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Assessment of relationships between diploid and triploid plants of *H. alpinum* on the basis of RAPD data

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The study of hawkweeds in the mountains of Central Europe and Ukraine represents a good model for microevolution of higher plants. The members of sect. *Alpina* (Fr.) F.N.Williams inhabit the highest vegetation belts and their stations form an 'island' system. *H. alpinum* L. s.str. differs from other representatives of this section from the Tatry Mts. by a considerable level of within-population genetic variability revealed by RAPD markers (Štorchová et al., submitted).

Populations of *H. alpinum* L. s.str. from Tatry Mts. (Slovakia) together with populations of this microspecies from the Krkonoše and Jeseníky Mts. (Czech Republic) and from the Western Carpathians (Ukraine) were screened with an additional 20 primers. The aim of this study was to find population-specific RAPD primers that distinguish between the various populations, but which should not be able to detect within-population variability. Two primers – ABA 07 and ABA 19 – provided reproducible results and divided the populations of triploid plants from the Czech Republic and Slovakia into two groups, roughly corresponding to their geographical distribution. However, the same primers revealed within-population variation in the populations of diploid *H. alpinum* from Ukraine. This finding is in agreement with the supposition about the contribution of sexuality to the reproduction of diploid plants. The RAPD phenotype typical for the populations of triploid *H. alpinum* was identical to some individual RAPD phenotypes in populations of Ukrainian hawkweeds. More primers will be checked to compare the population-specific RAPD patterns of triploid *H.alpinum* to the individual-specific patterns of diploid Ukrainian hawkweeds.