

Supplement to:

## Reconstruction of warm season temperatures in central Europe during the past 60,000 years from lacustrine GDGTs

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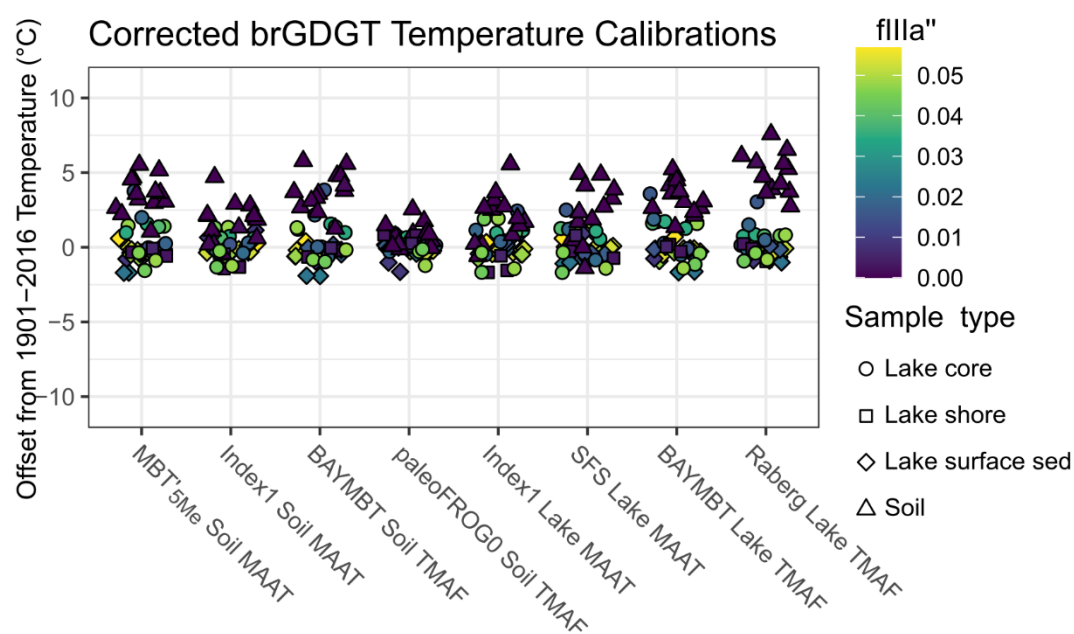


Figure S1: Offsets between brGDGT-inferred temperatures and 1901-2016 temperature data after applying corrections based on fIIIa''. Symbol shape corresponds to sample type, symbol fill corresponds to the fractional abundance of the IIIa'' isomer.

PCA – Biplot: Global brGDGT dataset (Martínez-Sosa et al., 2023)

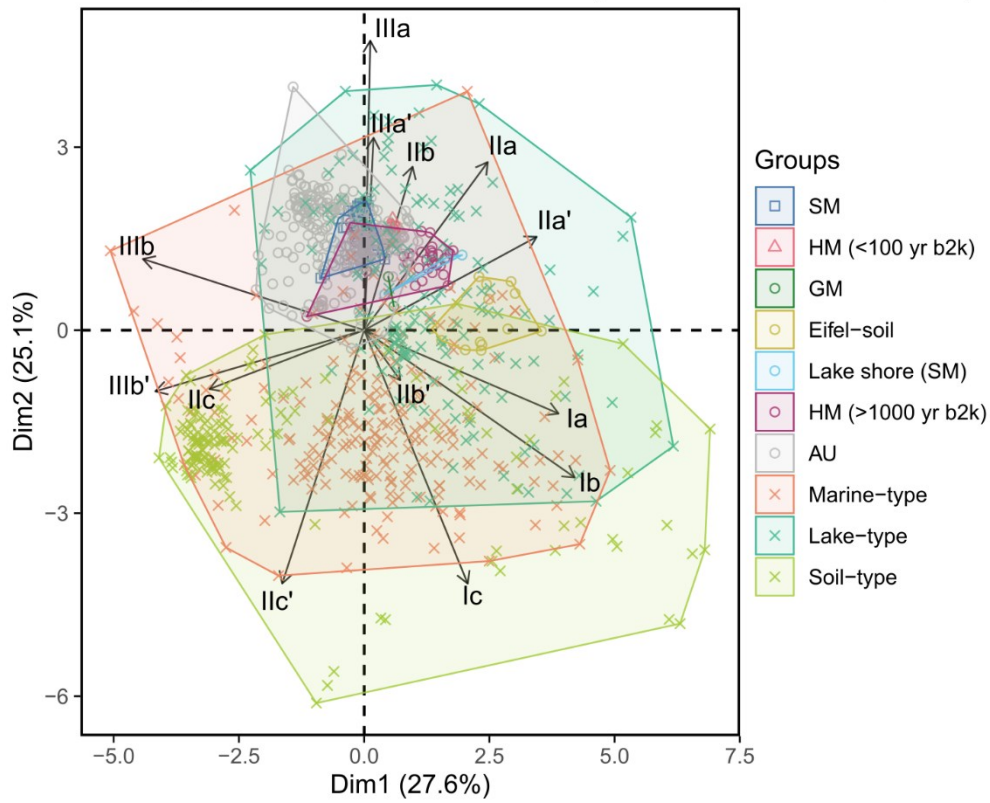


Figure S2: PCA of brGDGT data from Eifel samples and a global compilation (Martínez-Sosa et al., 2023).

**Table S1: Summary of key indices and temperature estimates obtained from 17 separate extractions and measurements of a single sample to test reproducibility of the laboratory and analytical method.**

	<b>MBT'<sub>5Me</sub></b>	<b>BIT</b>	<b>fIIIa''<sup>1</sup></b>	<b>ΣIIIa/ΣIIa</b>	<b>brGDGTs (ng/g)</b>	<b>isoGDGTs (ng/g)<sup>2</sup></b>	<b>Cren (ng/g)<sup>2</sup></b>	<b>BayMBT (° C)</b>	<b>BayMBT_adj (° C)</b>	<b>Raberg21 (° C)</b>	<b>Raberg21_adj (° C)</b>
Mean (n=17)	0.193	0.591	0.018	2.225	1815.2	2749.1	1248.0	4.37	5.20	6.28	6.53
Standard Deviation (n=17)	0.006	0.018	0.002	0.193	298.7	585.4	256.0	0.18	0.24	0.10	0.14

<sup>1</sup> fIIIa'' calculated as a fraction of all measured brGDGTs

<sup>2</sup> Includes crenarchaeol and crenarchaeol isomer