

Current MSc-Project within the Paleoecology section

Holocene vegetation dynamics of Mediterranean ecosystems – Sicily

Sicily has an exceptional diversity of vegetation types due to the mountainous topography and resulting climatic gradients. Sicily also constituted an important refugia for temperate tree species during the last Ice Age and is home of several endemic tree species such as the critically endangered *Abies nebrodensis* (Sicilian fir). Recent studies from our group have provided new insights into the vegetation and fire history of Sicily. However, the records studied so far only go back to the mid-Holocene, ca. 7000 years before present. During a recent coring campaign, we retrieved sediment from Lago di Monte Soro, a small pond at 1795 m a.s.l. in the Nebrodi Mountains of Northern Sicily. Preliminary analysis within the scope of a research practical indicates that the sediment record might go back to the Late Glacial, ca. 14'000 years BP, making it the oldest record in Sicily. It further suggests that the critically endangered *Abies nebrodensis* covered a larger range in the past, which has important implications for conservation and management of this extremely rare species. The MSc-project would build on these first results and reconstruct the local vegetation and fire history of the Nebrodi Mountains during the Holocene.

Methods: Pollen, macrofossil and charcoal analysis, numerical techniques

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Lago di Monte Soro, a small pond at 1795 m a.s.l. in the oro-mediterranean vegetation belt of Sicily.