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Recovery and production of autochthonous species in the Santa Caterina ski area (Sondrio, Italy)

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This paper deals with the area where the 2005 World Ski Championships were held (Alta Valtellina, Sondrio, Italy).

Numerous public and private bodies are involved in recovering the landscape; an agreement protocol has been signed by all the competent bodies within the territory.

The paper aims to analyse two particular aspects of the project: first (commissioned by the ski-lift company), recovery of the Deborah Compagnoni ski slope, used for the World Ski competitions and second (commissioned by Stelvio National Park), environmental improvement of Vallalpe, where new ski slopes have recently been developed.

In order to sodding the Compagnoni Slope, which involves different vegetational zones and different soil chimisms, a preliminary phyto-sociological analysis of natural coenosis was carried out. Through this analysis three seed mixtures were found to be compatible with the site ecological characteristics of the different areas, to avoid soil erosion and to guarantee long term maintenance of meadowlands.

For the improvement of Vallalpe, characterized by rocky slopes, alpine grasslands and small lakes with hygrophilous vegetation, the work described refers to: first, setting up a weather station with a monitoring centre; second, creation of a nursery for “in situ” breeding of rare autochthonous species (reinforcement of existing populations in the ski area). In order to create this nursery, seeds of various autochthonous species were collected “in situ”: (*Carex bicolor, Dianthus glacialis, Antennaria carpathica, Armeria alpina, Eriophorum scheuchzer*i, *Saxifraga bryoides, Androsace alpina, Ranunculus glacialis, Geum reptans, Achillea moschata*) and then reproduced in an “ex situ” breeding centre and re-planted in loco with little incidence on the habitat.

Small “holes” were made, with a random distribution, in order to propagate the species, so that they are protected from climatic agents by the same natural coenosis and erosion phenomena caused by soil decortication are avoided. At the same time, the presence of the same species in nature, at a short distance from the breeding ground, ensures the necessary genetic exchange which is not envisaged in traditional nursery.