

Interactive comment on “The emission factor of volatile isoprenoids: caveats, model algorithms, response shapes and scaling” by Ü. Niinemets et al.

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Yes, Thomas, of course we need to validate up-scaling schemes with top-down approaches that meet the up-scaling at some appropriate level (canopy, landscape or region). I don't think we disagree on this issue. But, the intent of this paper is to point out the influence of variance (biotic and abiotic) in the EFs used in the up-scaling on uncertainties in the predictions that are made. Just because an up-scaling exercise matches a top-down validation, doesn't mean that the up-scaling scheme 'got it right'. Equifinality forces us to consider the validation exercise within the scope of uncertainties in the up-scaling scheme, an important component of which could be due to variation in the

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chosen EFs. Our ms. was meant to provide a perspective on the potential influence of variance in the chosen EFs for up-scaled VOC emission estimates.

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