

# Research Unit Forest Dynamics - colloquium

**Date:** 26.09.2023

**Time:** 10:30

**Room:** Engler-Saal

**Duration:** 25 minutes

**Author:** Prof. Dr. Bernhard Schuldt, University of Dresden, Germany

**Title:** Towards a mechanistic sound drought tolerance classification of temperate tree species

## **Abstract:**

In response to severe drought and heat waves of the last years causing elevated tree mortality rates across Central Europe, large disturbed areas need to be reforested. Considering the longevity of trees, the selection of climate resilient tree species is therefore of utmost importance in order to guarantee a continuity in forest cover and the multiple ecosystem services provided by forests. However, to date no mechanistically sound characterization of the drought-stress resistance of temperate tree species native to Central Europe is available. So far, most studies refer to Ellenberg's indicator values, which represent habitat preferences and not the tolerance against climatic extremes. To fill this gap, I will present some novel ecophysiological approaches suited to characterize the drought-stress resistance of temperate tree species, and relate this to their biogeographic origin.