

***Interactive comment on “Assessing branched tetraether lipids as tracers of soil organic carbon transport through the Carminowe Creek catchment (southwest England)” by Jingjing Guo et al.***

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Guo and colleagues have carried out an in-depth study of GDGT mobilisation, transport and production in single catchment, Loe Poole Lake, in the UK. They attempt to use branched GDGTs as tracers for soil mobilisation from different parts of the catchment, but conclude that this is not possible using the available samples. Instead they use data from the creek and lake to reconstruct catchment-wide changes through the last century.

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This is an exemplary study, demonstrating how to carry out a thorough investigation of GDGT data. The authors should be applauded for their careful application of laboratory, analytical and statistical techniques. I recommend that this paper is accepted for publication.

Minor comments are limited to typographical and grammatical changes:

Line 166: The word ‘close’ is repeated

Line 256: Extra space ( Weijers

Line 268 – 271: These sentences do not make it clear the direction of the trend. “BIT values gradually increase > 0.4” lacks context – do they increase or decrease with altitude? Also, be specific about whether crenarchaeol is decreasing up or down the transect

Line 277: “Interestingly, also . . .” is grammatically odd

Line 315: suggest replacing ‘occupied’ with ‘accounted for’ or similar words

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