

Table S1 Calibrations used for divergence time analysis.

Calibration	Min age	Max age	Citation
root	91	91	Bell et al. 2010
Caryophyllaceae	34	42	Jordan and Macphail 2003
Amaranthaceae	56	66	Nichols and Traverse 1971
Nyctaginaceae	34	42	Zetter et al. 1999
Cactaceae	28.6	35	Arakaki et al. 2011
Droseraceae	34	56	Degreef 1997
Coccolobeae	8.9	53.6	Schuster et al 2013
Eriogoneae	13.1	35.2	Schuster et al 2013
Polygonaceae	51.2	78.8	Schuster et al 2013
Aizoaceae	3	47	Valente et al. 2014, Arakaki et al. 2011
Montiaceae	3.4	43	Ocampo and Columbus 2010, Arakaki et al. 2011

References

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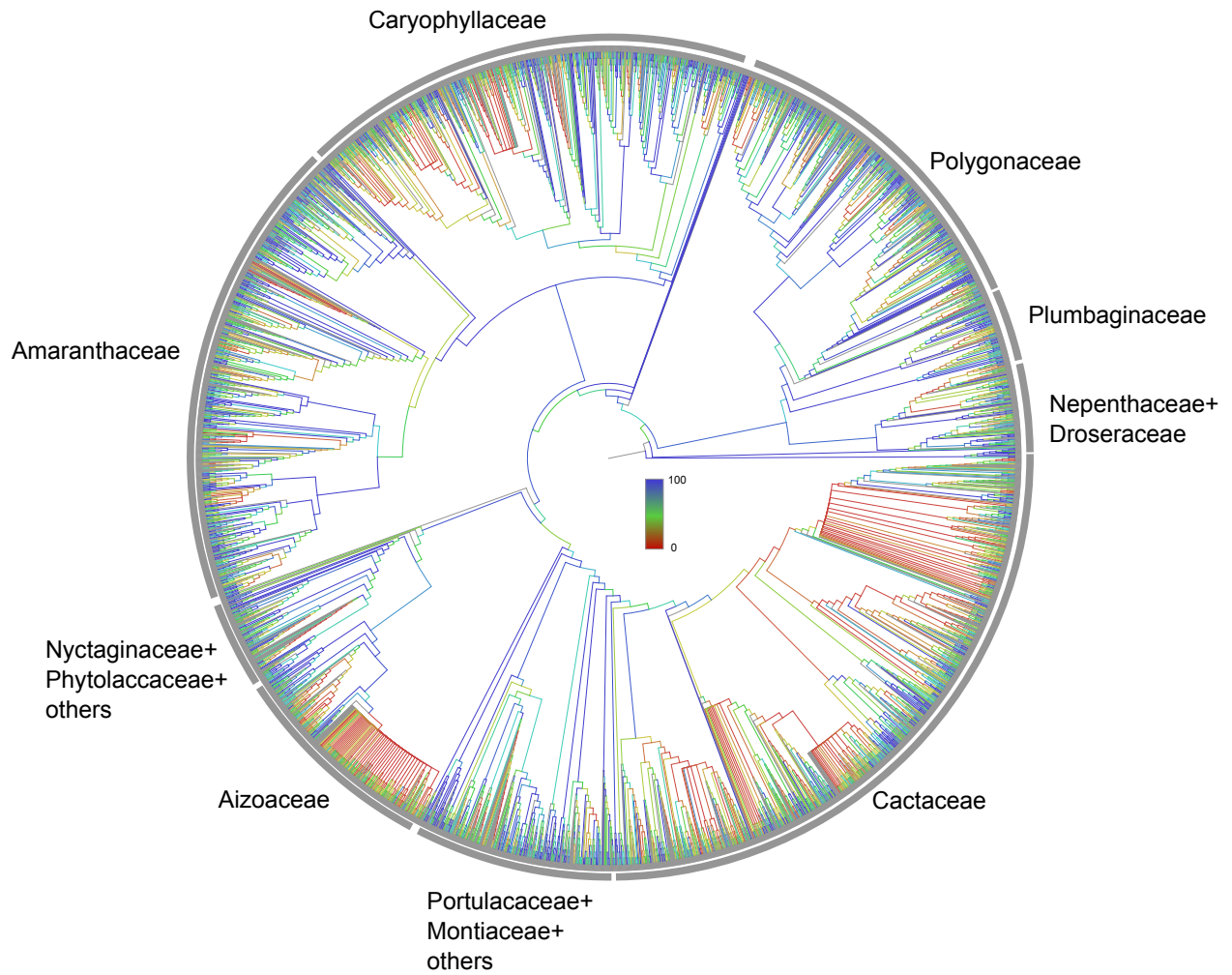


Fig. S1 The cladogram with support mapped for the bootstrap replicates described in the methods.

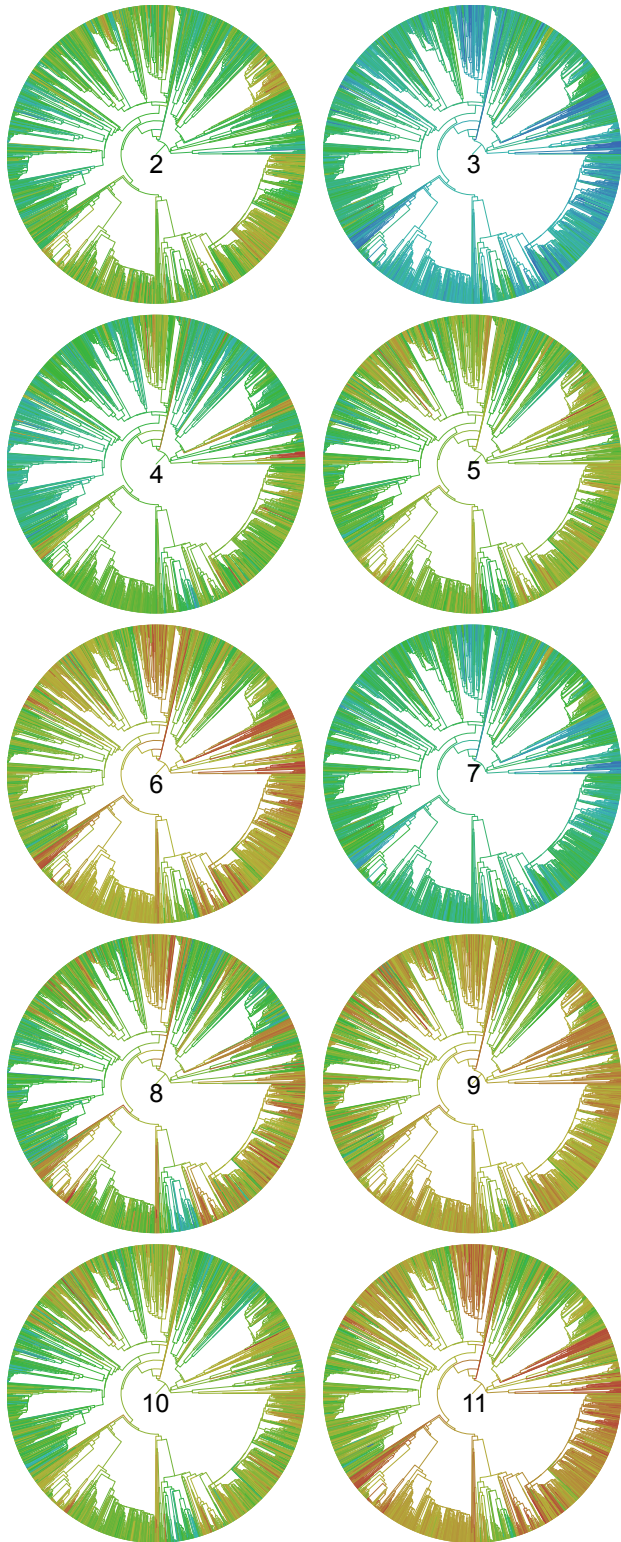


Fig. S2 The chronograms and mapping of temperature variables (bioclimatic variables 2-11) that are not presented in Fig. 1.

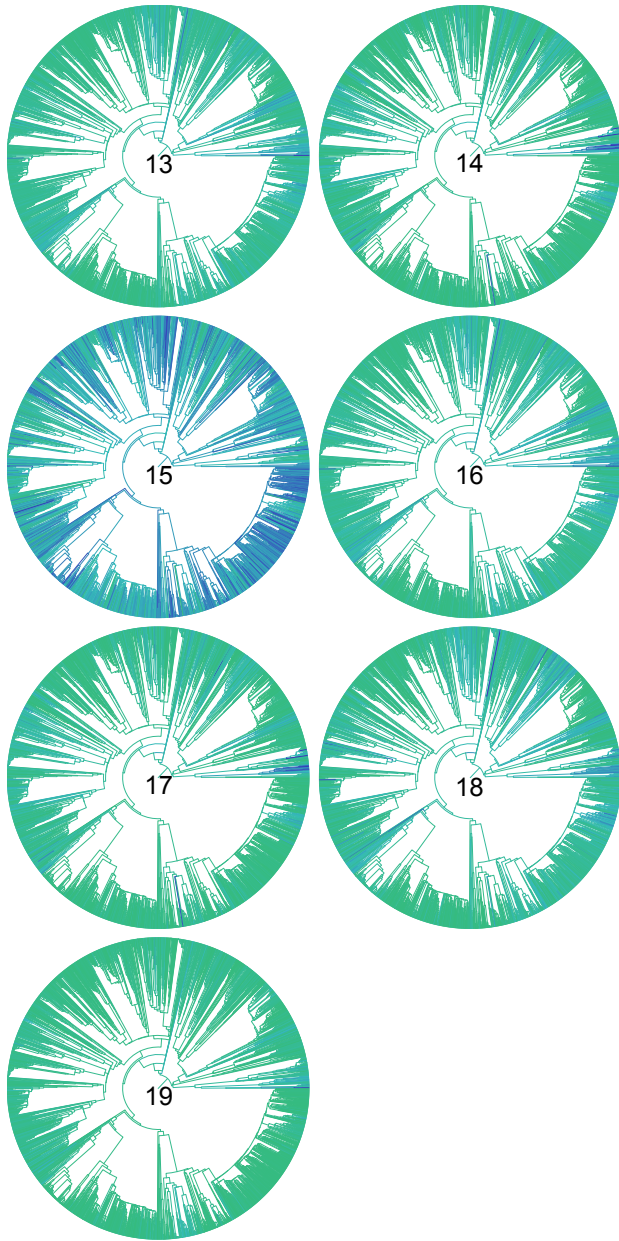


Fig. S3 The chronograms and mapping of precipitation variables (bioclimatic variables 13-19) that are not presented in Fig. 2.



Fig. S4 The chronograms and mapping of PCA axis 2 on the broader Caryophyllales.

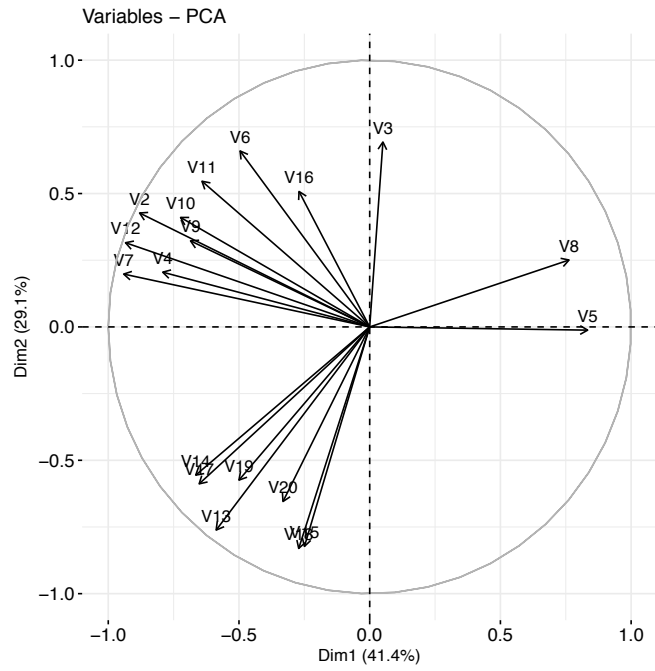


Fig. S5 Principal component loadings for bioclimatic variables.