

## Oral communication

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### 10,000 years of plant diversity changes under climatic and human constraints in the Silvretta Massif (Austria/Switzerland)

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In a climatically highly sensitive mountainous region such as the Silvretta Alps between Austria and Switzerland past Holocene settlement and pastoral activities, as well the use of natural resources may have had huge mutual influences on alpine flora and vegetation.

Fimba Valley provides, above 2,000 m a.s.l., a diversified range of archaeological sites from the Mesolithic to the Medieval Times (Fig. 1), as well as peat records allowing Holocene palaeoclimatological and palaeoecological reconstructions.

In Clermont-Ferrand we presented palynological results from a 177-cm-long peat core taken in the Las Gondas Bog (2360 m a.s.l.). These results show good agreements with local and regional archaeological findings, as well as with dendrochronological evidence of local Arolla pine (*Pinus cembra*) growth and forests around the bog between ca. 6700 and 4700 BC, followed by an increasing human impact in the valley, specifically starting from Bronze Age (Fig. 2). They also suggest presence of new non-pollen palynomorphs that could represent taxa specific to alpine and subalpine environments.

In addition, several local Holocene flora and vegetational changes seem more to be related to Central European climatic oscillations than to natural plant succession phenomena and/or prehistorical land-use systems.



Figure 1: Location of over 200 archaeological sites in Silvretta Massif, above 1650 m a.s.l. (after Walser, 2012, in prep.)

