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Genetic variability in selected taxa of *Hieracium* sect. *Alpina*

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Two taxa included in the present study belong to the *Hieracium rohacsense* group. *H. rohacsense* KIT. is considered to be endemic to the high mountain ranges of the W Carpathians. However, many Central European authors have treated not only W Carpathian populations under the name *H. rohacsense* s.str., on which the name is based, but also those from the other mountains of Central Europe. Pollen production in cultivated plants in experimental fields was found to be completely disturbed, although a small amount of pollen of heterogeneous size with normal exine has been observed in two studied plants. The male sterility phenomenon underlines the genetic isolation of *H. rohacsense*.

The population of the probably still unnamed taxon closely related to *H. rohacsense* was found during the expedition to the Ukrainian E Carpathians on Mt. Pop Ivan (Marmarosh Mts.) in 1996. Plants from Mt. Pop Ivan have less grey and darker involucre bracts than *H. rohacsense* because of less numerous stellate and clothing trichomes and more abundant glandular ones. The plants from this population produce considerable quantities of heterogeneous-sized pollen grains with normal exine in the field and in cultivation. *H. rohacsense* as well as plants from Mt. Pop Ivan are tetraploid ($2n=36$) with an apomictic mode of reproduction proved by emasculation experiments.

The study was aimed at the evaluation of the genetic variation within and between populations of *H. rohacsense*. We investigated whether isozymes can be useful as discriminatory taxonomic markers between *H. rohacsense* s.str. and the closely related population from Mt. Pop Ivan.

Five isozyme systems (AAT, ADH, LAP, PGM, SKD) were studied. No genetic intra- and inter-population variability was detected in *H. rohacsense*, which is in accordance with its narrow morphological variation. In contrast, the population from Mt. Pop Ivan is represented by three genotypes. The plants on this locality vary in density of the indumentum on involucre bracts, but this variation does not deserve taxonomic recognition. Presence of diploid sexual taxa in the Ukrainian E Carpathians (*H. alpinum* L., *H. conicum* ARV.-TOUV. and *H. transsilvanicum* HEUFF.) may contribute to the increase of genetic variability. *H. rohacsense* and plants from Mt. Pop Ivan can be separated by morphological characters and also on the base of their isozyme patterns. Some other tetraploid taxa studied in less detail (*H. stygium* UECHTR., *H. chlorocephalum* s.l. and *H. nigratum* s.l.) have unique isozyme phenotypes within each taxon.

The name *H. rohacsense* KIT. has also been used in a wide sense for a long time for what we now understand as *H. rauzense* MURR from the E Alps. One electrophoretically analysed plant of *H. rauzense* differs from *H. rohacsense* in morphology, ploidy level (the former one is triploid) and by its isozyme banding pattern.

The isozyme data provide evidence of heterozygosity, as has been shown in other agamic genera.