



Interactive comment on “Halogens in porewater of peat bogs – the role of peat decomposition and dissolved organic matter” by H. Biester et al.

Anonymous Referee #1

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The study by Biester et al. describes the halogens in porewaters of peat bogs. The subject is of interest and sufficient originality to merit publication. Used methods are state of art. However, there are lot of assumptions and structure of the text is little unclear. Restructuring and more detailed explanations of some parts of the text are suggested.

Specific comments:

In sampling description, it would be interesting to know how many samples were taken at each depth and locations and on how many locations at each site. I would also like to see some error estimates (e.g. standard deviations between the samples at each depth) to be able to better estimate how significant are the deviations between different depths and different parameters. It would be important, because new sampling system was used.

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In the description of the chemical analysis (p. 1463, lines 6-9), it was unclear, why the Rhenium was used instead of Rhodium. Why shifting does not affect all the peaks? More information about the shifts and the analytical mass of Rhenium should be given.

Amounts of organobromine and organoiodine (p. 1463, lines 13-16) were calculated from the difference between total and inorganic species. Could some error estimates of the method (e.g. standard deviations between parallel samples) be given? Are there any references to this kind of method?

A few words about carbon and nitrogen, peat and rainwater sampling could be added even if detailed description of the method can be found elsewhere.

p. 1466 line 3: It was assumed that there is as much organochlorine in lakes and rivers in Sweden as in porewaters in this study and based on that it is said (even in conclusions) that most chlorine is inorganic. It is also said, that in the study by Asplund (1991) highest organochlorine concentrations have been measured in streams draining peatlands. Based on that, I would assume that concentrations in Peatlands and in porewaters would be higher. Could you clear your assumption?

Table 2 and p.1466 lines10-14: It is said that wide range of halogen ratios is found in porewaters. Are the ratios stable in rainwater? Could the ranges of ratios in rainwater also be added to the table 2?

Interactive comment on Biogeosciences Discussions, 2, 1457, 2005.

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