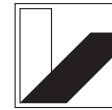


# BayCEER Kolloquium

Lectures in Ecology and  
Environmental Research

Summer 2023



UNIVERSITÄT  
BAYREUTH

Donnerstag/Thursday

**29.06.2023**

**12:15 in H6, GEO**



**Prof. Dr. Angelika Mustroph**

Plant Genetics, BayCEER

## **Responses of Brassicaceae to waterlogging and submergence**

In times of climate change, plants have to cope with periods of prolonged drought as well as events of heavy rainfall causing soil flooding. Depending on the water depth, two flooding variants can be distinguished that cause different problems in plants and therefore require different responses, namely waterlogging and complete submergence. The most severe problem under water is the restricted gas diffusion, limiting both respiration as well as photosynthesis.

Within the Brassicaceae family, many plant species are sensitive to flooding, for example the model plant *Arabidopsis thaliana* and the crop plant *Brassica napus*. However, some plant species are flooding-tolerant and have developed different adaptational strategies to cope with flooding stress, namely from the genera *Rorippa* and *Nasturtium*.

In this talk, I will summarize our data obtained with transcriptomics and metabolomics as well as physiological data in order to identify adaptational mechanisms of Brassicaceae to flooding as well as to understand their molecular background.

