

# BayCEER Kolloquium

Lectures in Ecology and  
Environmental Research

WS 2016/17



UNIVERSITÄT  
BAYREUTH

Thursday

**12.01.2017**

**12:00 in H6, GEO**

**Prof. Dr. Ansgar Kahmen**

Botany, University of Basel, Switzerland

## **Hydrogen isotopes in plant organic compounds indicate strong shifts in the carbohydrate metabolism of plants over the past century**

In contrast to the stable C, N and O isotope composition of plant materials, the hydrogen isotope composition of plant organic compounds has not yet been established as a tool in ecological or biogeochemical research. With the development of new analytical instruments that allow the hydrogen isotope analysis of selected plant compounds there is, however, growing interest to explore the power of hydrogen isotopes as tools for ecological and biogeochemical research. In my talk I will summarize recent work from my lab where we show that the hydrogen isotope composition of lipids and carbohydrates reflect the carbon and energy metabolism in plants and could serve thus as an important new tool in plant ecology, plant breeding, biogeochemistry, and paleo applications.