

Table S5. Basic statistics on $\sin \alpha$ and $\cos \alpha$ (SD = standard deviation; SW p = p-value in Shapiro-Wilk test, where ^N indicates normal distribution).

Group	N	$\sin \alpha$					$\cos \alpha$				
		Mean	Min	Max	SD	SW p	Mean	Min	Max	SD	SW p
All samples	794	0.644	-1.000	1.000	0.538	0.00	-0.024	-1.000	1.000	0.544	0.00
<i>Betula pendula</i>	36	0.932	0.544	1.000	0.093	0.00	0.151	-0.600	0.839	0.321	1.00 ^N
<i>Fagus sylvatica</i>	34	0.406	-0.994	1.000	0.737	0.00	0.083	-0.996	0.995	0.557	0.46 ^N
<i>Ficus retusa</i>	36	0.883	0.502	0.998	0.123	0.00	-0.401	-0.865	-0.067	0.213	0.13 ^N
<i>Fraxinus ornus</i>	29	0.526	-0.928	1.000	0.567	0.00	-0.513	-1.000	0.676	0.394	0.03
<i>Lamium album</i>	35	0.588	0.189	0.970	0.188	0.36 ^N	0.765	0.243	0.982	0.190	0.00
<i>Lupinus polyphyllus</i>	37	0.895	0.341	1.000	0.134	0.00	0.164	-0.738	0.940	0.398	0.72 ^N
<i>Oemleria cerasiformis</i>	32	0.717	-0.743	1.000	0.426	0.00	0.084	-0.970	0.999	0.559	0.24 ^N
<i>Plantago lanceolata</i>	29	0.874	-0.415	0.998	0.267	0.00	-0.231	-0.910	0.647	0.343	0.94 ^N
<i>Plantago major</i>	28	0.608	-0.970	1.000	0.650	0.00	-0.007	-0.806	0.995	0.481	0.43 ^N
<i>Robinia pseudoacacia</i>	31	0.783	0.115	0.988	0.208	0.00	0.544	0.154	0.993	0.226	0.67 ^N
<i>Rosa arvensis</i> - shady	33	0.229	-0.991	1.000	0.798	0.00	0.209	-0.997	0.956	0.543	0.03
<i>Rosa arvensis</i> - sunny	29	0.482	-1.000	1.000	0.626	0.00	0.172	-0.993	0.991	0.611	0.08 ^N
<i>Salix pentandra</i>	28	0.739	-0.829	0.993	0.434	0.00	0.034	-0.997	0.959	0.530	0.27 ^N
<i>Secale cereale</i>	30	0.942	0.643	1.000	0.070	0.00	-0.240	-0.765	0.464	0.227	0.13 ^N
<i>Sorbus aucuparia</i>	34	0.903	0.463	1.000	0.099	0.00	0.381	-0.006	0.886	0.175	0.36 ^N
<i>Syringa × chinensis</i>	38	0.745	-0.974	1.000	0.488	0.00	-0.259	-0.972	0.683	0.387	0.09 ^N
<i>Syringa × prestoniae</i>	37	0.835	-0.565	1.000	0.306	0.00	-0.221	-0.999	0.520	0.409	0.60 ^N
<i>Syringa josikaea</i>	30	0.775	-0.382	1.000	0.400	0.00	-0.248	-0.982	0.664	0.436	0.70 ^N
<i>Syringa meyeri</i>	35	0.750	-0.679	1.000	0.393	0.00	-0.400	-0.999	0.248	0.363	0.16 ^N
<i>Syringa vulgaris</i>	32	-0.001	-0.994	0.998	0.710	0.00	0.442	-0.970	0.999	0.571	0.00
<i>Trifolium repens</i>	36	0.476	-0.999	1.000	0.718	0.00	-0.121	-0.995	0.880	0.515	0.30 ^N
<i>Vinca minor</i> - current year	39	0.317	-0.999	1.000	0.727	0.00	-0.078	-0.999	1.000	0.623	0.06 ^N
<i>Vinca minor</i> - previous year	31	0.259	-0.992	1.000	0.657	0.00	-0.408	-0.999	1.000	0.600	0.00
<i>Wisteria floribunda</i>	35	0.759	-0.394	1.000	0.342	0.00	-0.469	-0.992	0.116	0.305	0.04