



UFZ-Seminar

Research Unit



Water Resources and Environment

20 July 2020, 3 p.m.

Seminar Room 1, Brückstr. 3a, Magdeburg

Philipp Keller

UFZ

will give a talk on:

Sealing leaks in the plumbing: Gaseous carbon emissions from dry inland waters

Thirteen years ago, Cole's 'plumbing the carbon cycle' set the ground for acknowledging that inland water ecosystems represent an active component of the global carbon cycle.

However, constraining inland waters carbon emissions and their anthropogenic perturbation is still an urgent need. In this context, light was recently shed on a 'blind spot' in the global carbon cycle: dry inland waters. Both natural and human-made inland waters are frequently impacted by drying. Such ecosystems may partially or fully desiccate temporarily, and in some cases inland waters have even desiccated permanently. Drying can result from natural hydrological or from anthropogenic factors. Furthermore, climate change and increased water abstraction are together expected to exacerbate the widespread prevalence of dry inland waters. Here, I will summarize our work on mechanisms and the global prevalence of gaseous carbon emissions from dry inland waters. My ultimate goal is to convince the audience that taking dry inland waters into account is crucial to comprehensively understand the contribution of inland water ecosystems to the global carbon cycle.