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Interactive comment on "Leaf wax n-alkanes in modern plants and topsoils from eastern Georgia (Caucasus) – implications for reconstructing regional paleovegetation" *by* Marcel Bliedtner et al.

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Dear Jens Holtvoeth,

Thank you for your interesting and engaging comment on our local leaf wax n-alkane calibration study and the reference towards your investigations in the Ohrid Basin. We will include your observations on the n-alkane distribution from litter and topsoils under oak and beech forests in our discussion. Interestingly, you observe a C31 dominance in the topsoils of your beech-dominated forest sites without a strong grassy undergrowth,

whereas the beech leaf litter shows a strong dominance of C27. So far, we assumed land-use changes and intensive grazing as possible drivers for the deciduous site of our transect that shows a C31 dominance in the topsoil. Your observation that n-alkanes from grasses enter overrportionally the topsoil, whereas leaf litter is more mobile, is a very interesting explanation and will be included and discussed in the manuscript. Apart from the deciduous site with the C31 dominance in the topsoil, all deciduous sites along our transect seem to incorporate the C29 n-alkane signal from plant/litter into the soil. However, those sites have a closed canopy with less grassy undergrowth, but we agree that the grassy undergrowth depends on a range of local factors that might complicate a clear interpretation of the n-alkane distribution as a paleovegetational proxy.

Best wishes,

Marcel Bliedtner

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