

BayCEER Kolloquium

Lectures in Ecology and
Environmental Research

Winter 2024/25



UNIVERSITÄT
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Donnerstag/Thursday

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12:15 in H6, GEO



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Role of fungal interactions in orchid conservation: Lessons learned and future directions

The presence of suitable mycorrhizal fungi is essential for orchid seed germination and, consequently, orchid conservation. Most orchids retain these fungi into adulthood as they provide critical advantages in nutrient-poor environments, enhance stress resilience, and support long-term survival and reproductive success. Fungi from the polyphyletic rhizoctonia group are major orchid symbionts that can be cultivated under lab conditions. While the biogeography and ontogenetic changes in orchid-fungus interactions are relatively well explored at least for some orchid groups, there is limited knowledge about the nutritional demands, functional traits, cultivability, genetic diversity, and spatial distribution of rhizoctonian fungi within and between sites. In my talk, I will summarize findings from in vitro and in situ experiments with European orchid species and their rhizoctonian fungi conducted in my lab over the past ten years, highlighting the gaps in our knowledge that need to be addressed to successfully bridge ex situ and in situ conservation.

