



UFZ-Seminar



Research Unit

Water Resources and Environment



17 October 2022, 3 p.m.

Seminar Room 1, Brückstr. 3a, Magdeburg

Alfred Johny Wüest

Eawag and EPFL

will give a talk on:

Interplay of nutrient supply, primary production and oxygen depletion – Insights from decades of Swiss lakes monitoring

The monitoring of the water quality of lakes, which has been carried out by the Swiss cantonal authorities since the devastating water pollution in the 1970s, has not only generated valuable data of high quality, but also raised management-related questions. Key questions are: (i) Why has phytoplankton only declined slightly, while phosphorus (P) concentrations have fallen since the 1970s by 90% in some cases? (ii) Why has the hypolimnetic oxygen depletion not decreased, despite the massive P reduction? (iii) Why has the fish-catch collapsed drastically, while the algal biomass and oxygen depletion showed little response? (iv) What is the process that causes primary production to be limited only at low P levels? In this talk, I attempt to answer these questions within a consistent framework that Beat Müller and I have developed over the past decade, based on tens of thousands of monitoring data.