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

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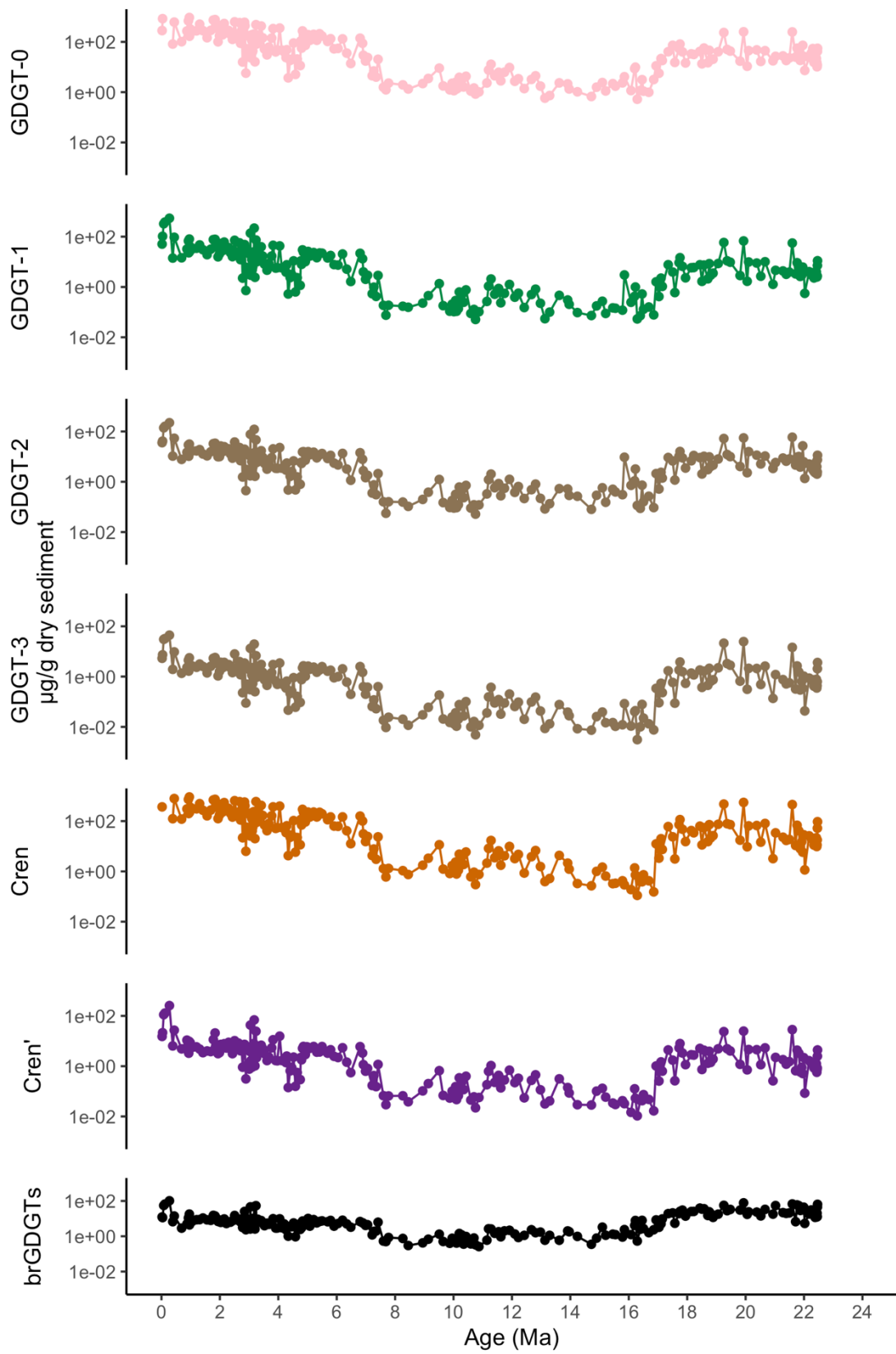*Correspondence to*: Suning Hou (s.hou@uu.nl)

Figure 1: 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
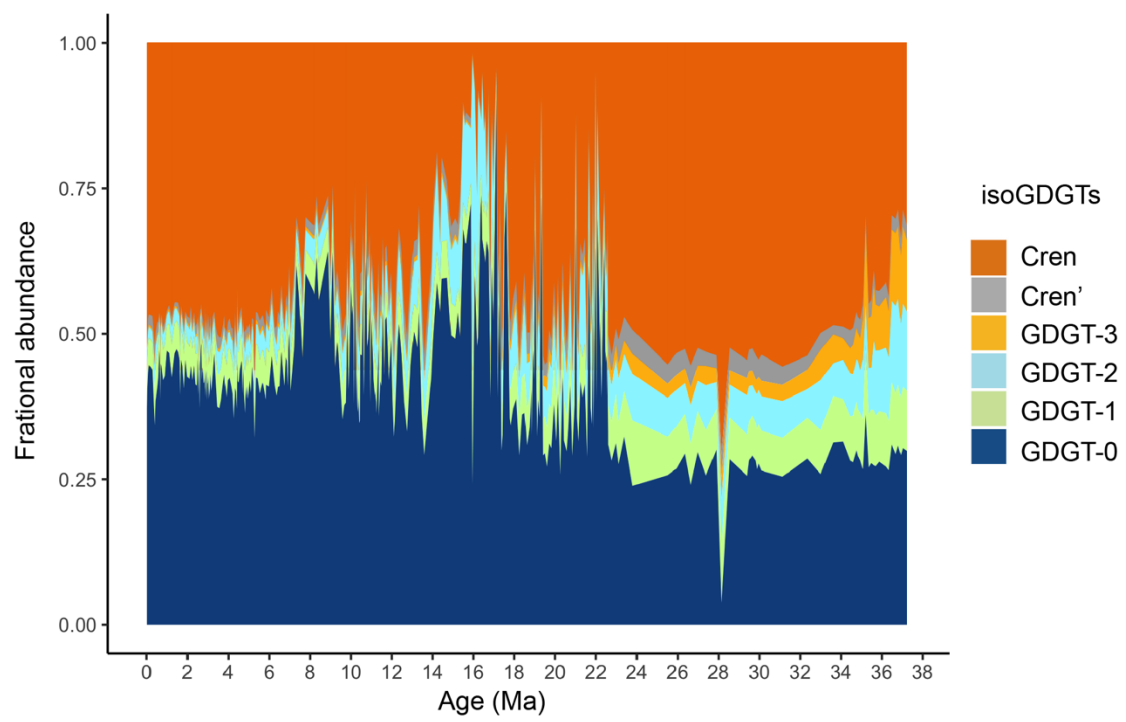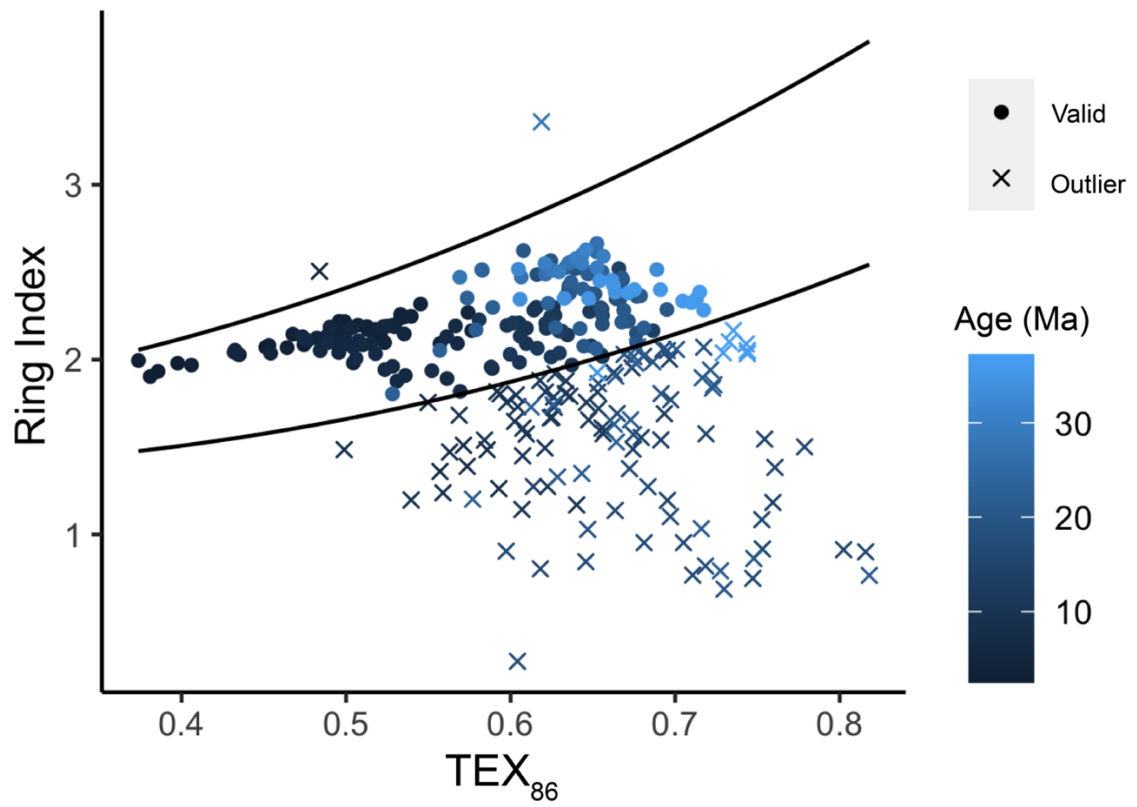
Figure 2: Relative composition of isoGDGTs at ODP Site1168

Figure 3: 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).
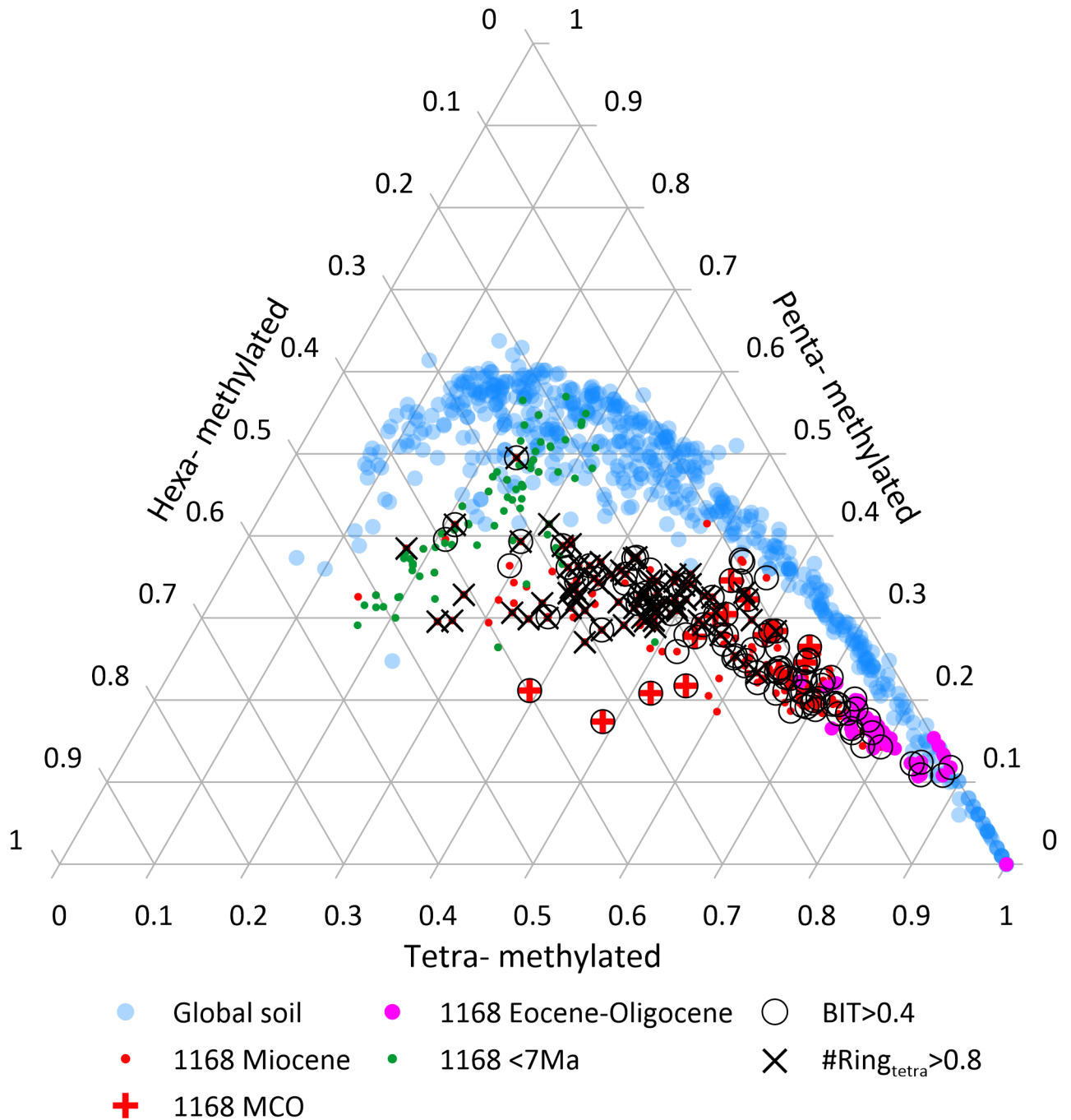
Figure 4: Ternary diagram fractional abundances of tetra-, penta-, hexa- methylated brGDGTs of modern soil (blue dots, De Jonge et al., 2014) and Site 1168

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de Jonge, C., Hopmans, E. C., Zell, C. I., Kim, J. H., Schouten, S., & Sinninghe Damsté, J. S.: Occurrence and abundance of 6-methyl branched glycerol dialkyl glycerol tetraethers in soils: Implications for palaeoclimate reconstruction. *Geochimica et Cosmochimica Acta*, *141*.

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