SUPPLEMENTARY INFORMATTION

Predictability of temporal variation in climate and the evolution of seasonal polyphenism in tropical butterfly communities

Table S1: Effective degrees of freedom from GAM models for males and females from species from Zomba.

Species	Sex	EDF	F value	P value
B. campina	Male	8.748	81.69	<0.001
B. campina	Female	8.776	89.03	<0.001
B. ena	Male	8.336	29.74	<0.001
B. ena	Female	8.767	42.79	<0.001
B. safitza	Male	8.912	145.71	<0.001
B. safitza	Female	8.930	205.45	<0.001
Me. leda	Male	8.646	38.49	<0.001
Me. leda	Female	8.593	24.7	<0.001

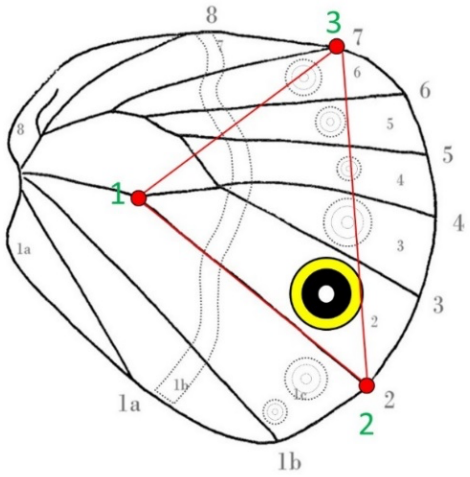

Figure S1: Traits measured on the ventral hind wing. The triangular area within the three landmarks was used as a proxy for hindwing area and was used to calculate the relative area of the eyespot size as an area of the CuA1 eyespot (using the yellow ring as the outer element of the eyespot).

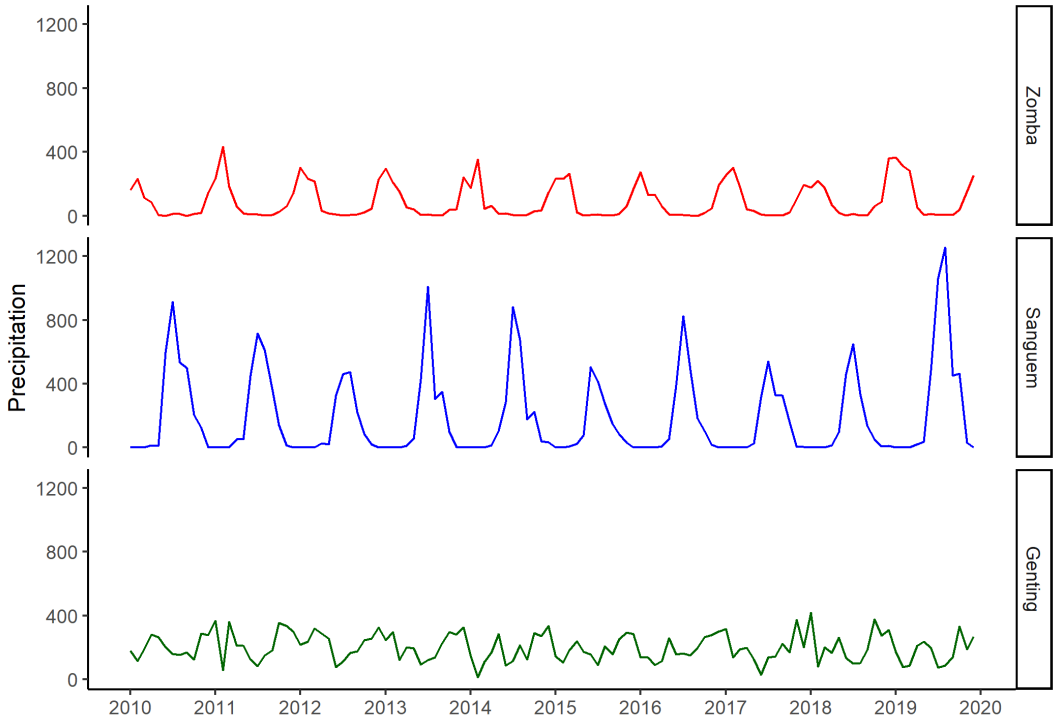

Figure S2: Short time series (2010-2019) depicting seasonal variation in precipitation for all three locations.

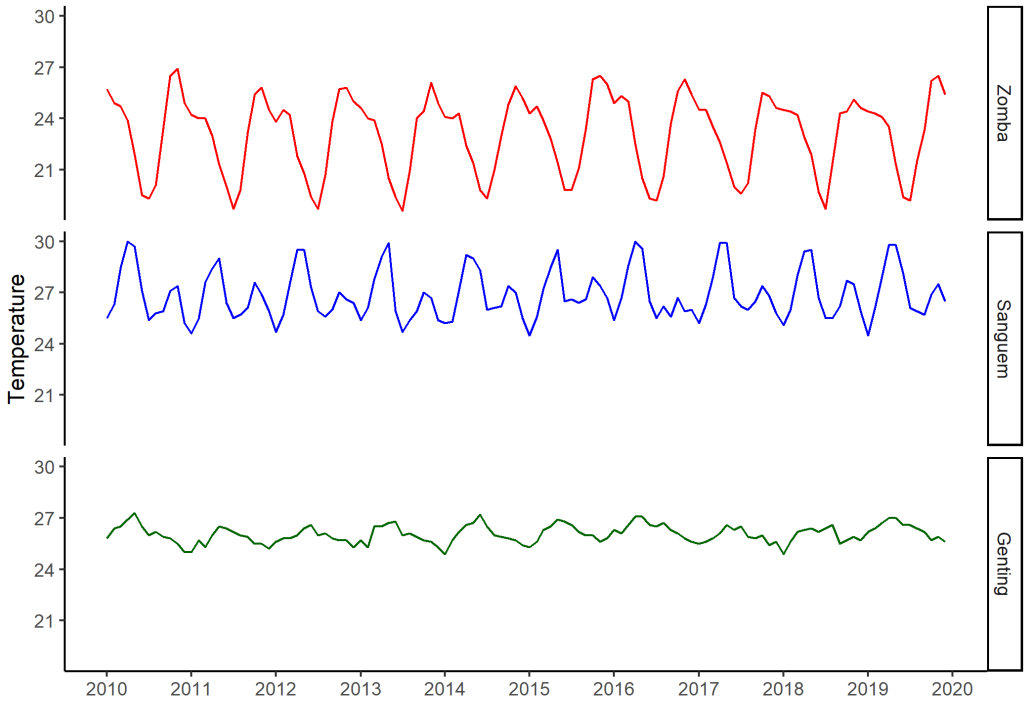

Figure S3: Short time series (2010-2019) depicting seasonal variation in temperature for all three locations.

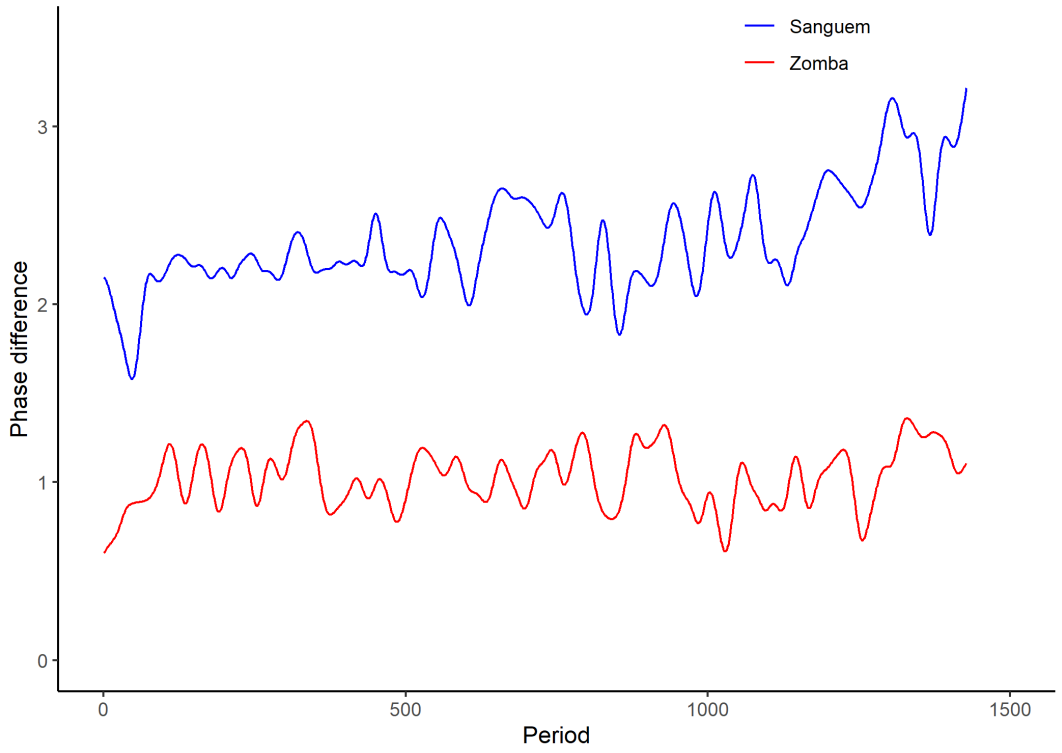

Figure S5: Phase difference between temperature and precipitation across the time series for Zomba and Sanguem.

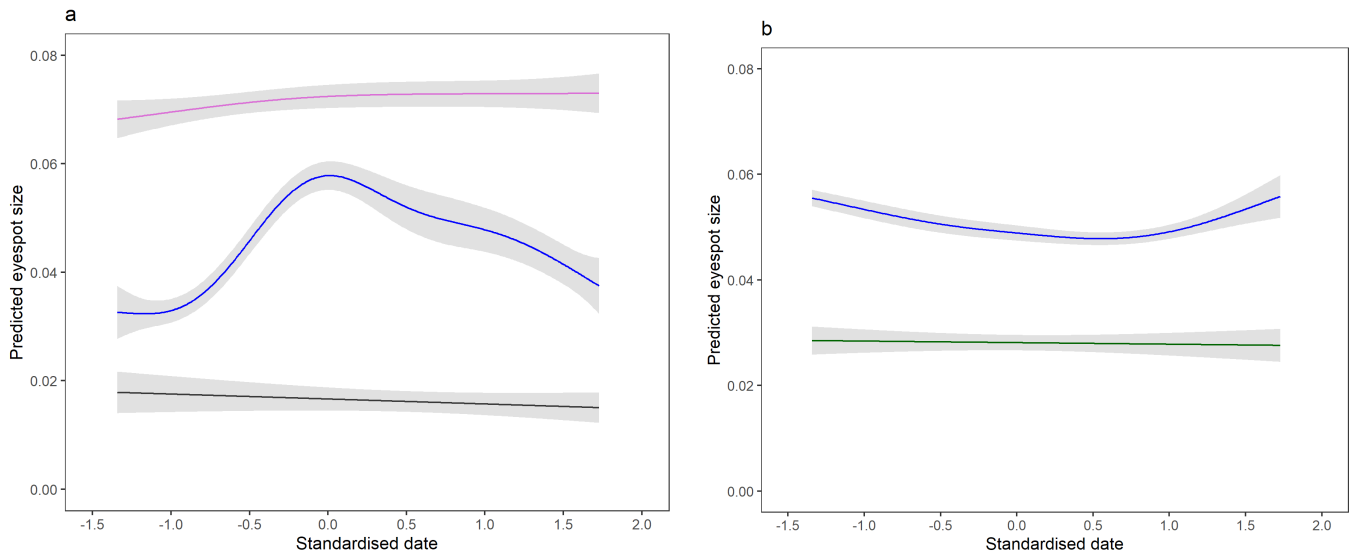

Figure S6: Variation in the eyespot size in species from Genting during (a) 2012-13 (blue - *My. intermedia*; grey - *C. mnasicles*, pink - *My. orseis*) and (b) 2018-19 (blue - *My. intermedia*; green- *T. janardana*) sampling. Values on the Y-axis are predicted eyespot size from GAM analysis.