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Holocene reconstruction of plant and mammal communities in the Austrian and Italian Alps

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The Eastern Alps in Europe have a rich alpine biodiversity and a long archaeological history. However, the palaeoecological record of this region has been relatively understudied, which has limited our understanding of the formation of the contemporary vegetation since the end of the last Ice Age, including the likely impacts of changes in climate and human pressures through pasturing and agriculture. To fill this knowledge gap, we are using plant and mammal sedaDNA taken from five sub-alpine to alpine Holocene lake cores in the Austrian and Italian Eastern Alps: Grosser Winterleitensee, Krummschnabelsee, Mittlerer Kaltenbachsee and Sulzkarsee (Austria), and Laghetti Colbricon (Italy). We will outline our first results on full plant community reconstructions from some lakes and on the mammal presence. Findings from the plant record will allow us for uncovering the Holocene dynamics of plant communities, and for identifying key intervals where biodiversity may have been strongly affected by anthropogenic factors and climate change. The mammal sedaDNA data will also be used to track the presence of domestic livestock through time and therefore provide insight into past human pastoral practices in the region.