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Oral Communication Abstract – PH.03

HERBIVORY A HIDDEN PLAYER IN PLANT INVASION DYNAMICS

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Under global change mountain biodiversity has been increasingly threatened by non-native plant invasions. Although plant invasions are expected to be modulated by biotic interactions, it is still unclear how invertebrate herbivores can affect non-native establishment and success. Using a large manipulative experiment along the core elevational range of plant invasion in the European Alps, we disentangled the effects of abiotic and biotic drivers of native and non-native plant establishment after soil disturbance. Native and non-native species showed contrasting responses to soil disturbance and elevation. Warm temperatures and disturbance promoted non-native success over natives, suggesting that global change will probably favour the further spread of non-native plants in mountains. Most of the observed non-natives were not present in the surrounding vegetation as mature plants but emerged from the seed-bank, indicating that propagules were able to reach even remote natural areas. Moreover, invertebrate herbivores reduced native establishment and cover, showing that natural herbivory pressure from invertebrates might play a role in shifting competition hierarchies between natives and non-natives. Here, we showed that herbivores can influence how species respond to soil disturbance, making it necessary to account for changing biotic interactions when predicting future invasion dynamics.