



Supplement of

Lipid-biomarker-based sea surface temperature record offshore Tasmania over the last 23 million years

Suning Hou et al.

Correspondence to: Suning Hou (s.hou@uu.nl)

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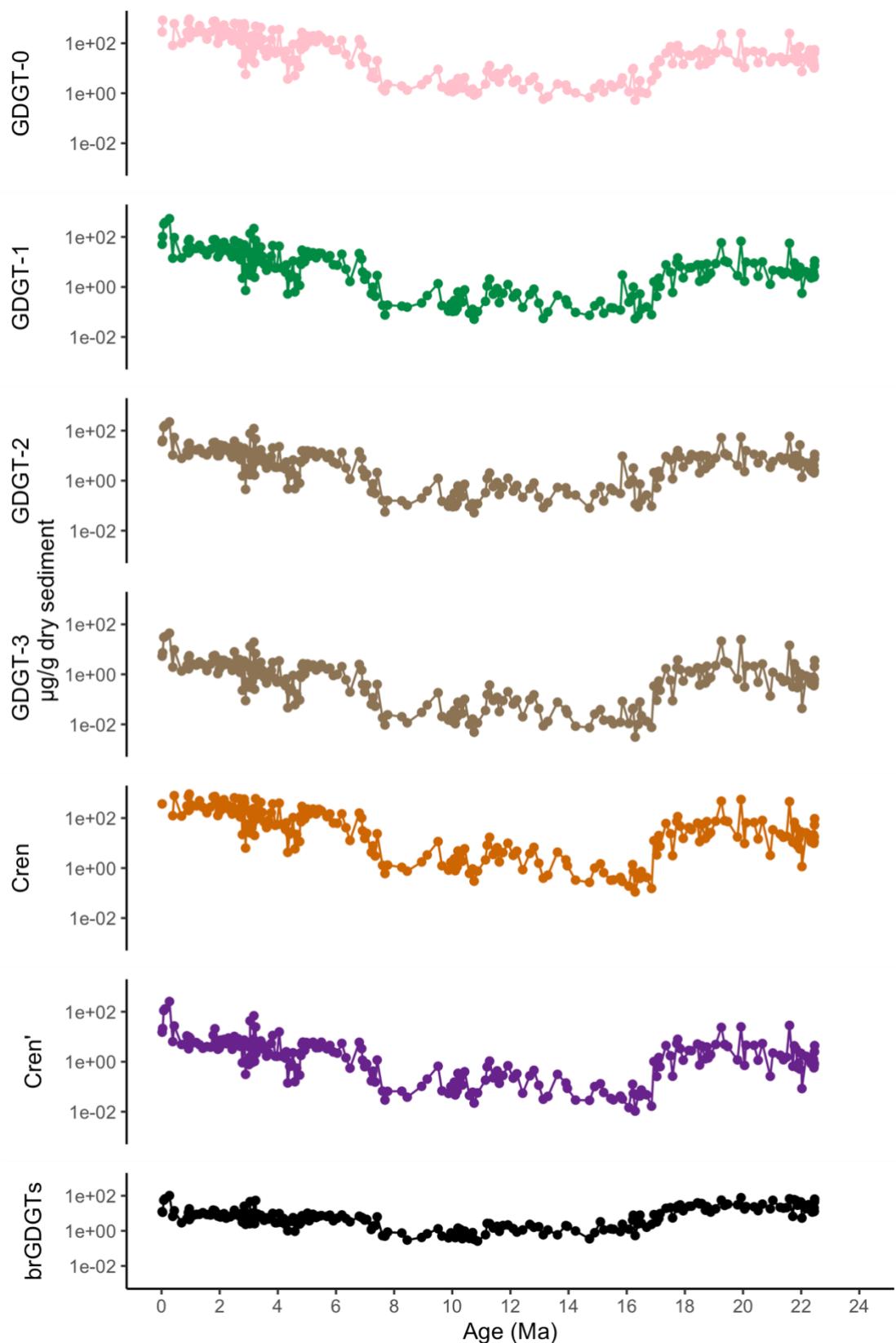


Figure S1: Absolute abundances of GDGT-0, GDGT-1, GDGT-2, GDGT-3, Cren, Cren', brGDGTs , standardized by per gram of dry sediment. BrGDGTs here includes the components used in BIT calculation, namely, IIIa, IIIa', IIa, IIa', Ia

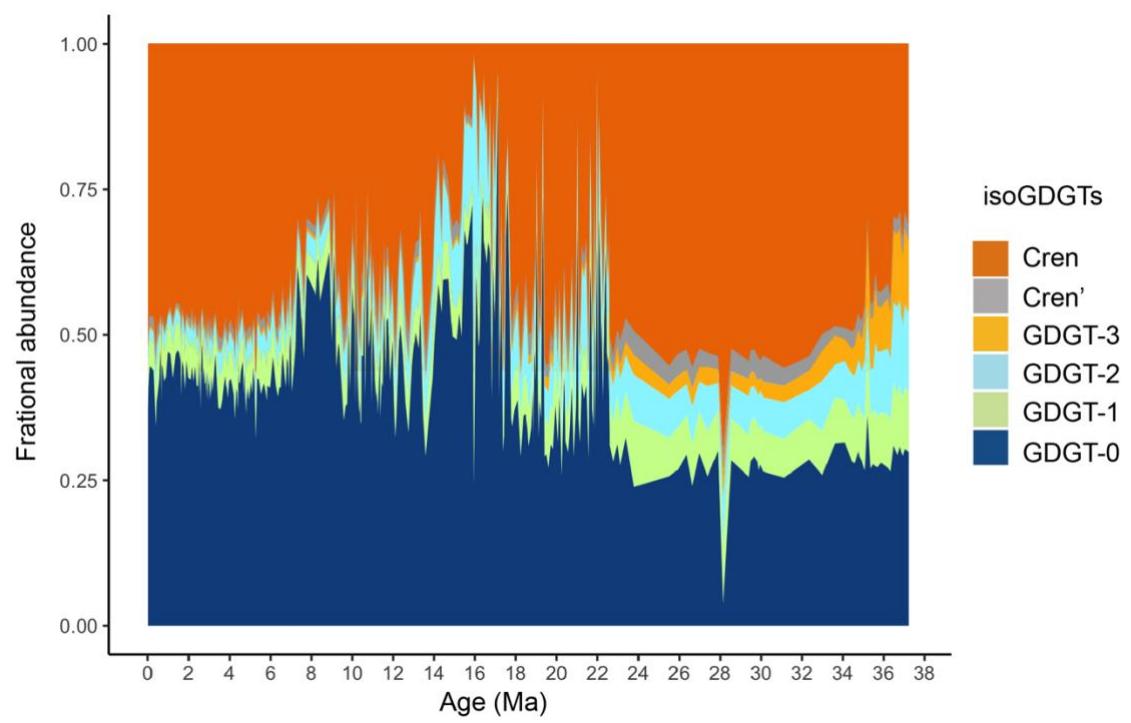


Figure S2: Relative composition of isoGDGTs at ODP Site1168

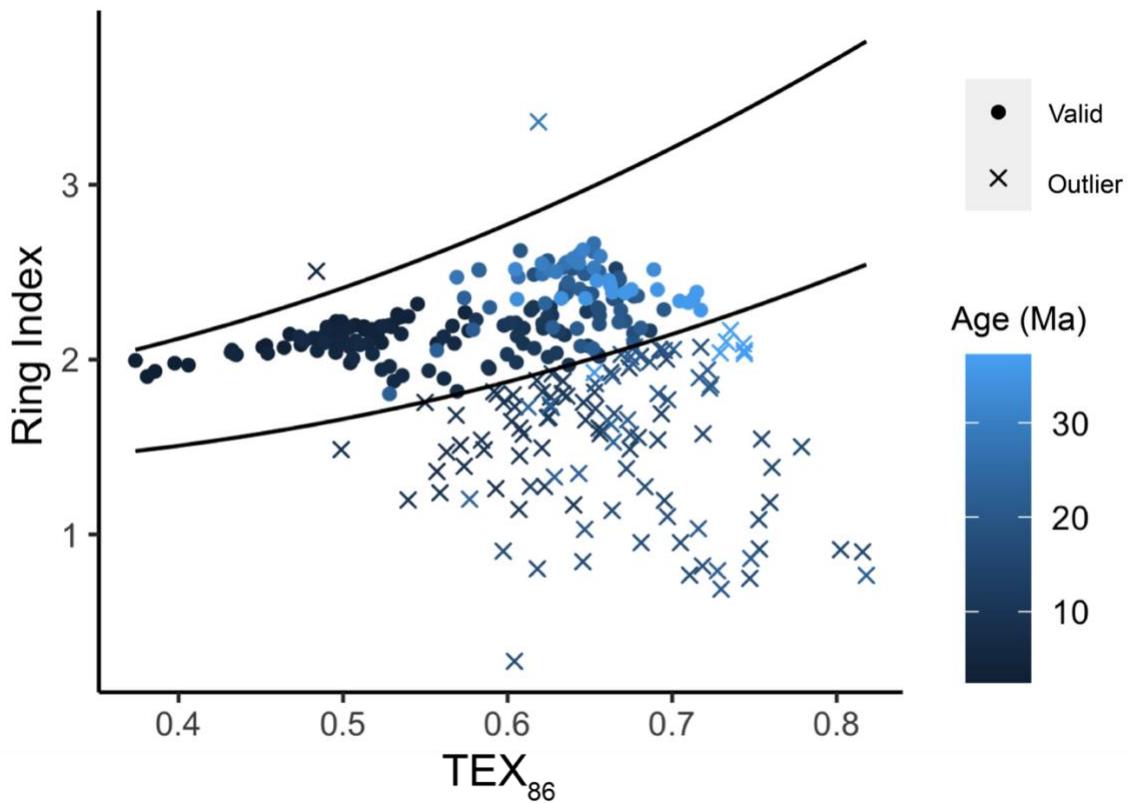


Figure S3: Ring Index versus TEX_{86} . Points represent the samples with RI- TEX_{86} array falling in the 95% confidence interval of the modern core top samples (black curves, Zhang et al., 2016), crosses are outside that interval. Colour of all data points indicate the age of the samples, from the late Eocene (light blue, Hoem et al., 2022) to modern (dark blue, this study).

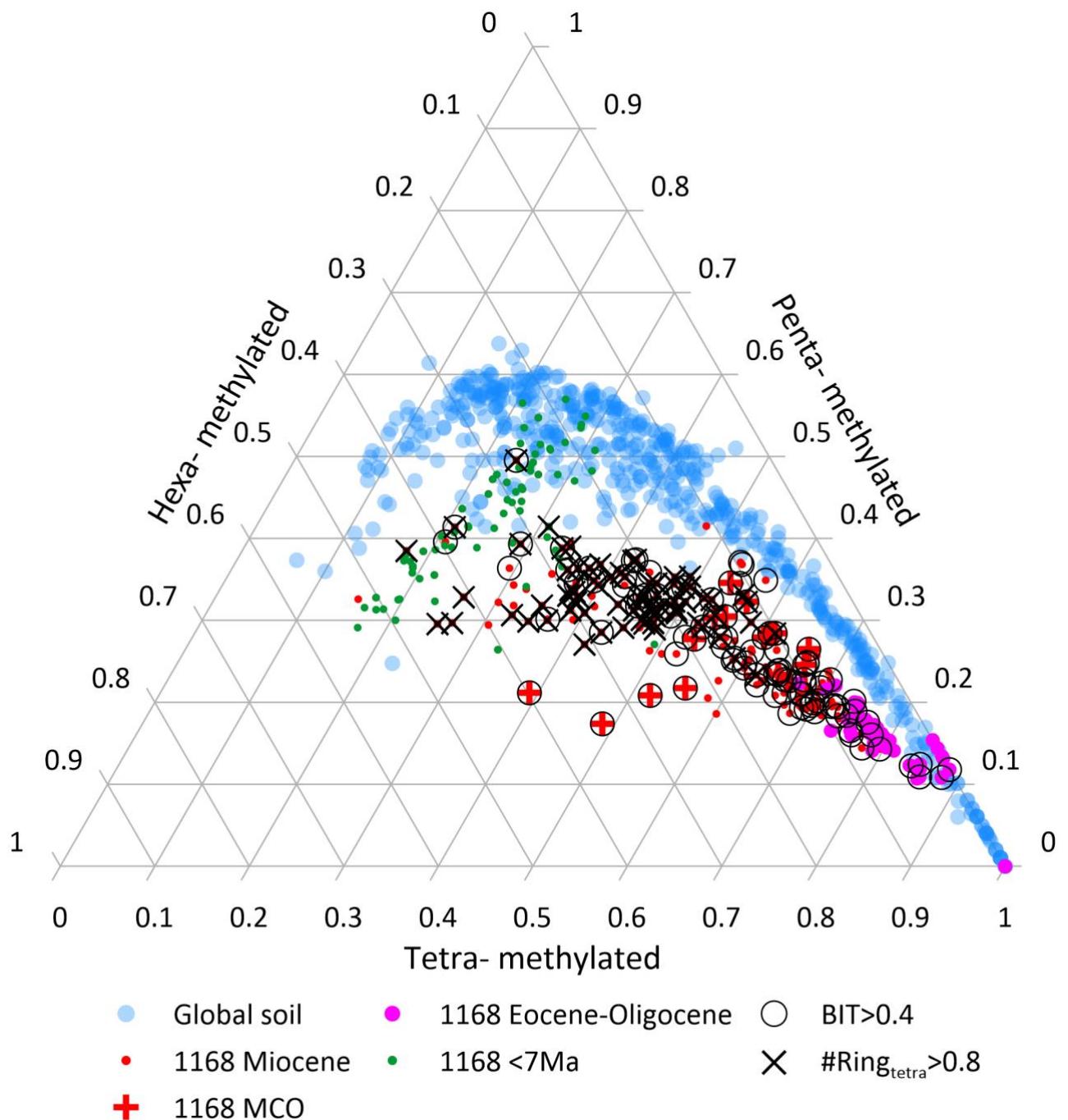


Figure S4: Ternary diagram fractional abundances of tetra-, penta-, hexa- methylated brGDGTs of modern soil (blue dots, De Jonge et al., 2014) and Site 1168

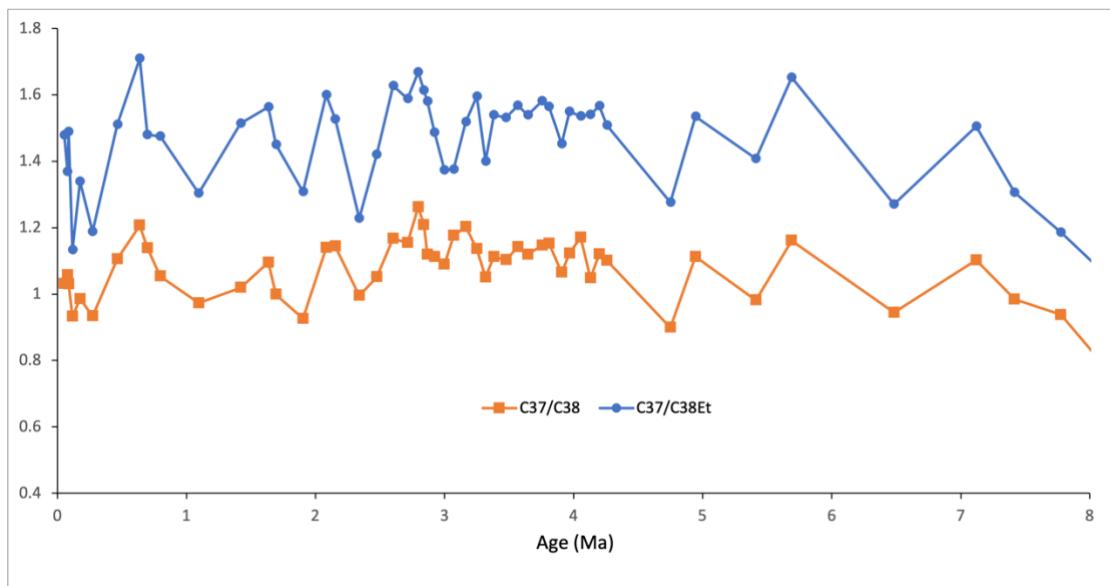


Figure S5: C_{37}/C_{38} and $C_{37}/C_{38\text{Et}}$ results of Site 1168. C_{38} alkenones are only well resolved in the samples younger than 8 Ma.

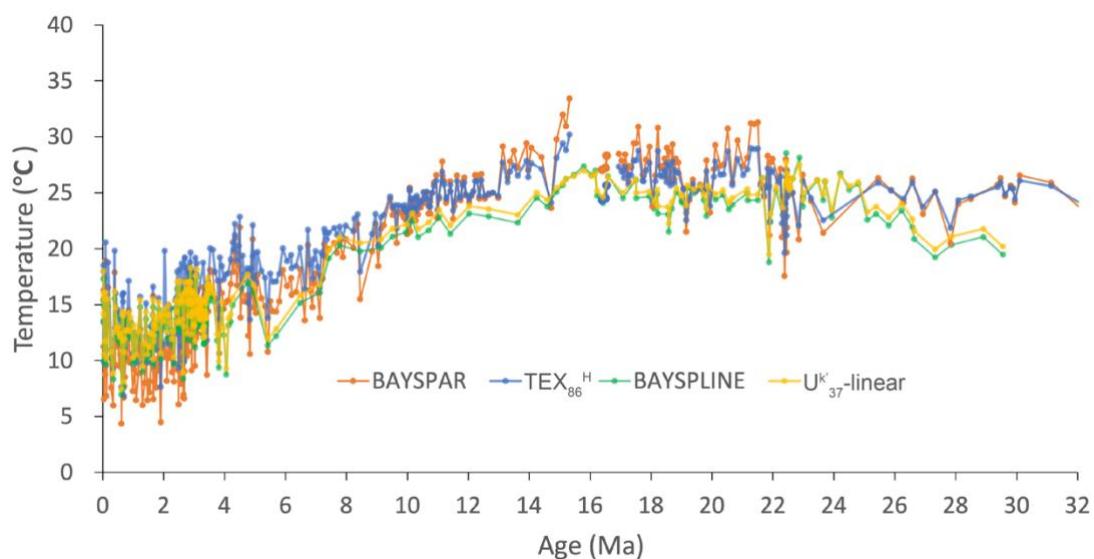


Figure S6: Sea surface temperature reconstruction using BAYSPAR (Tierney and Tingley, 2014; 2015), TEX_{86}^H (Kim et al., 2010), BAYSPLINE (Tierney and Tingley, 2018) and Uk'_{37} -linear (Müller et al., 1998) calibration respectively of Site 1168

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