Part 5 - Supplementary Information

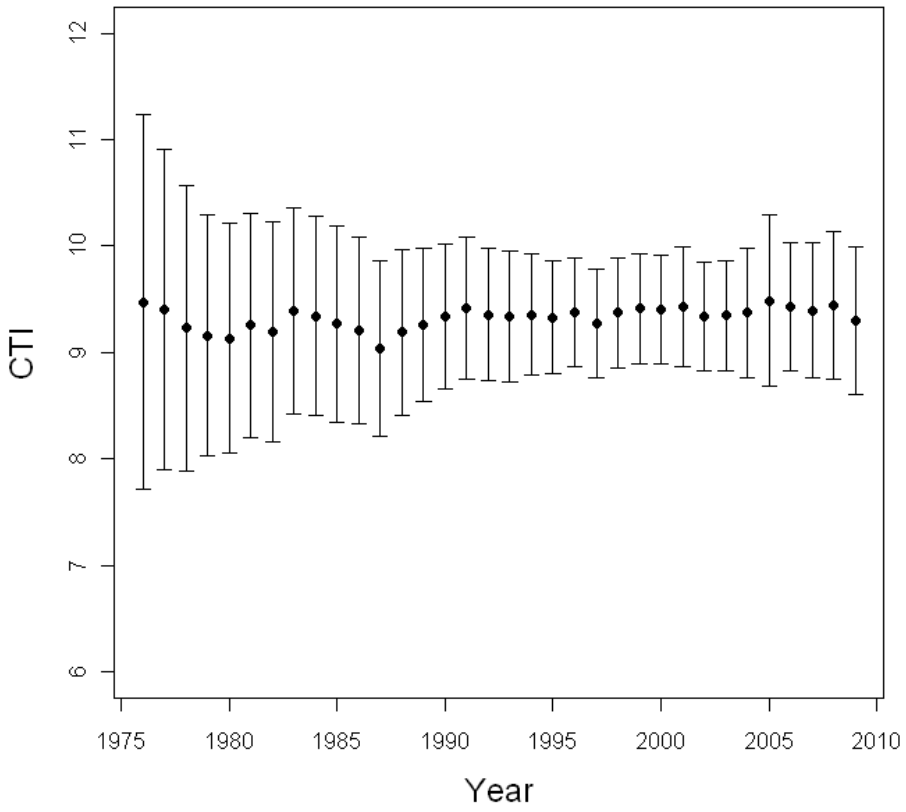


Figure S1: Change in the community temperature index (CTI) over time for British butterflies. Plotted are the mean CTI scores across sites for each year, with the bars representing standard errors about the means.

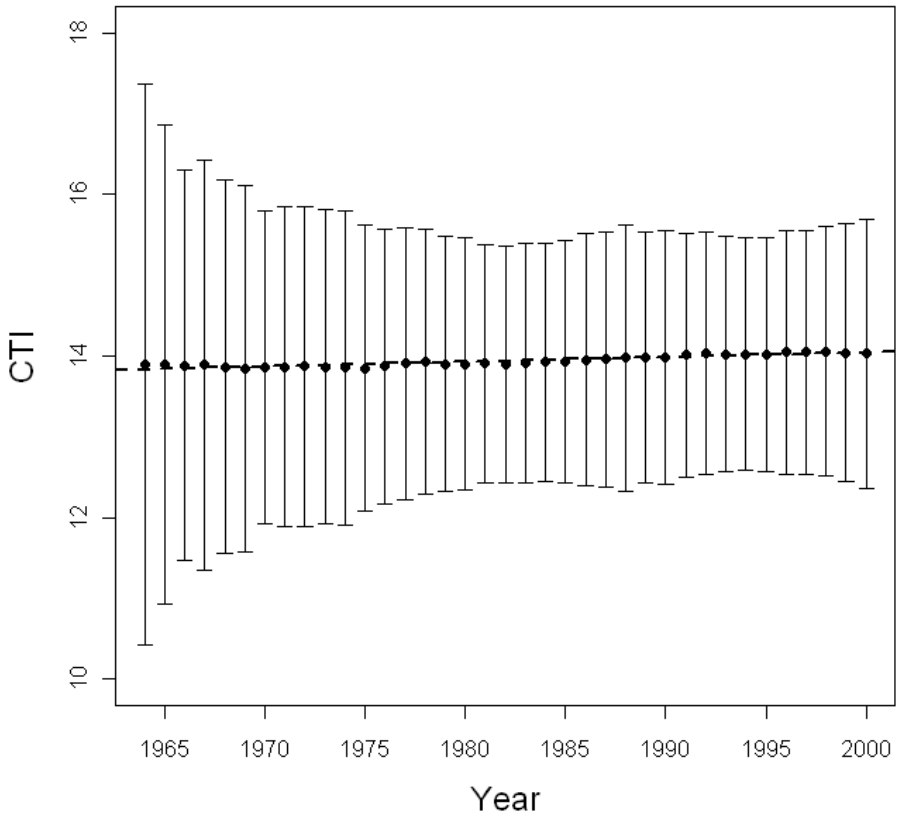
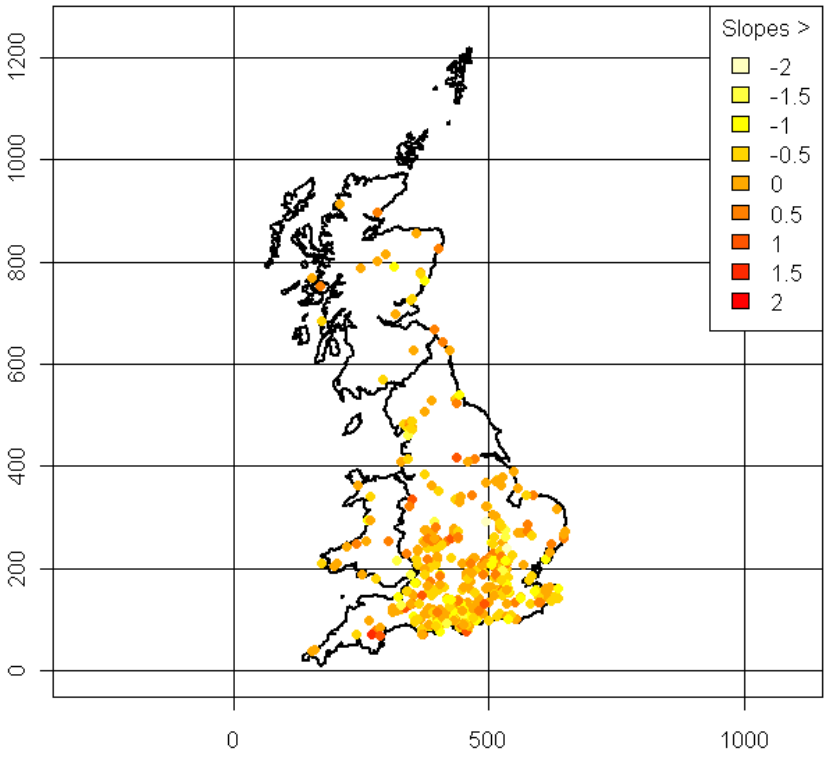
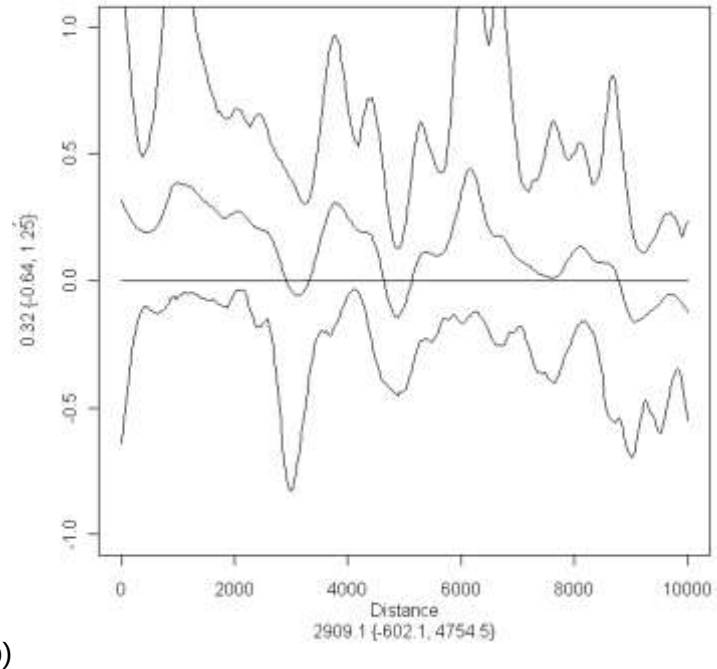


Figure S2: Change in the community temperature index (CTI) over time for British birds. Plotted are the mean CTI scores across sites for each year, with the bars representing standard errors about the means.

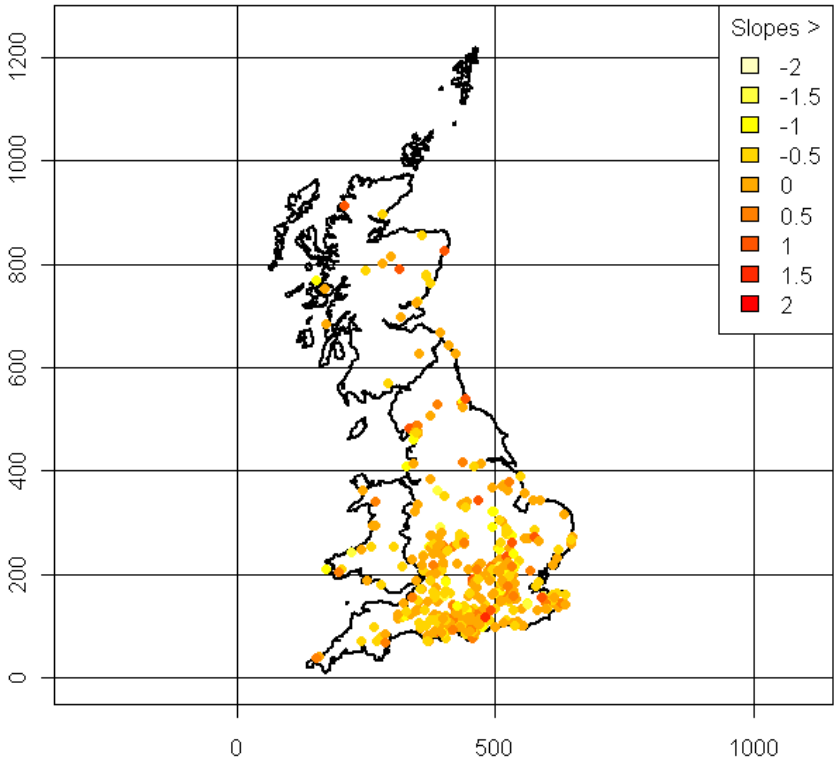


a)

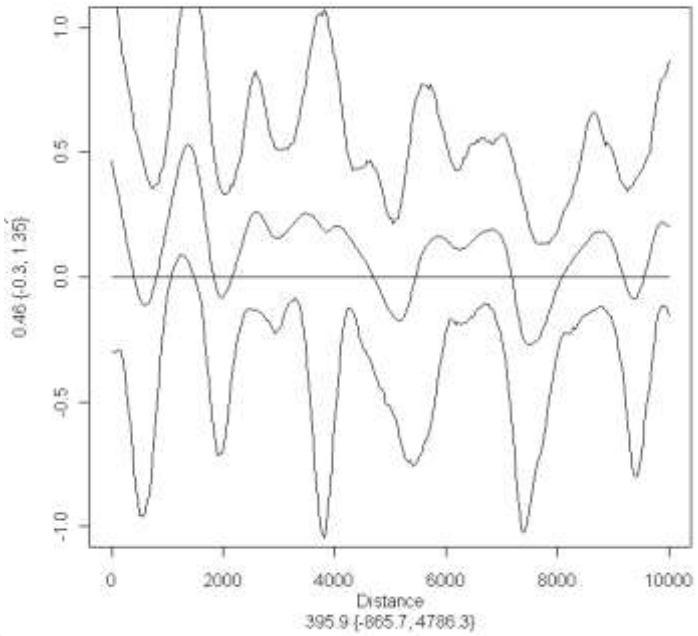


b)

Figure S3: Spatial pattern for trends in abundance over time (random slopes from mixed model) for low STI butterfly species (panel a). The superimposed grid is in km units. A correlogram shows that there is little evidence of spatial autocorrelation in abundance trends over time.

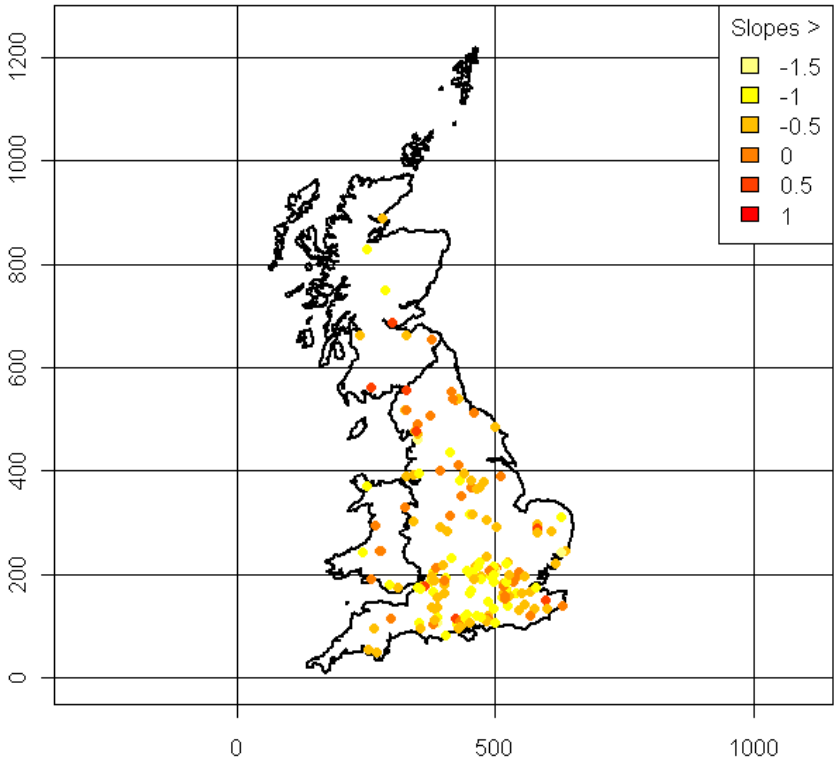


a)

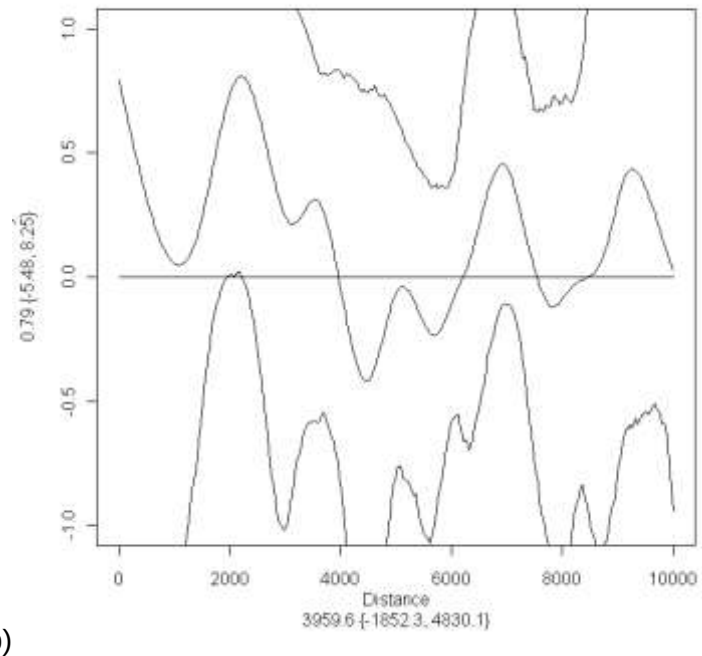


b)

Figure S4: Spatial pattern for trends in abundance over time (random slopes from mixed model) for high STI butterfly species (panel a). The superimposed grid is in km units. A correlogram shows that there is little evidence of spatial autocorrelation in abundance trends over time.

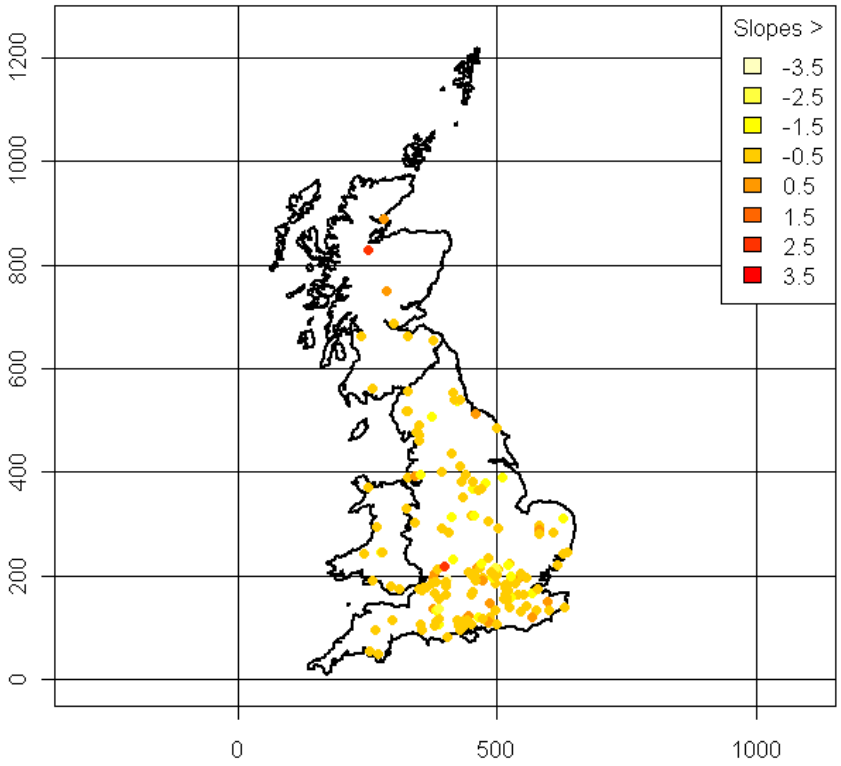


a)

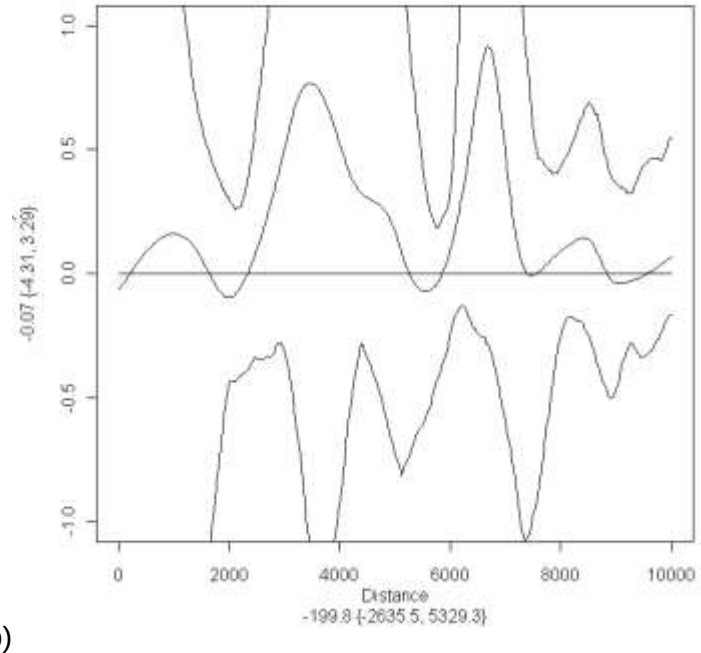


b)

Figure S5: Spatial pattern for trends in abundance over time (random slopes from mixed model) for low STI bird species (panel a). The superimposed grid is in km units. A correlogram shows that there is little evidence of spatial autocorrelation in abundance trends over time.



a)



b)

Figure S5: Spatial pattern for trends in abundance over time (random slopes from mixed model) for high STI bird species (panel a). The superimposed grid is in km units. A correlogram shows that there is little evidence of spatial autocorrelation in abundance trends over time.

Table S1: Broad habitat types used to calculate habitat heterogeneity.

Broad habitat	
Arable	A
Bare ground and quarries	BgRo
Bracken	Br
Broadleaved woodland	BW
Coastal	C
Coniferous woodland	CW
Fen	F
Grassland	G
Heath	H
Inland water	R
Montane	M
Urban/ suburban garden Sea	UG S

Table S2: Pearson's correlations between landscape variables (at 0.5km radius) around UKBMS sites.

	Shan.LCM.habitat.all	shannon.soil	DEM_MEAN	SLOPE_MEAN	SLOPE_STD	NORTHNESS_MEAN	NORTHNESS_STD	prop.semi.natural
Shan.LCM.habitat.all	1	0.05	-0.10	0.09	0.10	-0.09	0.03	0.28
shannon.soil	0.05	1	-0.02	0.00	0.03	0.08	0.01	0.12
DEM_MEAN	-0.10	-0.02	1	0.43	-0.08	0.06	0.08	0.25
SLOPE_MEAN	0.09	0.00	0.43	1	0.70	-0.03	0.09	0.46
SLOPE_STD	0.10	0.03	-0.08	0.70	1	-0.03	0.01	0.34
NORTHNESS_MEAN	-0.09	0.08	0.06	-0.03	-0.03	1	0.01	-0.04
NORTHNESS_STD	0.03	0.01	0.08	0.09	0.01	0.01	1	0.05
prop.semi.natural	0.28	0.12	0.25	0.46	0.34	-0.04	0.05	1

Table S3: Pearson's correlations between landscape variables (at 0.5km radius) around CBC sites.

	Shan.LCM.habitat.all	shannon.soil	DEM_MEAN	SLOPE_MEAN	SLOPE_STD	NORTHNESS_MEAN	NORTHNESS_STD	prop.semi.natural
Shan.LCM.habitat.all	1	0.16	-0.12	0.10	0.18	0.15	0.16	0.21
shannon.soil	0.16	1	-0.09	0.03	0.13	0.19	0.06	0.08
DEM_MEAN	-0.12	-0.09	1	0.58	0.27	-0.05	-0.10	0.32
SLOPE_MEAN	0.10	0.03	0.58	1	0.80	-0.01	-0.02	0.49
SLOPE_STD	0.18	0.13	0.27	0.80	1	-0.01	-0.10	0.43
NORTHNESS_MEAN	0.15	0.19	-0.05	-0.01	-0.01	1	0.20	0.15
NORTHNESS_STD	0.16	0.06	-0.10	-0.02	-0.10	0.20	1	0.08
prop.semi.natural	0.21	0.08	0.32	0.49	0.43	0.15	0.08	1