

Supplementary Materials

Tables

Table S1. Threat parameter settings for estimating habitat quality.

Threat	Maximum Distance	Weight	Decay Type
Bare lands	3	0.2	exponential
Built-up lands	8	1	exponential
Cultivated lands	5	0.7	linear

Table S2. The sensitivity parameter settings of habitat types to threat factors.

Land cover/use	Habitat suitability	Bare lands	Built-up lands	Cultivated lands
Agricultural Habitat (AH)	0.4	0.25	0.3	0
Forest Habitat (FH)	1	0.8	0.8	0.6
Grassland Habitat (GH)	0.6	0.5	0.5	0.35
Wetland Habitat (WH)	0.8	0.5	0.6	0.6
Urban Fabric (UF)	0	0	0	0
Shrubland Habitat (SH)	0.6	0.5	0.5	0.35
Vacant Land (VL)	0	0	0	0
Water (WA)	1	0.3	0.7	0.4

Table S3. Entropy results summary for local bivariate analysis.

BTH								
	HQ-SHII		HQ-PM2.5		HQ-RS		HQ-NDVI	
	Entropy	p-value	Entropy	p-value	Entropy	p-value	Entropy	p-value
Min	0.2874	0.005	0.1979	0.005	0.1144	0.005	0.3902	0.005
Max	1.4355	1	1.4399	1	0.9612	1	1.6529	1
Mean	0.7624	0.2503	0.6402	0.3084	0.4386	0.4587	0.8777	0.2153
Median	0.7407	0.12	0.6133	0.215	0.4084	0.33	0.862	0.085
GBA								
	HQ-SHII		HQ-PM2.5		HQ-RS		HQ-NDVI	
	Entropy	p-value	Entropy	p-value	Entropy	p-value	Entropy	p-value
Min	0.495	0.005	0.331	0.005	0.1957	0.005	0.4915	0.005
Max	1.3889	0.995	1.3962	1	1.2376	1	1.5275	1
Mean	0.9156	0.1021	0.8404	0.3223	0.592	0.4868	1.0336	0.1662
Median	0.9126	0.015	0.8271	0.23	0.5875	0.44	1.0229	0.055
YRD								
	HQ-SHII		HQ-PM2.5		HQ-RS		HQ-NDVI	
	Entropy	p-value	Entropy	p-value	Entropy	p-value	Entropy	p-value
Min	0.2993	0.005	0.131	0.005	0.0784	0.005	0.3775	0.005
Max	1.5046	1	1.2774	1	1.0112	1	1.6828	1
Mean	0.8662	0.1593	0.7536	0.3047	0.5106	0.29	0.971	0.1526
Median	0.8802	0.04	0.7442	0.205	0.5118	0.065	0.9765	0.035

Figures

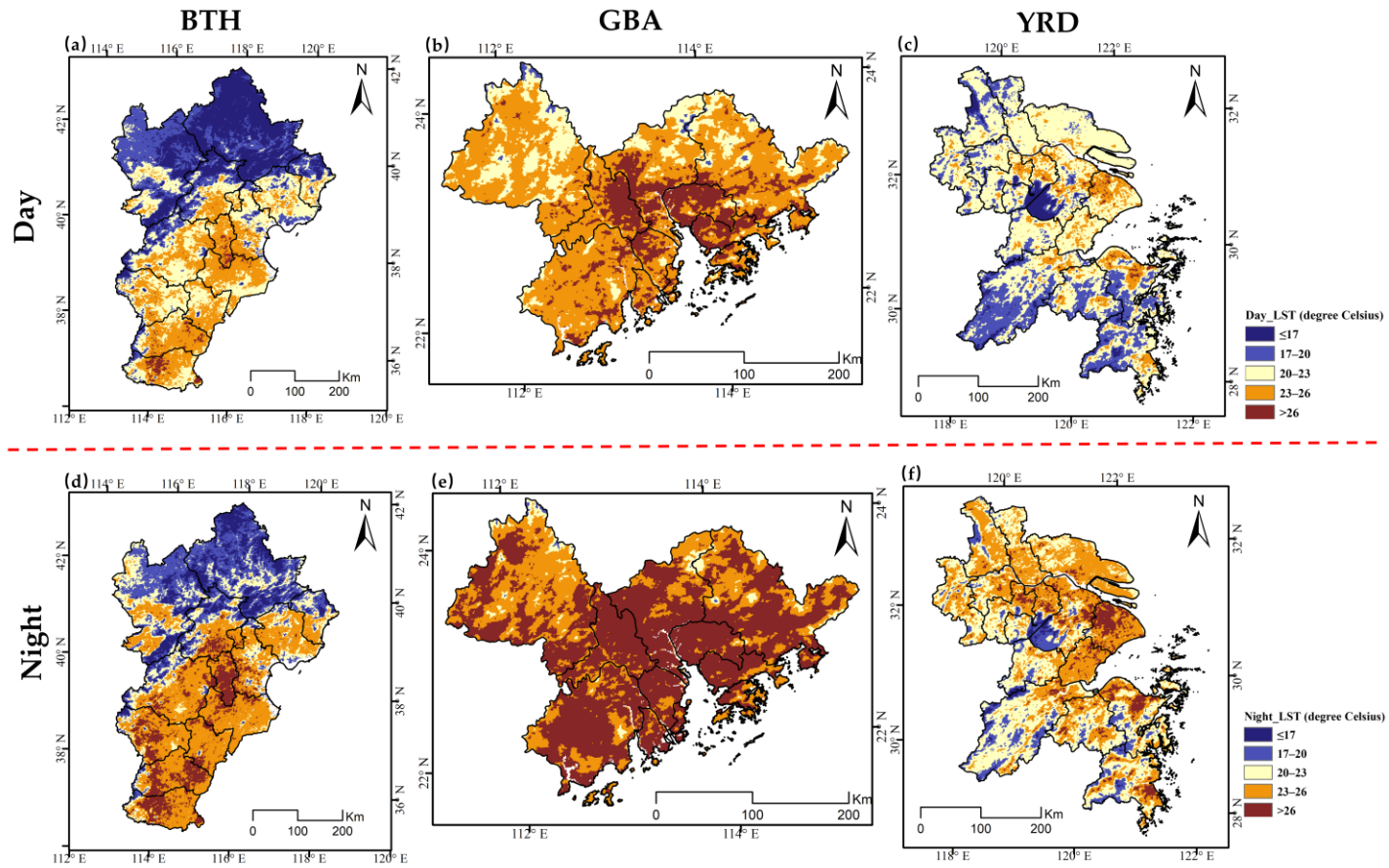


Figure S1. Spatial stratification of the land surface temperature (LST) in the three UAs.

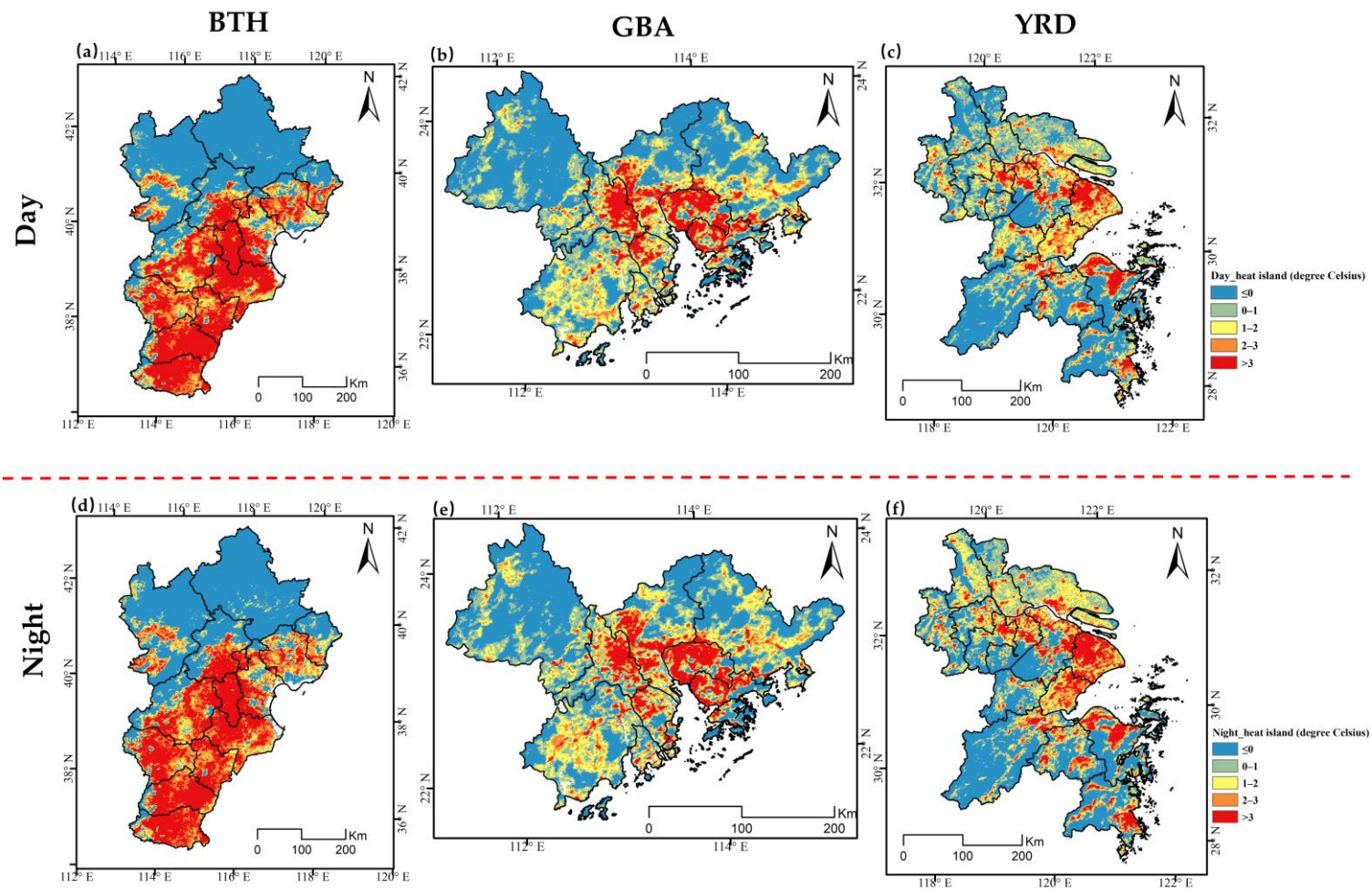


Figure S2. Spatial stratification of the surface heat island in the three UAs.

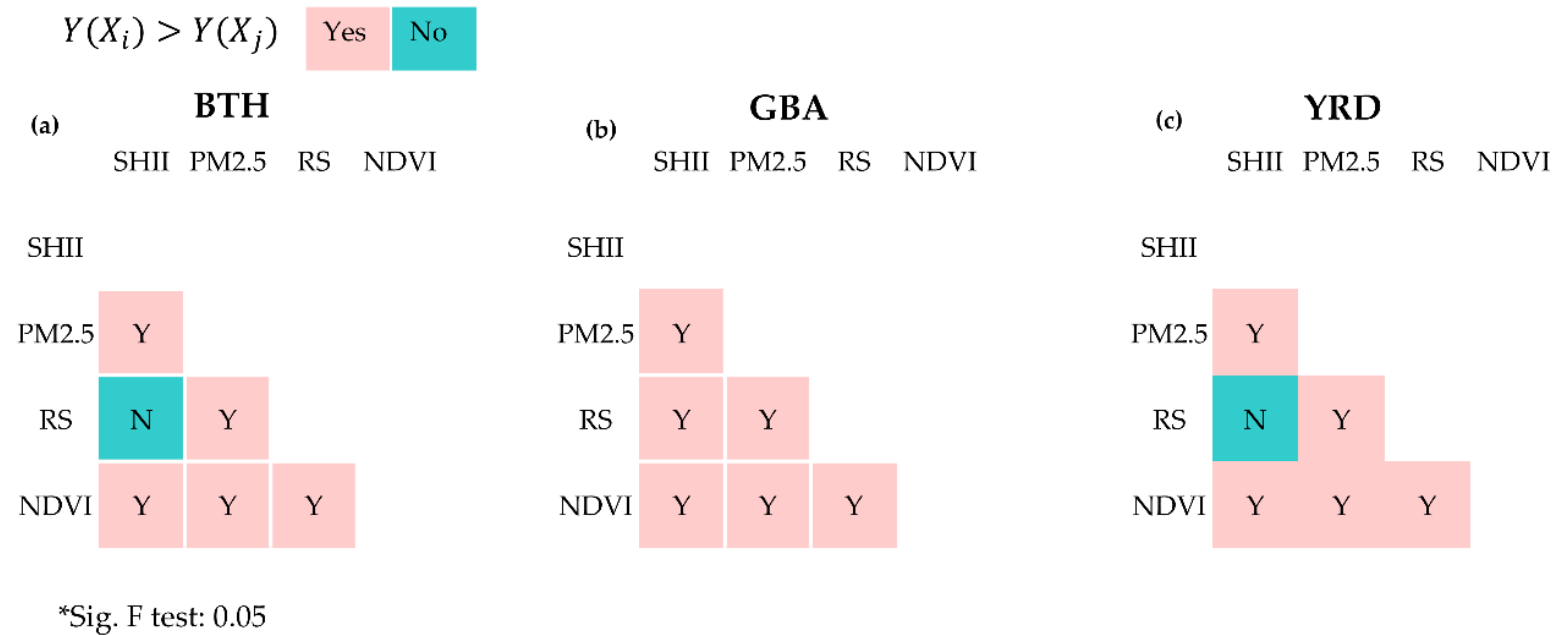
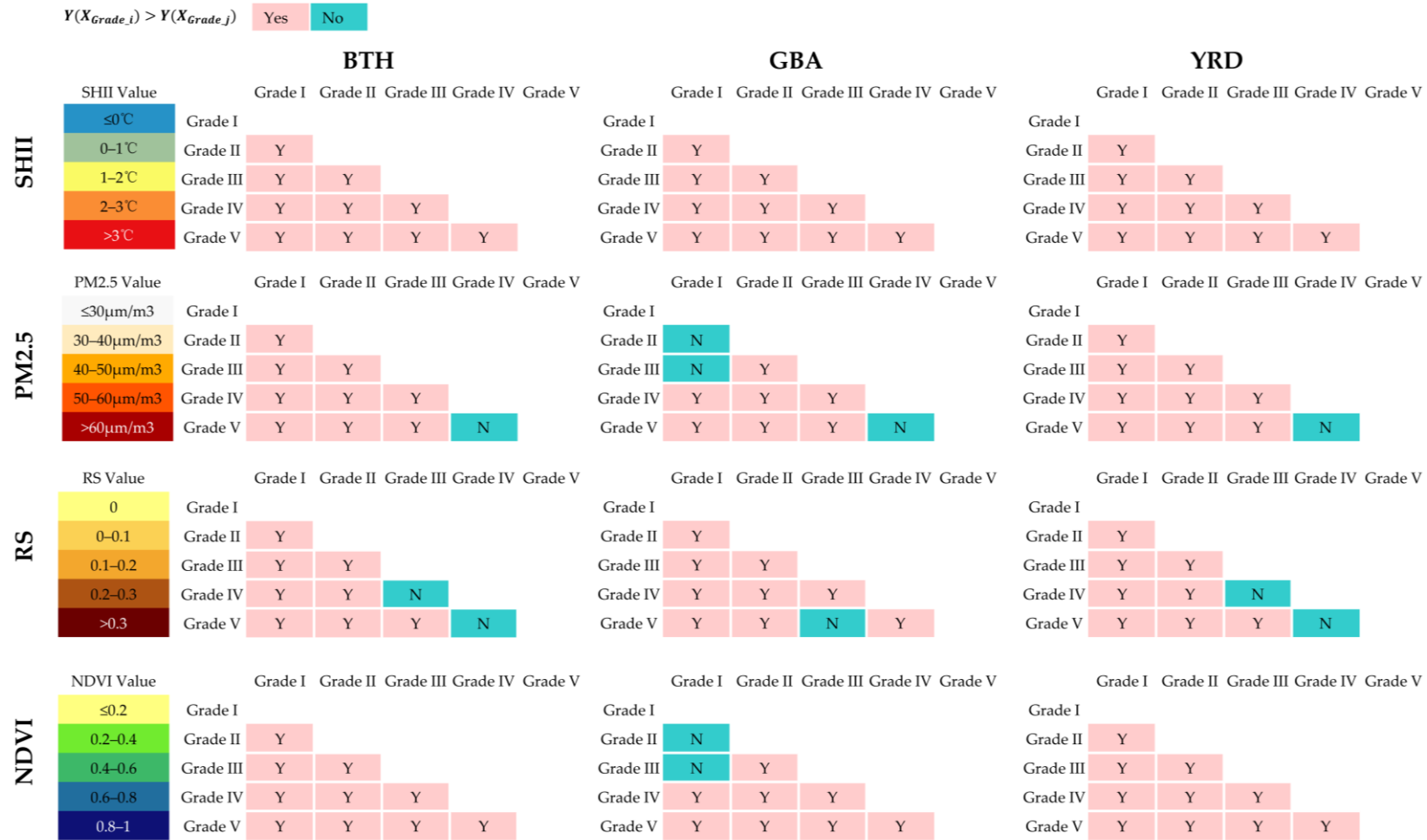


Figure S3. Results for ecological detector module.

Note: Ecological detector results presented the statistically significant differences between the influences of two environmental states on habitat quality. If $Y(X_i)$ (environmental states in the row) was significantly greater than $Y(X_j)$ (environmental states in the column), the corresponding value was given as “Y(Yes)”, while “N(No)” indicated the opposite meaning.



*Sig. F test: 0.05

Figure S4. Results for risk detector module.