

Interactive comment on “Technical note: CO₂ is not like CH₄ — limits of and corrections to the headspace method to analyse *p*CO₂ in water” by Matthias Koschorreck et al.

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The technical note quantifies the potential sampling error in estimates of dissolved CO₂ concentrations from headspace measurements, which is caused by shifts in the carbonate equilibrium in the sample. I have been using the headspace method for estimating *p*CO₂ in inland waters for many years. Despite being aware of the general problem, particularly at high pH, the associated error has rarely been considered or even quantified. The technical note provides an excellent analysis of the potential errors for a range of relevant sampling conditions in freshwater ecosystems. I consider the presented results as an easy way for checking the expected error for both planning

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of sampling campaigns and for possible correction of the measurements. As pointed out by both reviewers, the limitations of the headspace technique for measuring pCO₂ are more considered in the marine science community. I acknowledge the contributions that this technical note makes for increasing the awareness of this problem in the freshwater community and by providing quantitative error assessments and correction methods.

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