

Table S5. Climatic envelopes for modern plant taxa

Taxa*	MAT (°C) [†]	σ	WMT (°C) [†]	σ	CMT (°C) [†]	σ
<i>Acer</i>	9.0	2.5	22.2	3.2	-2.3	4.0
<i>Acrostichum</i>	24.8	2.6	31.8	2.5	17.0	4.1
<i>Ailanthus</i>	17.8	4.5	29.7	3.4	4.7	7.7
<i>Alchloanea</i>	21.7	3.7	29.8	3.4	13.0	5.7
<i>Allophylus</i>	23.4	3.6	31.0	3.6	15.3	4.8
<i>Alnus</i>	8.4	2.6	21.0	2.7	-2.1	3.9
Apocynaceae	8.5	4.5	27.6	3.9	-9.0	7.1
Arecaceae	22.3	4.5	30.7	3.8	13.6	6.1
<i>Astronium</i>	24.3	2.4	31.8	2.3	16.2	3.7
Bignoniaceae	21.2	4.6	30.6	3.9	11.3	7.0
<i>Caesalpinia</i>	23.1	3.7	31.7	3.5	13.9	5.6
<i>Cardiospermum</i>	22.5	3.5	31.7	3.4	12.3	5.6
<i>Ceratophyllum</i>	9.8	3.1	22.6	3.1	-1.1	4.0
<i>Cladastris</i>	15.0	5.0	29.6	3.4	0.0	7.8
<i>Cnemidaria</i>	22.3	3.3	28.7	3.5	16.1	3.5
Cycadaceae	25.3	2.8	33.5	2.6	15.2	4.3
<i>Dalbergia</i>	23.2	3.5	31.4	3.1	14.4	5.6
<i>Dendropanax</i>	21.4	4.0	29.5	3.9	13.0	5.7
<i>Dipteronia</i>	13.3	3.1	28.3	2.9	-2.7	5.3
Malvaceae	20.7	3.4	29.6	3.6	10.2	5.1
<i>Elaeocarpus</i>	16.7	5.3	26.0	4.4	6.8	6.2
<i>Equisetum</i>	7.7	3.5	20.6	3.3	-3.4	5.3
<i>Fraxinus</i>	9.2	2.0	21.5	3.1	-0.9	3.0
<i>Glyptostrobus</i>	20.4	2.2	31.9	1.7	8.0	4.2
<i>Gymnocladus</i>	12.8	3.0	31.5	2.1	-6.1	4.5
<i>Hovenia</i>	15.7	3.0	30.4	2.4	0.7	4.1
<i>Hydrangea</i>	14.6	4.8	26.9	4.4	2.1	8.0
Juglandaceae	12.3	4.1	26.8	3.8	-0.7	6.0
Lauraceae	18.8	4.6	28.3	3.8	8.8	6.4
<i>Lindera</i>	15.0	4.6	28.8	3.4	0.8	7.3
<i>Lygodium</i>	22.8	4.4	31.5	3.1	13.5	7.2
Magnoliaceae	16.5	5.2	28.7	3.7	3.7	9.2
Menispermaceae	21.2	4.8	30.5	3.9	10.8	7.3
<i>Nymphaea</i>	10.4	5.9	22.5	4.8	-0.2	7.0
<i>Philodendron</i>	22.9	3.6	29.8	3.4	16.1	4.9
<i>Pinus</i>	9.4	4.0	23.4	4.4	-2.2	5.2
<i>Platanus</i>	13.5	3.7	28.9	3.5	-0.4	6.0
<i>Platycarya</i>	16.1	3.1	28.9	4.4	2.7	4.1
Polypodiaceae	11.7	5.8	22.9	4.5	1.7	7.3
<i>Populus</i>	8.1	3.0	21.8	3.3	-3.4	4.4
Proteaceae	18.0	4.8	29.8	4.9	6.5	4.8
<i>Quercus</i>	11.2	3.2	25.2	5.0	0.1	3.3
<i>Rhus</i>	14.1	4.4	29.8	3.5	-0.6	7.2
Rutaceae	17.9	4.5	29.3	4.1	6.9	5.9
<i>Salvinia</i>	21.6	5.7	31.7	2.7	11.4	9.6
<i>Schoepfia</i>	21.6	3.7	30.5	3.5	12.2	6.2
<i>Smilax</i>	17.2	4.6	28.5	3.7	6.1	6.4
<i>Stillingia</i>	19.1	3.0	33.8	5.2	5.6	5.1
<i>Syzygium</i>	21.2	4.6	29.7	4.1	11.5	6.0
Taxodiaceae	15.1	4.5	28.1	5.2	2.6	4.6
Thelypteridaceae	10.0	6.8	22.5	5.2	-1.3	8.7
<i>Triumfetta</i>	23.7	3.7	32.8	4.4	13.1	4.9
<i>Ulmus</i>	8.9	2.5	21.4	3.2	-1.4	3.3
<i>Woodwardia</i>	14.6	4.0	28.1	3.9	1.6	6.3
Zingiberaceae	21.5	4.5	29.5	3.6	12.9	7.1

* Analyzed modern taxa represent nearest living relative of fossil taxa from studied sites (summarized in Table S4).

† Mean values and standard deviations derived from modern global distributions (GBIF, 2016) cross-plotted with high-resolution climatic maps (Hijmans et al., 2005).