



Review of nomenclatural notes in the European Gesneriaceae

Nevena KUZMANOVIĆ^{*1}, Snežana VUKOJIČIĆ¹, Arne STRID², Vladimir STEVANOVIĆ¹

1 Institute of Botany and Botanical garden Jevremovac, Faculty of Biology, University of Belgrade, Takovska 43, 11000 Belgrade, Serbia

2 Bakkevej 6, DK-5853 Ørbæk, Denmark

ABSTRACT: In this paper the nomenclatural issues regarding all representatives of the family Gesneriaceae in Europe are discussed. The type for the generic name *Ramonda* is confirmed, the typification of *Jankaia heldreichii* is corrected, and information is provided for already validly-typified species names regardless of their current taxonomic status.

KEY WORDS: Gesneriaceae, Europe, nomenclature, typification

Received: 15 May 2014

Revision accepted 01 October 2014

UDK 581.961

INTRODUCTION

The family Gesneriaceae in Europe is represented by 5 species within 2 monotypic and 1 oligotypic genera. The oligotypic genus *Ramonda* Rich. consists of three species: *R. myconi* (L.) Rchb. which is endemic to the Iberian Peninsula, and the Balkan endemics *R. nathaliae* Pančić & Petrović and *R. serbica* Pančić. The two monotypic genera *Haberlea* Friv. (*H. rhodopensis* Friv.) and *Jankaia* Boiss. (*J. heldreichii* (Boiss.) Boiss.) are present only in the Balkan Peninsula, the same as *Ramonda nathaliae* and *R. serbica* (Figure 1 – Balkan endemic species of the Gesneriaceae family). All European representatives of Gesneriaceae are considered to be Tertiary relicts (KOŠANIN 1921, 1923; MEYER 1970; TROUT 1994; DUBREUIL *et al.* 2008).

Within the European taxa of the family Gesneriaceae, the following species names are typified: *Haberlea rhodopensis*, *H. ferdinandi-coburgii*, *Jankaia heldreichii*, *Ramonda myconi*, *R. nathaliae* and *R. serbica*. However, the typification of *J. heldreichii* was not correct. Taking this into account, the main aim of this paper is to provide information on the typification of the generic name *Ramonda* and to correct the typification of *Jankaia heldreichii*. Also, additional information is given for

species names which have already been validly typified, as well as pictures of the type specimens that are not published or available online.

MATERIALS AND METHODS

Various European herbaria (BEO, BEOU, BP, G, GOET, GZU, K, S, SOM, W, WU; acronyms follow THIERS 2014) were consulted in the search for and study of original material for the species names listed in results and discussion.

RESULTS AND DISCUSSION

Ramonda Rich. *nom. cons.* in PERSOON (1805: 216)

Typus: *Ramonda myconi* (L.) Rchb. (image available at: <http://linnean-online.org/1839/>)

Note: Richard (in PERSOON 1805: 216) described the genus *Ramonda* (Gesneriaceae) mentioning only one species – *R. pyrenaica*. According to Article 10.1 of the Code (MCNEILL *et al.* 2012), the type of the genus name is the same as the type of the species name. However, in the synonymy, Richard cited *Verbascum myconi* (LINNAEUS 1753: 179), in this way including its type (Art. 52.2). As he did not make the new combination in the genus *Ramonda*,

*correspondence: nkuzmanovic@bio.bg.ac.rs

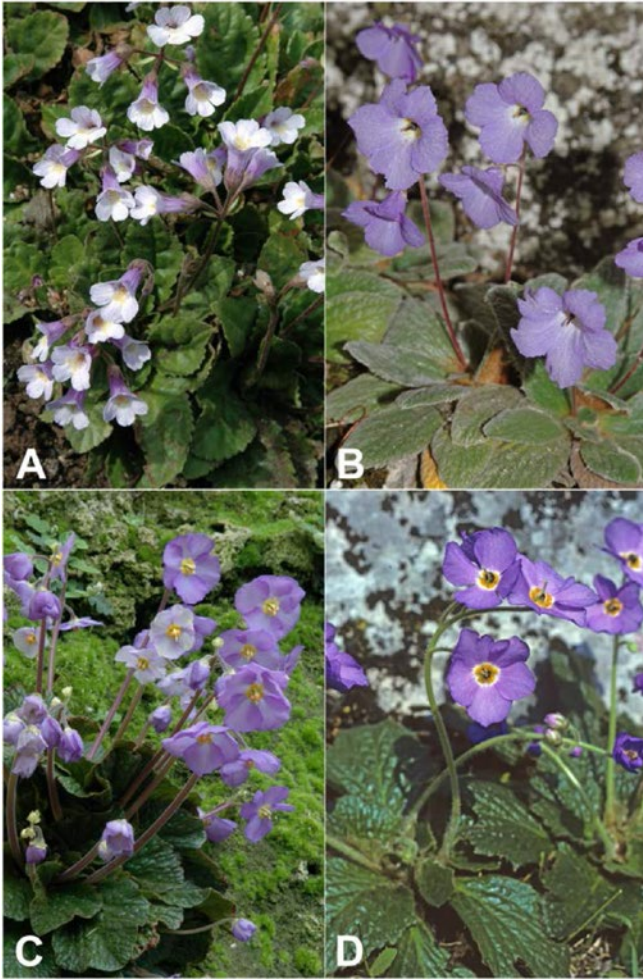


Figure 1. The Balkan endemics of the family Gesneriaceae: A. *Haberlea rhodopensis* Friv. (cultivated in Göteborg Botanical Garden, unknown origin); B. *Jankaea heldreichii* (Boiss.) Boiss. (Pierias: Mt Olympus, Enipeas valley); C. *Ramonda nathaliae* Pančić et Petrović (Almopias: Ravine NW of Loutra Arideas); D. *R. serbica* Pančić (Dodonis: Near the Vikos balcony NNE of the village of Monodendri). Photo: A. Strid.

using the available epithet “myconi”, the published name *R. pyrenaica* is illegitimate (Art. 52.1). The legitimate new specific combination *Ramonda myconi* (L.) Rchb. was established later by REICHENBACH (1831: 388). Therefore, the type for the generic name *Ramonda* is the type of the name *Verbascum myconi* \equiv *Ramonda myconi* which was lectotypified by FERRER-GALLEGÓ & MIEDES-MARQUÉS (2013). The generic name was conserved in the Appendix IIIA of the Saint Louis Code (GREUTER *et al.* 2000), where the citation of the type for the genus name was also published: “*Ramonda* Rich. in Persoon, Syn. Pl. 1: 216. 1 Apr–15 Jun 1805 [Gesner.]. Typus: *R. pyrenaica* Pers., nom. illeg. (*Verbascum myconi* L., *R. myconi* (L.) Rchb.). International Code of Botanical Nomenclature (Saint Louis Code), Electronic version”.

Jankaea heldreichii (Boiss.) Boiss. (BOISSIER 1875: 5)

Basionym: *Haberlea heldreichii* Boiss. (BOISSIER 1856: 141)

Lectotype (designated by STRID 1991: 262): [Greece] In rupibus reg. sylvaticae m. Olympi Thessaliae, 21-24 Jul. 1851, T. Heldreich 2499 (G 00334008!, a single specimen mounted on two herbarium sheets -1/2 and 2/2). Figure 2.

Note: The name *Jankaea heldreichii* was typified by STRID (1991: 262). The holotype that was cited is the material deposited in herbarium G-Boissier, collected between 21st and 24th July 1851 by Heldreich (coll. no. 2499). However, in the protologue for the basionym *Haberlea heldreichii*, BOISSIER (1856) did not mention any particular collector number nor the exact collecting date, stating merely that material in fruit was collected by Heldreich on Mt. Olympus at the end of July 1851. As Boissier did not make any specific designation (e.g., by citing the collector number, or emphasizing that only one specimen was seen) at the time of the original publication of the taxon name, the holotype for the name could not be established (Art. 9.1. Note 1, McNEILL *et al.* 2012). We found another specimen collected by Heldreich on Mt. Olympus at the end of July 1851 (21-24.7.), which undoubtedly belongs to original material for the name *H. heldreichii* (GOET 003923!). The two mentioned specimens are syntypes (Art. 9.5), from which only a lectotype (Art. 9.2) can be designated. Therefore, the “holotype” cited by STRID (1991: 262) must be considered as lectotype (Art. 9.9, McNEILL *et al.* 2012).

The remaining species names that have already been validly typified are the following:

Haberlea rhodopensis Friv. (FRIVALDSZKY 1835: 249)

Lectotype (designated by SZELAG & SOMLYAY 2009: 557): [Bulgaria] *Ramondia pyrenaica* Genus? *Haberlea* Rodoppe Frivaldszky [original label in Frivaldszky’s own handwriting] *Haberlea rhodopensis* [manu Janka] Ex herb. J. Sadler (BP 30170!)

Haberlea ferdinandi-coburgii Urum. (URUMOV 1902: 573) \equiv *Haberlea rhodopensis* Friv. var. *ferdinandi-coburgii* (Urum.) Mark. (MARKOVA 1995: 290)

Lectotype (designated by MARKOVA 1995: 290): In fissuris rupium calcareum ad Loveč leg. a. 1902 (SOM 69796!, image available at http://www.nmnh.com/images/enatura/photos-types/1200/som/img_0341.jpg)

Ramonda myconi (L.) Rchb. (REICHENBACH 1831: 388)

Basionym: *Verbascum myconi* L. (LINNAEUS 1753: 179)

Lectotype (designated by FERRER-GALLEGÓ & MIEDES-MARQUÉS 2013: 155): Herb. Linn. No. 242.9 (LINN) (image available at: <http://linnean-online.org/1839/>).

Ramonda nathaliae Pančić & Petrović (in PETROVIĆ 1882: 574)

Lectotype (designated by STRID 1991: 261): In rupestribus

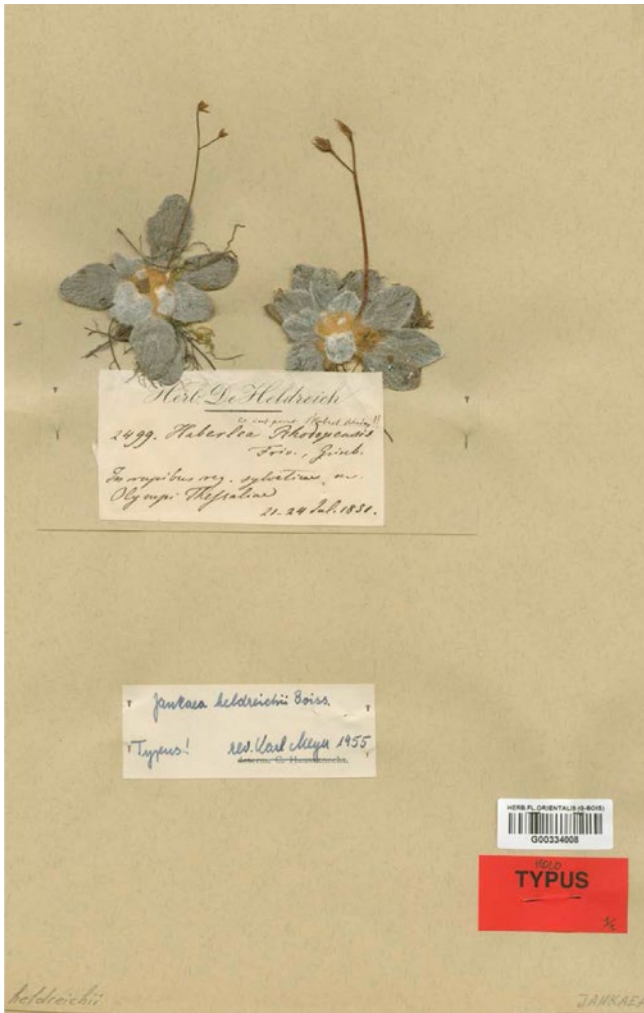


Figure 2. Lectotype of *Jankaea heldreichii* (Boiss.) Boiss. (G 00334008!).



Figure 3. Lectotype of *Ramonda nathaliae* Pančić & Petrović (G 00365719!).

calcareis supra Jelašnica Serb. [Serbia] orient. [orientalis] 5 [May] 1879, *S. Petrović s.n.* (G 00365719!, Figure 3).

Syntypes: In rupestribus calcar. [calcareis] m. [monte] Suva planina, Serb. [Serbia] oriental. [orientalis] Majo [May] 1879, *S. Petrović s.n.* (S11–10311!, image available at <http://andor.nrm.se/kryptos/fbo/kryptobase/large/S11-010001/S11-10311.jpg>); Yelaschnitza [Jelašnica] près de Nisch [Niš], Mai [May] 1879, *S. Petrović s.n.* (G 00386067!). The name for the newly-described species was given by Petrović and Pančić in honour of the queen Natalija Obrenović (1859–1941).

Ramonda serbica Pančić (PANČIĆ 1874: 498)

Lectotype (designated by SZELAG & SOMLYAY 2011: 77): *Ramondia serbica* Panč. [manu Janka] *Haberlea rhodopensis* Friv. In rupestr. calc. M. Rtanj S. [Serbia] a. [australis] Maj 1847 Pančić (BP 301401) [original label in Pančić's own handwriting supplemented by Janka]

Syntype: Serbia, Pleš, in rupestribus, *J. Pančić s.n.* (BEOU 8137!)

Acknowledgements — We acknowledge the financial support provided by the Serbian Ministry of Education, Science and Technological Development (project no. 173030). We are grateful to Duilio Iamonico (Rome) for help with some nomenclatural matters and Dmtar Lakušić (Belgrade) for help with literature searching. Many thanks to curators of the Herbaria G (Dr Laurent Gautier) and GOET (Dr. Marc Appelhans) for providing the images of the studied type material and permission to reproduce them in this work.

REFERENCES

- BOISSIER E. 1856. *Diagnoses Plantarum Orientalium novarum. Series Secunda*, No. 3, 177 pp. Lipsiae: Apud B. Herrmann, Leipzig, Germany.
- BOISSIER E. 1875. *Flora orientalis sive enumeratio plantarum in oriente a Graecia et Aegypto ad Indiae fines*, vol. 4 pars 1. H. Georg, Genavae et Basileae.

- DUBREUIL M, RIBA M & MAYOL M. 2008. Genetic structure and diversity in *Ramonda myconi* (Gesneriaceae): effects of historical climate change on a preglacial relict species. *Am. J. Bot.* **95**(5): 577–587.
- FERRER-GALLEGO PP & MIEDES-MARQUÉS E. 2013. Typification of *Ramonda myconi* (L.) Rchb. (Gesneriaceae). *Webbia* **68**(2): 155–156.
- FRIVALDSZKY I. 1835. Közlések a' Balkány' vidékén tett természettudományi utazásról. *Magyar Tud. Társ. Évk.* **2**: 235–276.
- GREUTER W, MCNEILL J, BARRIE FR, BURDET H-M, DEMOULIN V, FILGUEIRAS TS, NICOLSON DH, SILVA PC, SKOG JE, TREHANE P, TURLAND NJ & HAWKSWORTH DL. 2000. International Code of Botanical Nomenclature (St Louis Code). *Regnum Vegetabile* 138. Koeltz Scientific Books, Königstein.
- KOŠANIN N. 1921. La distribution géographique des deux espèces de *Ramondia* du Balkan. *Glas. Srp. kr. Akad.* **101**: 34–49.
- KOŠANIN N. 1923. Život tercijarnih biljaka u današnjoj flori. *Glas. Srp. kr. Akad.* **107**: 1–13.
- LINNAEUS C. 1753. *Species Plantarum*. Laurentius Salvius, Tomus I, 560 pp, Stockholm, Sweden.
- MARKOVA M. 1995. *Haberlea* Friv. In: KOŽUHAROV SI & KUZMANOV BA. (eds.). *Flora Reipublicae Bulgaricae* 10: 289–290. Bulgarian Academy of Sciences, Sofia.
- MCNEILL J, BARRIE FR, BUCK WR, DEMOULIN V, GREUTER W, HAWKSWORTH DL, HERENDEEN PS, KNAPP S, MARHOLD K, PRADO J, PRUD'HOMME VAN REINE WF, SMITH GF, WIERSEMA JH & TURLAND NJ. 2012. International Code of Nomenclature for algae, fungi, and plants (Melbourne Code) adopted by the Eighteenth International Botanical Congress Melbourne, Australia, July 2011. [*Regnum Vegetabile* 154]. Gantner, Ruggell, 240 pp.
- MEYER FK. 1970. Gesneriaceae als Glieder der Flora des Tertiär in Europa. *Wiss Z Friedrich-Schiller-Univ Jena. Math-Naturwiss. Reihe.* **19**:401–411.
- PANČIĆ J. 1874. *Flora Kneževine Srbije*. Kraljevsko–srpska državna štamparija, Beograd.
- PERSOON CH. 1805. *Synopsis plantarum, seu Enchiridium botanicum, complectens enumerationem systematicam specierum hucusque cognitarum*. 558 pp. Parisiis Lutetiorum: C.F. Cramerum.
- PETROVIĆ S. 1882. *Flora okoline Niša*. Kraljevsko–srpska državna štamparija, Beograd.
- REICHENBACH L. 1831. *Flora Germanica excursoria*. Carolum Cnobloch, Lipsiae, pp. 446.
- STRID A. 1991. Gesneriaceae. In: STRID A & TAN KIT (eds.), *Mountain flora of Greece* 2: 258–263. Edinburgh Univ. Press, Edinburgh.
- SZELAG Z & SOMLYAY L. 2009. History of discovery and typification of *Haberlea rhodopensis* Friv. (Gesneriaceae). *Ann. Bot. Fennici* **46**: 555–558.
- SZELAG Z & SOMLYAY L. 2011. Lectotypification of *Ramonda serbica* Panč. (Gesneriaceae). *Acta soc. bot. Pol.* **80**(1): 77–78.
- THIERS B. 2014. continuously updated. *Index Herbariorum: A global directory of public herbaria and associated staff*. New York Botanical Garden's Virtual Herbarium. The New York Botanical Garden. Available from: <http://sweetgum.nybg.org/ih/> (accessed 10 July 2014).
- TROUT D. 1994. Alpine gesneriads. *Gloxinian* **44**(6):10–19.
- URUMOV IK. 1902. *Plantae novae bulgaricae*. *Period. Spis. Bulg. Kniž. Druž.* **63**: 573.

REZIME

Pregled nomenklaturnih beleški evropskih predstavnika porodice Gesneriaceae

Nevena KUZMANOVIĆ, Snežana VUKOJIČIĆ, Arne STRID, Vladimir STEVANOVIĆ

Uradu su razmatrane nomenklaturne teme koje se tiču svih predstavnika porodice Gesneriaceae u Evropi. Tipiski primerak za ime roda *Ramonda* je potvrđen, tipifikacija imena *Jankaia heldreichii* je ispravljena, a date su informacije i za prethodno validno tipifikovana imena vrsta bez obzira na njihov trenutni taksonomski status.

Ključne reči: Gesneriaceae, Evropa, nomenklatura, tipifikacija