

Additional file 2: Principal component analyses of reaction norm data. Table gives the first two principal components (PC1 and PC2) of nine wing pattern measurements and the percentage of variation explained by each principal component. PC1 explained over 55% of the variation in the data in all species and was associated with seasonality.

Trait	Element	<i>B. anynana</i>		<i>B. safitza</i>		<i>M. mineus</i>		<i>M. perseoides</i>		<i>H. iboina</i>	
		PC1	PC2	PC1	PC2	PC1	PC2	PC1	PC2	PC1	PC2
VFW WhiteArea M1	(1w)	-0.247	0.130	0.320	0.004	-0.236	-0.205	0.107	-0.311	-0.343	0.085
VFW BlackArea M1	(1b)	-0.317	0.503	0.383	0.161	-0.410	-0.024	0.412	-0.016	-0.389	0.106
VFW YellowArea M1	(1y)	-0.374	0.342	0.393	0.090	-0.417	0.025	0.413	0.015	-0.389	0.076
VFW BlackArea Cu1	(2b)	-0.243	-0.085	0.122	0.636	-0.409	-0.039	0.403	-0.028	-0.339	-0.089
VFW Band	(3)	-0.299	-0.548	0.265	-0.525	-0.179	0.625	-0.027	0.682	-0.050	-0.754
VHW WhiteArea Cu1	(4w)	-0.371	-0.124	0.357	0.001	-0.222	-0.421	0.380	-0.085	-0.357	-0.009
VHW BlackArea Cu1	(4b)	-0.390	0.127	0.386	0.168	-0.396	-0.119	0.407	0.027	-0.393	0.093
VHW YellowArea Cu1	(4y)	-0.411	0.049	0.394	0.098	-0.406	-0.044	0.409	0.064	-0.397	0.075
VHW Band	(5)	-0.303	-0.522	0.283	-0.498	-0.181	0.609	0.089	0.652	-0.153	-0.621
Proportion of Variance		0.548	0.144	0.665	0.152	0.600	0.190	0.623	0.205	0.631	0.153
Cumulative Proportion		0.548	0.692	0.665	0.817	0.600	0.790	0.623	0.827	0.631	0.784