

BayCEER Kolloquium

Lectures in Ecology and
Environmental Research

Winter 2024/25



UNIVERSITÄT
BAYREUTH

Donnerstag/Thursday

05.12.2024

12:15 in H6, GEO



Dr. Gian-Maria Bonari

University of Siena

Grassland changes in the Alps over the last four decades

This talk explores how plant diversity has changed over the past 40 years in the Valsugana Valley of the Italian Eastern Alps, assessing whether these changes have been consistent across different elevation zones. In recent decades, Alpine valleys have experienced rapid global changes, including the decline of traditional land management and rural expansion, with grasslands being particularly impacted. Our findings revealed elevation-specific changes in habitat classification, community diversity, and composition. Many grassland types have transformed into forests or man-made habitats. Species richness patterns varied with elevation: while richness remained stable at lower elevations, it increased markedly at higher ones. Turnover dominated at lower elevations, while nestedness increased with elevation. Neophytes and thermophilic species increased at lower elevations, while middle elevations saw a shift from dry grassland species to nitrophilous and woody species. High elevations experienced a loss of mountain species, replaced by therophytes and geophytes. These findings highlight the significant transformations that Valsugana's grasslands have undergone, driven by diverse processes along the elevation gradient. Across all gradients, there has been a marked decline in semi-natural grassland species.

