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Biogeosciences
Discussions

Interactive comment on "A bottom-up quantification of foliar mercury uptake fluxes across Europe" *by* Lena Wohlgemuth et al.

Anonymous Referee #2

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Paper by Wohlgemuth et al. dealing with bottom-up quantification of foliar mercury uptake fluxes is really a notable contribution to the field of Hg foliar uptake quantification. This study deals with 10 sites located across a transect from Switzerland to northern part of Finland. Paper is well written and scientifically sound. Four species uptake rates were quantified and results of the study were up-scaled to the European and World measures. I have no major comments that would have to be addressed. But after reading, I was left with an unanswered question (mentioned by authors in Introduction) whether coniferous or deciduous trees have greater Hg concentration in their foliage. I looked for the data on Hg concentration (ng/g) in foliage at each site and I only found needle age class concentrations in Fig.SI3. I could not find relevant data for the deciduous species. . . Could Table S1 be amended with a column of Hg concentra-

tions for all sites? Author could consider comment on differences between deciduous and coniferous trees across sites? Mentioned wet Hg(II) deposition at 5 selected sites was quite low inline with data from other European sites, could you be more specific of methods or protocols that were used at these sites. Authors postulate that the wet deposition rate covers the same period – so is it or is it not annual wet Hg(II) deposition rate?

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