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Carpathians as major geographic barriers shaping the phylogeographic history of *Erythronium dens-canis* (Liliaceae) in Europe: insights from plastid DNA sequences

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The impact of Quaternary climate events on intraspecific history of deciduous forest herbs remains poorly understood when compared with the arctic-alpine plant species which have been extensively studied in the last decade.

*Erythronium dens-canis* L. is disjunctly distributed from the Iberian Peninsula to Ukraine without extending above the Alps. It is a typical deciduous forest geophyte inhabiting also mesophytic meadows in the subalpine belt. It remains thus challenging to test its past presence in regions which have been hypothesised to be characterised by cold and dry steppe vegetation during Quaternary climate fluctuations.

We studied the plastid *rpl32-trnL* IGS sequence variation in an initial sample set of *E. dens-canis* originating from different parts of the species range, using *E. caucasicum* and *E. sibiricum* samples as outgroups. Although based only on a modest dataset (12 sequences from 12 populations), parsimony network and phylogenetic tree analyses uncovered a striking phylogeographic pattern and recognition of a 'Transylvanian', and a 'non-Transylvanian' lineage suggesting the long standing isolation of species within the Transylvanian basin. Genetic distances (in terms of number of mutations) between the Transylvanian, non-Transylvanian Transylvanian basin. Genetic distances (in terms of number of mutations) between the Transylvanian, non-Transylvanian and the northern Pannonian Basin: a numerical classification. *Presa**ia** 82: 165-221.

In line with Krajina and Záchenská (2010), we studied more than 100 populations of *F. valesiaca* agg. in Ukraine. The typical specimens of *F. pseudodalmatica* (according to protologue) occurred exclusively in the region of the Volcanic Carpathians (Lovachka Mt. and Chorna Gora [Black Mountain]) in the rocky xerothermic meadows, considered to be relict by many authors. The remaining blue-gray 'large' populations appear to be morphologically a very heterogeneous material.

To authors’ consideration, East European *F. pseudodalmatica* tends to be a fake aggregated taxon. Perhaps, it is confused with similar “small” species not described yet and possibly of hybrid origin. However, it is also possible that data about the species in Western Europe lacks and its peculiarities in the eastern part of distribution area are not considered. Yet, we prefer first hypothesis.

**REFERENCES**


