

## Interpretation of selected species and nothospecies *Polygala* names published from Central Europe

Interpretace vybraných jmen druhů a hybridů z rodu *Polygala* zveřejněných na základě materiálů ze střední Evropy

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**K e y w o r d s:** nomenclature, typification, taxonomy, *Polygala*, Central Europe

Selected names of species and hybrids of the genus *Polygala* described from Central Europe are typified and/or discussed. *Polygala* × *skrivaneckii* Podpěra is shown to represent a hybrid of the *P. amarella* × *P. comosa* parentage, and should be used as a correct name for what has been called *P. × beckhausiana* Borbás. The name *P. wilhelmii* Podpěra represents a synonym of *P. comosa*. The other names discussed are *P. × persimilis* Beck (= *P. amara* s. l.), *P. montana* Opiz (= *P. vulgaris*), *P. mori* Brittinger ex Opiz and *P. moriana* Brittinger (both synonymous with *P. comosa*), and *P. reticulata* K. B. Presl (probably a form of *P. vulgaris*).

### Introduction

One of the tasks of a local taxonomic account is to interpret older names based on the material from the region. When writing the survey of the *Polygalaceae* for the Flora of the Czech Republic (cf. Hejný et Slavík 1990, 1992), I have come across a number of old names published from Bohemia, Moravia or Austria. Most of them have neither been typified nor correctly interpreted in modern botanical literature. In addition, there are several names intended to cover some presumed hybrids between the species of *Polygala* from this region.

I have studied the herbarium material deposited at PRC and BRNU in order to locate the type and/or authentic specimens allowing interpretation of these names. The results of this study are presented here.

As the fifth volume of the Flora of the Czech Republic will appear after a few years, I refer the reader to Heubl (1984) for a taxonomic and distribution account of *Polygala* in Central Europe. Heubl (1984:234-240) also summarized the most important points of the hybridization among the *Polygala* taxa. A discussion referring to *Polygala multicaulis* Tausch is included in a separate paper (Štěpánek et Kirschner, in prep.)

## A survey of the names

### *Polygala vilhelmii* Podpěra

Verh. Zool. Bot. Ges. Wien 54:330, 1904. - Holotypus: Hrabanov (Wilhelm 1902 BRNU); isotypus: 'Polabské kyselky. Hrabanov u Lysé n. L.' (J. Wilhelm 1902 PRC herb. typ. no. 896, ut *P. amarella* × *P. comosa*) = *Polygala comosa* Schkuhr.

The binomial was introduced to represent a hybrid between *P. amarella* and *P. comosa*. Although both presumed parental species are known to have coexisted at the type locality in the lowlands along the Labe River (Elbe), the holotype plant represents a typical *P. comosa*. On the isotype herbarium sheet (PRC), both presumed parental taxa are mixed.

Some of the characters given in the protologue of *P. vilhelmii* point to the hybrid origin of the plants. However, on both typoid specimens no trace of hybridity could be found on the basis of morphology of these plants.

### *Polygala* × *skrivanekii* Podpěra

Publ. Fac. Sci. Univ. Masaryk Brno 12:28, 1922, pro hybr. *P. vulgaris* × *P. uliginosa*. - Holotypus: 'In pratis ad fontem "U svaté" prope Kloboučky ad Bučovice urb.' (Podpěra 22. 5. 1921 BRNU 12245); isotypus: ibid., 12167. = *Polygala amarella* Crantz × *P. comosa* Schkuhr.

In additional herbarium sheets from the type locality, both real parents are found (but not the originally suspected parent, *P. vulgaris*). The holotype represents a plant with long bracts, elongated dense multiflorous inflorescence, which indicates the parentage of *P. comosa*, and very small capsules and well developed basal rosette pointing to the other parent. Hybrid status of the plant is documented by high sterility.

There are two additional names that are believed to belong to the above hybrid combination: *Polygala persimilis* Beck whose holotype represents in all likelihood *P. amara* subsp. *brachyptera*, and *P. × beckhausiana* Borbás (1892). The latter is reported to represent a hybrid between '*Polygala amara* var. *P. officinalis* Kitt.' and *P. comosa*. The var. *officinalis* has later been suggested to represent typical *P. amarella*, which is in contrary to the opinion of Borbás (l. c.) who gave *P. amarella* with correct description at another place of the quoted work, and described the var. *officinalis* as a robust plant with 4 mm wide capsule, i.e. features excluding *P. amarella*. In my opinion, the var. *officinalis* sensu Borbás may represent a *P. amara* form. The only locality mentioned by Borbás is "Auf Muschelkalk bei Höxter an der Weser in Westf., wo *P. comosa* und *P. officinalis* zusammenstehen, nach Beckh. fast überall." However, in the herbarium material from that region (cf. Heubl 1984:290, Höxter also cited) a slender morphotype of *P. amara* subsp. *brachyptera* (var. *amblyptera*) seems to prevail, and it is a better candidate for the 'amaroid' parent of *P. × beckhausiana*, judging from the Borbás descriptions of both var. *officinalis* and the hybrid. (It should be emphasized that the typification of var. *officinalis* Kittel has no importance for the interpretation of the binomial *P. × beckhausiana* Borbás, and only the type of the latter might answer the question more definitely.)

Thus, the name *Polygala* × *skrivanekii* should be accepted as correct for products of hybridization between *P. amarella* s.l. and *P. comosa*.

## *Polygala persimilis* G. Beck

Fedde Repert. Sp. Nov. 17:450, 1921, pro hybr. *P. amara* × *P. comosa*. - Holotypus: 'Nied. Öst. Brühl bei Mödling' (Rohrer in herb. Beck, sine dato, PRC, herb. typ. no. 897) = *Polygala amara* L. subsp. *brachyptera* (Chodat) Hayek.

The name is based on a very old single gathering from the Rohrer herbarium (almost surely collected before 1840). In spite of a detailed examination of the plant, I have failed to ascertain any feature indicating a hybrid origin of the plant. The holotype plant certainly belongs to the group of *P. amara*, probably to subsp. *brachyptera*. It is in an early flowering stage and that is why it has a relatively pyramidal shape of inflorescence - a feature that might have led G. Beck to suggest the hybrid nature of the plant.

## *Polygala reticulata* K. B. Presl

In J. S. Presl et K. B. Presl Delic. Prag., 228, 1822. - Lectotypus (hoc loco): 'fl. čechica' ([K. B. Presl] sine dato, PRC, herb. typ. no. 898) = *Polygala vulgaris* L.

*Polygala reticulata* poses the most intricate problems among the names examined. A specimen is located in the herbarium PRC that undoubtedly represents the type of the name. The single specimen consists of a part of flowering stem. Flowers are blue, the overall appearance of the inflorescence corresponds to that of *P. vulgaris*. On the other hand, leaves are notably narrow, and bracts are relatively elongated, usually ± as long as the pedicels. In my opinion, it is most probable that the plant represents an aberrant form of *P. vulgaris*. There is no satisfactory evidence for the assumption that *P. reticulata* belongs to the hybrid between *P. comosa* and *P. vulgaris*. The very fact of spontaneous hybridization between these two taxa has not been sufficiently documented (see also Heubl 1984).

## *Polygala montana* Opiz

Flora, Regensburg, 5:270, 1822, through a reference to André's Hesperus, n. v. - Lectotypus: 'Töpliz' (Opiz sine dato, PR, cf. Heubl 1984; isotypus: PRC, herb. typ. no. 899) = *Polygala vulgaris* L.

The type and isotype plants represent a very typical *Polygala vulgaris* subsp. *vulgaris* plant. The only problem that remains to be solved is purely bibliographical: the correct publication time and place.

## *Polygala mori* Brittinger ex Opiz

Naturalientausch 11:307, 1826 (I.-VI.). - Holotypus: 'Linz Oberösterreich' (Brittinger sine dato, PRC, herb. typ. no. 900) = *Polygala comosa* Schkuhr.

Brittinger sent a specimen of what he called '*Polygala mori* mihi' to Opiz on exchange in 1825, and Opiz promptly published the name with all Brittinger's accompanying remarks in the Naturalientausch (obviously without notifying the original author). In the meantime, Brittinger submitted a description based on the same collection (but another specimen), with the same notes, to Flora, Regensburg, and he (or someone else) changed the original form of the name to *Polygala moriana*. The latter name was published in Flora, Regensburg,

9/2 (no. 45): 729, 1826, Dec. 14. Although based on the same collection, both names are to be considered valid and legitimate synonyms of *P. comosa*.

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## Souhrn

V článku jsou diskutována jména druhů a hybridů z rodu *Polygala* popsáných z území střední Evropy. Jméno *Polygala* × *skrivanekei* Podpěra se zakládá na hybridní kombinaci *P. amarella* × *P. comosa* a představuje správné jméno pro taxon dosud v literatuře označovaný jako *P. × beckhausiana* Borbás. Jméno *P. wilhelmii* Podpěra je synonymem pro *P. comosa*. Dále jsou probrána jména *P. × persimilis* Beck (odpovídá *P. amara* s. l.), *P. montana* Opiz (totožné s *P. vulgaris*), *P. mori* Brittinger ex Opiz a *P. moriana* Brittinger (obě jsou synonymní s *P. comosa*) a *P. reticulata* K. B. Presl (vztahující se pravděpodobně k formě druhu *P. vulgaris*).

## References

- Borbás V. (1892): Polygaleen. - In: Hallier E. et Wohlfarth R., W. D. J. Koch's Synopsis der Deutschen und Schweizer Flora 1:230-262.
- Heubl G. R. (1984): Systematische Untersuchungen an mitteleuropäischen *Polygala*-Arten. - Mitt. Bot. Staatssamml. München 20:205-428.
- Hejný S. et Slavík B. [red.] (1990 et 1992): Květena ČR, Vol. 2 et 3. Academia, Praha. [540 et 542 p.]
- Štěpánek J. et Kirschner J. (in prep.): *Polygala multicaulis* Tausch. - In: Štěpánek J., Fragmenta Tauschiana 2., Preslia, Praha, 6X:000-000.

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