IntraBioDiv - Does plant species diversity and habitat diversity correspond with genetic diversity? Proceedings of a running EU-project

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The running EU-project IntraBioDiv deals with the question whether regions of increased plant species richness are also more diverse with respect to genetic variation of the species concerned. Following the basic idea that intraspecific diversity, i.e. genetic polymorphism, represents the evolutionary potential of each species in changing environments, a correlation between genetic diversity, species richness, and habitat diversity is sought. The study area encompasses the alpine zones of both the Alps and the Carpathians. A list of 1400 high mountain species was defined for comparisons of species richness on a rectangular grid with cell sizes of 400 km². The same sample grid served for collecting 45 selected species for genetic analyses, and for analyses on habitat variation.

The data on species richness distribution was quite heterogeneous in the beginning, given the fact that countries such as Switzerland, Germany or Austria have outstanding data at disposition while others still needed to complete distributional information in the field. Nevertheless, the initiative results in a systematic collection of plant species richness on a coarse scale and over large mountain areas in Central Europe. As a spin-off product of the project, a distribution atlas of the flora in the Alps and the Carpathians is foreseen. In addition, project results will be eventually available in databases. The following countries are involved in the EU-project: Austria, Germany, France, Italy, Poland, Romania, Slovakia, Slovenia, Switzerland, Ukraine.