

>> SYNTHESIZE MOUNTAINS OF KNOWLEDGE <<

Submitted Abstract

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Abstract

Warming of mountain regions is projected to be three times faster than the global average likely affecting ecosystem resilience and functioning. In recent years, plant functional traits have become the common currency to measure functional diversity. Yet, little is known how functional traits of grassland communities will change under altered climatic conditions. Here, we have translocated intact plant soil mesocosms from two mountain habitats downslope to simulate their potential local future climate (warming and drought). Moreover, we have translocated mesocosms of low land plant communities upslope to simulate the upward expansion of species distribution. Preliminary results indicate an increase in functional richness, no matter if plant communities have been moved down- or upslope. Underlying drivers of increasing functional richness are likely species turnover under warming and species plasticity under cooling.