

Workshop 3

Poster presentation

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The importance of microhabitat types for a global conservation planning of two endangered Mediterranean snowflakes (*Leucojum*, Amaryllidaceae)

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An efficient conservation planning of rare plants is often obliterated by the lack of a comprehensive integration of ecological, biological and demographic data. This observation is particularly true if we consider the paucity of informations concerning threatened Mediterranean plants.

The aims of our study are to examine through two rare geophytes: (i) microhabitats differences among and within populations, (ii) their influences on demography and on reproductive success, and (iii) their importance in relation to clonal *versus* sexual reproduction.

Leucojum nicaeense Ardoino and *Leucojum fabrei* Quézel & Girerd are respectively endemic from the Maritimes Alps and the Mont Ventoux (south-east France). These two endemics exhibit contrasted patterns of rarity and threats: *L. fabrei* comprises only 3 populations, whereas the about 20 known populations of *L. nicaeense* are seriously threatened by the tremendous urbanization and landscape fragmentation existing on the Côte d'Azur. Floristic and environmental data indicate that the two taxa mainly grow on xerophytic and rocky grasslands, but a higher ecological amplitude exists for *L. nicaeense*, which is found along a short geographical gradient but a strong ecological one. Demography of *L. nicaeense* seems to be influenced by the closed presence of a low ligneous stratum but *L. fabrei* shows no interference with regard to growth forms. Furthermore, reproductive success was positively correlated with population density for *L. fabrei* and with the total number individuals for *L. nicaeense*. Our results indicate that the importance of microhabitat-specific differences imply to consider the effects of a local scale variability. These data should allow to develop an adequate conservation planning in order to surmount the hugeness of the actual land-use changes characterizing this region.