

Supplementary Material 3 A1: 2018 Red deer posterior slopes for covariate fixed effects.

Parameter	Posterior mean	Posterior standard deviation
Artificial_surfaces	-1.90	1.21
Broad_Leaf	0.12	1.53
Conifer	0.04	1.41
InlandWater	-0.03	1.41
MixedForest	-0.05	1.49
Moors_Heathland	-0.64	1.38
NatGrassland	0.38	1.62
OpenSpaces	-0.18	1.64
Pasture	0.53	1.04
PeatBogs	4.01	1.52
PlantedVegetation	-2.15	1.26
Scrub	0.64	1.59

Supplementary Material 3 A2: 2012 Red deer posterior slopes for covariate fixed effects.

Parameter	Posterior mean	Posterior standard deviation
Artificial_surfaces	-1.82	1.2
Broad_Leaf	0.15	1.53
Conifer	0.41	1.46
InlandWater	0.14	1.52
MixedForest	0	1.5
Moors_Heathland	-0.64	1.4
NatGrassland	0.38	1.59
OpenSpaces	0.39	1.75
Pasture	-0.08	0.82
PeatBogs	2.13	1.08
PlantedVegetation	-0.34	1.22
Scrub	1.16	1.59

Supplementary Material 3 A3: 2006 Red deer posterior slopes for covariate fixed effects.

Parameter	Posterior mean	Posterior standard deviation
Artificial_surfaces	-1.9	1.2
Broad_Leaf	-0.01	1.51
Conifer	-0.24	1.37
InlandWater	-0.31	1.4
MixedForest	-0.06	1.49
Moors_Heathland	0.99	1.71
NatGrassland	1.09	1.79
OpenSpaces	1.17	2.06
Pasture	-1.77	0.85
PeatBogs	2.67	1.02
PlantedVegetation	-0.7	1.25
Scrub	1.13	1.53

Supplementary Material 3 A4: 2000 Red deer posterior slopes for covariate fixed effects.

Parameter	Posterior mean	Posterior standard deviation
Artificial_surfaces	-1.37	1.22
Broad_Leaf	0.07	1.52
Conifer	0.08	1.42
InlandWater	-0.32	1.43
MixedForest	0.06	1.51
Moors_Heathland	0.26	1.58
NatGrassland	2.75	1.66
OpenSpaces	0.42	1.55
Pasture	-1.95	0.95
PeatBogs	2.21	0.98
PlantedVegetation	-0.7	1.21
Scrub	-0.08	1.5

Supplementary Material 3 B1: 2018 Sika deer posterior slopes for covariate fixed effects.

Parameter	Posterior mean	Posterior standard deviation
Artificial_surfaces	-0.41	1.56
Broad_Leaf	0.46	2.08
Conifer	6.02	2.31
InlandWater	2.10	2.73
MixedForest	-0.12	2.00
Moors_Heathland	3.51	1.40
NatGrassland	1.63	2.27
OpenSpaces	0.68	2.15
Pasture	-2.46	0.82
PeatBogs	-1.66	1.14
PlantedVegetation	1.31	0.82
Scrub	-0.08	2.22

Supplementary Material 3 B2: 2012 Sika deer posterior slopes for covariate fixed effects.

Parameter	Posterior mean	Posterior standard deviation
Artificial_surfaces	-0.36	1.64
Broad_Leaf	0.59	2.05
Conifer	2.2	1.78
InlandWater	0.19	1.88
MixedForest	0.2	1.99
Moors_Heathland	4.07	1.48
NatGrassland	1.23	2.1
OpenSpaces	1.97	2.29
Pasture	-2.81	0.89
PeatBogs	-0.96	1.77
PlantedVegetation	-1.42	1.33
Scrub	0.27	1.91

Supplementary Material 3 B3: 2006 Sika deer posterior slopes for covariate fixed effects.

Parameter	Posterior mean	Posterior standard deviation
Artificial_surfaces	-0.44	1.8
Broad_Leaf	0.45	2.03
Conifer	2.63	1.61
InlandWater	-0.21	1.99
MixedForest	-0.11	1.91
Moors_Heathland	1.74	1.99
NatGrassland	-0.7	1.89
OpenSpaces	0.79	2.31
Pasture	-2.61	0.96
PeatBogs	2.43	1.2
PlantedVegetation	-1	1.22
Scrub	0.3	1.76

Supplementary Material 3 B4: 2000 Sika deer posterior slopes for covariate fixed effects.

Parameter	Posterior mean	Posterior standard deviation
Artificial_surfaces	-0.78	1.93
Broad_Leaf	0.27	2.03
Conifer	-0.09	1.8
InlandWater	-0.64	1.88
MixedForest	0.14	1.99
Moors_Heathland	-0.8	1.86
NatGrassland	0.91	2
OpenSpaces	1.11	2.28
Pasture	-2.3	1.12
PeatBogs	3.29	1.16
PlantedVegetation	-1.6	1.41
Scrub	1.5	2.07

Supplementary Material 3 C1: 2018 Fallow deer posterior slopes for covariate fixed effects.

Parameter	Posterior mean	Posterior standard deviation
Artificial_surfaces	1.62	1.36
Broad_Leaf	0.65	2.99
Conifer	7.58	2.15
InlandWater	0.00	3.35
MixedForest	1.49	3.05
Moors_Heathland	0.58	2.59
NatGrassland	-0.34	2.91
OpenSpaces	-0.93	2.78
Pasture	1.06	1.03
PeatBogs	-2.03	1.78
PlantedVegetation	-5.32	2.63
Scrub	6.17	2.30

Supplementary Material 3 C2: 2012 Fallow deer posterior slopes for covariate fixed effects.

Parameter	Posterior mean	Posterior standard deviation
Artificial_surfaces	-1.66	1.02
Broad_Leaf	-0.18	2.37
Conifer	0.49	2.98
InlandWater	9.39	2.32
MixedForest	0.36	3.85
Moors_Heathland	0.66	3.02
NatGrassland	1.31	2.54
OpenSpaces	-0.06	2.97
Pasture	-0.73	2.93
PeatBogs	1.42	1.15
PlantedVegetation	-2.49	2
Scrub	-6.92	2.54

Supplementary Material 3 C3: 2006 Fallow deer posterior slopes for covariate fixed effects.

Parameter	Posterior mean	Posterior standard deviation
Artificial_surfaces	-1.8	1.09
Broad_Leaf	1.19	1.83
Conifer	0.83	3.05
InlandWater	7.04	1.82
MixedForest	0.89	4.31
Moors_Heathland	2.92	3.85
NatGrassland	-0.45	2.95
OpenSpaces	-1.41	2.77
Pasture	-1.13	2.78
PeatBogs	0.77	1.29
PlantedVegetation	-0.14	1.98
Scrub	-8.27	2.35

Supplementary Material 3 C4: 2000 Fallow deer posterior slopes for covariate fixed effects.

Parameter	Posterior mean	Posterior standard deviation
Artificial_surfaces	-2.89	2.4
Broad_Leaf	-0.03	2.99
Conifer	8.5	1.93
InlandWater	0.04	3.13
MixedForest	0.51	3.04
Moors_Heathland	-1.46	2.61
NatGrassland	-0.27	2.83
OpenSpaces	-0.24	2.95
Pasture	2.28	1.2
PeatBogs	-0.49	2.03
PlantedVegetation	-6.14	2.17
Scrub	4.63	2.92