

## A brief note on Slovak taxa of *Gentianella*

### Stručná poznámka k slovenským taxonům rodu *Gentianella*

Josef Holub

HOLUB J. (1983): A brief note on Slovak taxa of *Gentianella*. — Preslia, Praha, 55 : 371—373.

Two new nomenclatural combinations are proposed in *Gentianella*: *G. fatrensis* (BORB.) HOLUB and *G. amarella* subsp. *reussii* (TOCL) HOLUB. Brief information on taxonomy, nomenclature and distribution of the two taxa are added.

P.O.B. 25, Jindřichská 14, 111 21 Praha 1, Czechoslovakia.

When preparing an account on *Gentianella* for the “Flóra Slovenska”, all accessible material was newly revised. After the revision the following taxa have been distinguished in the flora of Slovakia:

*G. fatrae* (BORB.)

*G. lutescens* (VELEN.) HOLUB 1967

subsp. *lutescens*

subsp. *carpatica* (WETTST.) HOLUB 1967

subsp. *tatrae* (RONNIGER) HOLUB 1967

*G. amarella* (L.) BÖRNER 1912

subsp. *amarella*

subsp. *lingulata* (AGARDH) HOLUB 1967

subsp. *reussii* (TOCL)

Two reclassifications were made at the revision and this is the reason why at present two taxa in the above survey of Slovak members of *Gentianella* have not valid names in their new taxonomic positions. Therefore two following new combinations are proposed here:

*Gentianella fatrae* (BORB.) HOLUB, comb. nova. — Bas.: *Gentiana fatrae* BORBÁS, Oesterr. Bot. Zeitschr. 43 : 69, Wien 1893.

*Gentianella amarella* (L.) BÖRNER subsp. *reussii* (TOCL) HOLUB, status novus et comb. nova. — Bas.: *Gentiana reussii* TOCL, Sitzungs-Ber. Königl. Böhm. Ges. Wiss. Prag, Cl. math.-natur., 1900/27 : 13, 1901.

*Gentianella fatrae* (BORB.) HOLUB was usually given in the literature as *Gentiana* (or *Gentianella*) *austriaca* A. KERNER et J. KERNER, or was classified to this species as its variety or subspecies. Morphological differences are really minor and *G. fatrae* is without doubt very close to *G. austriaca* and represents its West Carpathian vicarious taxon. The differences may be summarized to three following points:

1. In contradistinction to the East Alpine *G. austriaca*, the West Carpathian taxon did not differentiate itself into seasonal races;

2. Calyx limbs are very long and narrow;
3. The West Carpathian taxon as a regional population of *G. austriaca* agg. is influenced from the side of *G. lutescens* (VELEN.) HOLUB, which species does not occur in northeastern Alps, from where *G. austriaca* was described.

Though no differentiation into seasonal races exists within this species, some variation may be found, what is in connection with geographical pattern of its distribution area, occurrence in various altitudes and genetic influence of *G. lutescens*. In the western part of its distribution area, *G. fatrae* occurs in lower altitudes (500—1000 m a.s.l.), the plants are high, with relatively short leaves and are branched only in their upper part; they resemble *Gentiana castanetorum* BORB. described from the eastern periphery of East Alps. In the Velká Fatra Mts. a full series of transitions between this morphotype to a mountain morphotype exists; the latter morphotype is represented by smaller and compact plants branched from the base and by somewhat smaller corolla. Very different plants of the mountain morphotype are dwarfish plants which have lost all important distinguishing features of the species. In the area to the North and East from the Velká Fatra Mts. the species occurs only as this mountain morphotype. In these regions as well as in the eastern part of the Velká Fatra Mts. populations of *G. fatrae* are genetically influenced by *G. lutescens* (which is much more distributed in this area than *G. fatrae*), in the Nízke Tatry Mts. and Západné Tatry Mts. mostly by its subsp. *tatrae*. Especially the differences in calyx characters disappear. Single individuals from local populations in the most eastern part of the distribution area of *G. fatrae* may be classed with this species sometimes only arbitrarily.

The name *Gentiana fatrae* BORB. was used in the literature in two taxonomic concepts: (1) for populations occurring in western periphery of the Velká Fatra Mts. only (from where the species was described); (2) for transitional types between *G. fatrae* and *G. lutescens* (but without any exclusion of the type of *G. fatrae*!) or for the two above mentioned cases together. This might evoke the opinion on ambiguity of that name. However, with regard to the non-exclusion of the type and with respect to the general false determination of all Slovak members of *Gentianella*, the name *Gentiana fatrae* BORBÁS 1893 cannot be rejected as an ambiguous name. The use of the name in the sense of its type amplified by inclusion of the evolutionary linked mountain morphotype is considered by the present author as taxonomically fully justified. Within this accepted circumscription also introgressants influenced by *G. lutescens* are included, i.e. such transitions between the two species being by their characters more close to *G. fatrae*.

In *Gentianella amarella* (L.) BÖRNER three subspecies may be distinguished: (1) the autumnal type subspecies — subsp. *amarella*; (2) the aestival subspecies — subsp. *lingulata* (AGARDH) HOLUB, (3) the until not distinguished monticole subspecies — subsp. *reussii* (TOCL) HOLUB. Among these subspecies, subsp. *amarella* is the most common one in Slovakia. The distribution areas of the two other subspecies are included within that of the type subspecies. Subsp. *lingulata* occurs mostly in the periphery areas of the Tatra Mts., especially in their eastern part. Subsp. *reussii* has been neglected till now. The plants of this subspecies are low, 2—10(—15) cm high, their stems are simple or branched, consisting only of 2—3 internodes, inflorescence with a few

flowers, the corolla of which is 14–22 mm long. Flowering time of this subspecies is in July and August. The known distribution is limited to the Belianské Tatry Mts., Nízke Tatry Mts. and to the Mt. Fačkovský Klak. At present, only six localities are known for this taxon. From the altitudinal viewpoint, the lowest locality is Tokáreň (Belianské Tatry Mts.) — 1200 m a.s.l., the highest one Králova hola (Nízke Tatry Mts. — the type locality) — 1550 m a.s.l.; perhaps an even higher occurrence might be found in the Belianské Tatry Mts.

#### SOUHRN

Na Slovensku se vyskytují 3 druhy rodu *Gentianella* MOENCH — *G. fatrae* (BORE.) HOLUB, *G. lutescens* (VELEN.) HOLUB a *G. amarella* (L.) BÖRNER. U dvou posledních druhů je známa diferenciace ve 3 rasy — aestivální, autumnální a montikolní; naproti tomu *G. fatrae* není takto rozlišena. Pro *G. fatrae* a montikolní rasu *G. amarella* bylo nutno navrhnout jména v nově přijatém taxonomickém hodnocení — *G. fatrae* (BORE.) HOLUB a *G. amarella* subsp. *reussi* (TOCL) HOLUB. *G. fatrae* je západokarpatský, morfologicky jen málo odlišný vikariant východoalpského druhu *G. austriaca*, evolučně a geograficky tvořící však význačnou jednotku, jejíž lokální populace v areálu druhu ve směru JZ–SV vytvářejí výraznou ekotopoklinu (výskyt ve stále vyšších nadmořských výškách s průběžnou změnou morfologických znaků); stejným směrem přibývá i ovlivnění populací introgresivními vlivy *G. lutescens*. *G. amarella* subsp. *reussi* byl přehlédnutý taxon, známý zatím pouze ze 6 lokalit ve výškách 1200–1550 m n. m., a to v Belianských a Nízkých Tatrách a na Fačkovském Klaku. Oba taxony představují mladé západokarpatské endemity (subsp. *reussi* možná endemita karpatského).

Received 20 April, 1983