017	0.108
Primates	combIUCNthreatened:logNumHostCitations_c	0.035	0.618	-1.232	1.202
Primates	combIUCNthreatened:logHostSpeciesRange_c	-0.929	0.388	-1.714	-0.198
Primates	combIUCNthreatened:logGroupSizePriUng_c	-0.780	0.544	-1.829	0.306
Primates	combIUCNthreatened:logHostMass_c	0.638	0.475	-0.269	1.606
Primates	combIUCNthreatened:hostMaxLifespan_c	0.210	0.066	0.085	0.343
Primates	combIUCNthreatened:absHostMeanLat_c	0.026	0.055	-0.082	0.134
Ungulates	Intercept	-2.091	0.138	-2.369	-1.823
Ungulates	combIUCNthreatened	0.302	0.259	-0.219	0.791
Ungulates	logNumHostCitations_c	0.069	0.083	-0.092	0.233
Ungulates	combIUCNthreatened:logNumHostCitations_c	0.199	0.235	-0.238	0.690

Table 4: Model coefficients and highest posterior density region for best fit model of proportion of only microparasites (bacteria, viruses, protozoa, fungi).

Group	predictor	Estimate	Est.Error	Q2.5	Q97.5
Carnivores	Intercept	-0.523	0.098	-0.719	-0.331
Carnivores	combiIUCNthreatened	-0.415	0.423	-1.294	0.359
Carnivores	logNumHostCitations_c	-0.179	0.054	-0.282	-0.072
Carnivores	logHostSpeciesRange_c	0.039	0.080	-0.117	0.193
Carnivores	groupSizeCargroup	-0.083	0.159	-0.401	0.224
Carnivores	logHostMass_c	0.227	0.059	0.114	0.343
Carnivores	hostMaxLifespan_c	0.014	0.009	-0.004	0.032
Carnivores	absHostMeanLat_c	0.002	0.004	-0.006	0.009
Carnivores	combiIUCNthreatened:logNumHostCitations_c	1.593	0.292	1.064	2.209
Carnivores	combiIUCNthreatened:logHostSpeciesRange_c	-0.080	0.106	-0.287	0.125
Carnivores	combiIUCNthreatened:groupSizeCargroup	-0.428	0.432	-1.294	0.414
Carnivores	combiIUCNthreatened:logHostMass_c	0.220	0.560	-0.831	1.386
Carnivores	combiIUCNthreatened:hostMaxLifespan_c	-0.175	0.078	-0.334	-0.031
Carnivores	combiIUCNthreatened:absHostMeanLat_c	0.012	0.045	-0.073	0.105
Primates	Intercept	0.569	0.175	0.236	0.912
Primates	combiIUCNthreatened	-0.542	0.217	-0.961	-0.122
Primates	logNumHostCitations_c	-0.169	0.159	-0.490	0.136
Primates	combiIUCNthreatened:logNumHostCitations_c	0.395	0.186	0.032	0.770
Ungulates	Intercept	-1.166	0.121	-1.408	-0.932
Ungulates	combiIUCNthreatened	-0.402	0.286	-0.968	0.162
Ungulates	logNumHostCitations_c	0.199	0.090	0.022	0.381
Ungulates	logHostSpeciesRange_c	0.080	0.065	-0.049	0.205
Ungulates	logGroupSizePriUng_c	0.124	0.034	0.055	0.191
Ungulates	logHostMass_c	0.167	0.090	-0.009	0.344
Ungulates	hostMaxLifespan_c	0.071	0.017	0.038	0.104
Ungulates	absHostMeanLat_c	0.020	0.004	0.012	0.028
Ungulates	combiIUCNthreatened:logNumHostCitations_c	-0.575	0.191	-0.950	-0.199
Ungulates	combiIUCNthreatened:logHostSpeciesRange_c	-0.310	0.090	-0.485	-0.137
Ungulates	combiIUCNthreatened:logGroupSizePriUng_c	0.056	0.073	-0.084	0.201