Table S2. Pseudo R^2 and Beta (β) estimates with upper and lower 95% CI for variables from best competing generalized linear models of richness, diversity and functional diversity for birds, small mammals and bats and all estimates from composite models (taxon combined). *A priori* models included a heterogeneity index and means (*m*) and variances (*v*) of grass biomass (grass), canopy cover (canopy) and shrub cover (shrub). Models included quadratic terms for curvilinear effects. Composite models included 4 variables (heterogeneity index, mean shrub and canopy plus a quadratic term). Beta estimates with 95% CI that did not include 0 are bold.

Taxa	scale	model (R^2)		β	lower CI	Upper CI
Bird Richness						
	Plot					
		19:canopy(m) + canopy(m)^2 + grass(m) + grass(v) (0.52)				
			grass(v)	0.119	0.086	0.152
			canopy(m)	0.551	0.461	0.641
			canopy(m)^2	-0.365	-0.452	-0.279
			grass(m)	-0.054	-0.100	-0.007
	Grid					
		2:heterogeneity (0.74)				
			heterogeneity	8.527	5.415	11.639
Small Mammal Richness						
	Plot					
		15:grass(m) + heterogeneity + shrub(m) + canopy(m) (0.24)				
			shrub(m)	0.078	-0.040	0.195
			heterogeneity	0.124	0.042	0.205
			grass(m)	0.134	0.032	0.236
			canopy(m)	0.229	0.103	0.355
	Grid					
		2:heterogeneity (0.28)				
			heterogeneity	0.272	0.126	0.419
Bat Richness						
	Plot	*2:heterogeneity* (0.07)				
			heterogeneity	0.121	0.055	0.186
		8:canopy(m) + canopy(m)^2 (0.09)				
			canopy(m)	0.354	0.125	0.583
			canopy(m)^2	-0.257	-0.484	-0.030
		5:shrub(m) + shrub(m)^2 (0.08)				
			shrub(m)	0.271	0.060	0.482
			shrub(m)^2	-0.159	-0.366	0.047
		6:srub(m) (0.07)				
			shrub(m)	0.115	0.050	0.181

4:shrub(v) + canopy(v) (0.08)				
	shrub(v)	0.052	-0.020	0.123
	canopy(v)	0.094	0.021	0.167
13:shrub(m) + heterogeneity + grass(m) (0.09)				
	shrub(m)	0.551	0.461	0.641
	heterogeneity	0.103	0.032	0.174
	grass(m)	-0.054	-0.100	-0.007
Grid				
8:canopy(m) + canopy(m)^2 (0.29*)*				
	canopy(m)	2.634	1.405	3.863
	canopy(m)^2	-2.128	-3.357	-0.898
Composite Richness				
Plot				
2:heterogeneity (0.248)				
	heterogeneity	0.308	0.245	0.371
8:canopy(m) + canopy(m)^2 (0.239*)*				
	canopy(m)	0.635	0.440	0.830
	canopy(m)^2	-0.353	-0.548	-0.157
6:srub(m) (0.220)				
	shrub(m)	0.291	0.231	0.350
Grid				
2:heterogeneity (0.452)				
	heterogeneity	0.566	0.399	0.733
8:canopy(m) + canopy(m)^2 (0.425*)*				
	canopy(m)	1.361	0.766	1.956
	canopy(m)^2	-0.961	-1.562	-0.361
6:srub(m) (0.357)				
	shrub(m)	0.508	0.354	0.662
Bird Diversity				
Plot				
19:canopy(m)+ canopy(m)^2+ grass(m) + grass(v) (0.51)				
	grass(v)	0.188	0.121	0.255
	canopy(m)	0.695	0.516	0.875
	canopy(m)^2	-0.478	-0.653	-0.303
	grass(m)	-0.185	-0.272	-0.098
Grid				
14:grass(m)+ grass(m)^2 + heterogeneity (0.73)				
	heterogeneity	0.388	0.275	0.501
	grass(m)	-0.494	-1.091	0.103
	grass(m)^2	0.186	-0.371	0.743

Small Mammal Diversity

Plot	*15:grass(m) + heterogeneity + shrub(m) + canopy(m)* (0.06)				
		grass(m)	0.044	-0.006	0.094
		heterogeneity	0.048	-0.003	0.100
		shrub(m)	0.085	0.020	0.150
		canopy(m)	0.108	0.042	0.174
Grid	*7:canopy(v)* (0.47)				
		canopy(v)	0.360	0.211	0.508
	2:heterogeneity (0.44)				
		heterogeneity	0.362	0.235	0.490
	22:canopy(m) + canopy(m)^2 + grass(v) (0.52)				
		canopy(m)	1.031	0.503	1.558
		canopy(m)^2	-0.722	-1.251	-0.192
		grass(v)	0.134	0.003	0.264
	8:canopy(m) + canopy(m)^2 (0.51)				
		canopy(m)	0.934	0.430	1.438
		canopy(m)^2	-0.624	-1.147	-0.102

Bats Diversity

Plot	*18:Shrub(m) + Shrub(m)^2 + heterogeneity* (0.26)				
		heterogeneity	0.111	0.052	0.170
		shrub(m)	0.145	-0.013	0.302
		shrub(m)^2	-0.100	-0.161	-0.040
	2:heterogeneity (0.24)				
		heterogeneity	0.153	0.111	0.195
	21:canopy(m) + canopy(m)^2 + heterogeneity (0.27)				
		heterogeneity	0.095	0.029	0.161
		canopy(m)	0.241	0.026	0.455
		canopy(m)^2	-0.206	-0.404	-0.009
Grid	*5:shrub(m) + shrub(m)^2* (0.64)				
		shrub(m)	0.496	0.281	0.712
		shrub(m)^2	-0.370	-0.586	-0.154

Composite Diversity

Plot					
	2:heterogeneity (0.292)				
		heterogeneity	0.395	0.146	0.645
	8:canopy(m) + canopy(m)^2 (0.292)				
		canopy(m)	0.990	0.803	1.178
		canopy(m)^2	-0.642	-0.831	-0.454
	6:srub(m) (0.239)				
		shrub(m)	0.407	0.350	0.464

Grid				
2:heterogeneity (0.625)				
	heterogeneity	0.661	0.504	0.819
8:canopy(m) + canopy(m)^2 (0.563*)*				
	canopy(m)	1.630	1.105	2.155
	canopy(m)^2	-1.110	-1.641	-0.579
6:srub(m) (0.529)				
	shrub(m)	0.607	0.465	0.749
Bird Functional Diversity				
Plot				
17:shrub(m) + grass(m) (0.46)				
	grass(m)	0.006	0.003	0.009
	shrub(m)	0.002	0.000	0.004
12:grass(m) (0.43)				
	grass(m)	0.005	0.002	0.007
14:grass(m)+ grass(m)^2 + heterogeneity (0.44)				
	grass(m)	0.000	-0.010	0.009
	grass(m)^2	0.005	-0.002	0.012
	heterogeneity	0.002	-0.007	0.010
16:shrub(m)+shrub(m)^2+grass(m)+heterogeneity (0.46)				
	grass(m)	0.006	0.003	0.009
	shrub(m)	0.007	-0.001	0.014
	shrub(m)^2	-0.005	-0.012	0.002
	heterogeneity	0.000	-0.003	0.003
11:grass(m)+ grass(m)2 (0.42)				
	grass(m)	0.000	-0.009	0.009
	grass(m)^2	0.004	-0.004	0.013
20:canopy(m) + canopy(m)^2 + grass(m) (0.37)				
	canopy(m)	0.004	-0.003	0.012
	canopy(m)^2	-0.003	-0.010	0.004
	grass(m)	0.006	0.003	0.009
Grid				
14:grass(m)+ grass(m)2 + heterogeneity (0.71)				
	Heterogeneity	0.011	0.008	0.015
	grass(m)	-0.016	-0.030	-0.001
	grass(m)2	0.008	-0.006	0.022
Small Mammal Functional Diversity				
Plot				
5:shrub(m)+shrub(m)^2 (0.15)				
	shrub(m)	0.050	0.030	0.069

		shrub(m)^2	-0.028	-0.047	-0.009
Grid					
	20:canopy(m) + canopy(m)^2 + grass(m) (0.44)				
		canopy(m)	-0.056	-0.109	-0.003
		canopy(m)^2	0.059	0.011	0.108
		grass(m)	0.021	0.004	0.037
Bat Functional Diversity					
Plot					
	21:canopy(m) + canopy(m)^2 + heterogeneity (0.27)				
		canopy(m)	-0.056	-0.109	-0.003
		canopy(m)^2	0.059	0.011	0.108
		heterogeneity	0.021	0.004	0.037
	3:shrub(v) (0.19)				
		shrub(v)	0.011	0.000	0.021
Grid	*2:heterogeneity* (0.60)				
		heterogeneity	0.048	0.029	0.067
	7:canopy(v) (0.52)				
		canopy(v)	0.047	-0.109	-0.003
	5:shrub(m) + shrub(m)^2 (0.59)				
		shrub(m)	0.136	0.065	0.206
		shrub(m)^2	-0.097	-0.168	-0.026
Composite Functional Diversity					
Plot					
	2:heterogeneity (0.219)				
		heterogeneity	0.149	0.086	0.212
	8:canopy(m) + canopy(m)^2 (0.210*)*				
		canopy(m)	0.205	0.007	0.402
		canopy(m)^2	-0.057	-0.255	0.141
	6:srub(m) (0.225)				
		shrub(m)	0.177	0.118	0.236
Grid					
	2:heterogeneity (0.443)				
		heterogeneity	0.623	0.458	0.788
	8:canopy(m) + canopy(m)^2 (0.463*)*				
		canopy(m)	1.584	1.027	2.141
		canopy(m)^2	-1.043	-1.604	-0.482
	6:srub(m) (0.374)				
		shrub(m)	0.581	0.425	0.737