TITLE

In situ and ex situ conservation of plant species at extinction risk

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Project description

The aim of the network Natura 2000 is to protect some rare natural habitat types and rare species that can be threatened, becoming at extinction risk. Thus it is very important to identify the threatening factors and set up and implement actions for the conservation of the populations through time, by techniques of conservation both *in situ* and *ex situ*.

This project aims to assess the status of populations of some endangered plant species, typical of natural and semi-natural alpine environments. In particular, the germination of endangered plant species is under study, by applying experimental protocols for the preservation of germoplasm, both in the term, for a conservation strategy *ex situ*, and in the short-term, in order to remove any factors that induce dormancy. The final goal is to be able to reproduce the test species thorough *in vitro* tissue cultures and to reintroduce them in the native environment, where they are showing a decline. Re-population *in situ* should be preceded by molecular studies in order to confirm that somaclonal variation did not occur.

This project is carried out in collaboration with Dr. Victoria Cristea (Botanical Garden, Babeş-Bolyai University, Cluj-Napoca, Romania), Dr Jacopo Gabrieli (CNR Venezia), Veneto Agricoltura.



In vitro Drosera rotundifolia L. seedlings