

Eleocharis palustris subsp. *waltersii*, a new name for *E. palustris* subsp. *vulgaris*

Eleocharis palustris subsp. *waltersii*, nové jméno pro *E. palustris* subsp. *vulgaris*

Petr Bureš¹ & Jiří Danihelka^{1,2}

¹Masaryk University, Faculty of Science, Department of Botany and Zoology, Kotlářská 2, CZ-611 37 Brno, Czech Republic, e-mail: bures@sci.muni.cz, danihel@sci.muni.cz;

²Institute of Botany, Department of Ecology Brno, Academy of Sciences of the Czech Republic, Poříčí 3b, CZ-603 00 Brno, Czech Republic

Bureš P. & Danihelka J. (2008): *Eleocharis palustris* subsp. *waltersii*, a new name for *E. palustris* subsp. *vulgaris*. – Preslia 80: 225–228.

The frequently used subspecific name *Eleocharis palustris* subsp. *vulgaris* Walters (1949) is a later homonym of *E. palustris* var. *vulgaris* Čelak. (1867), so a replacement name, *E. palustris* subsp. *waltersii*, is proposed here. *Eleocharis palustris* var. *vulgaris* Čelak. is neotypified here with a modern specimen with $2n = 38$, making it a taxonomic synonym of *E. palustris* subsp. *waltersii* or *E. vulgaris* “(Walters) Á. Löve et D. Löve”.

Key words: botanical nomenclature, infraspecific taxa, neotype, S. M. Walters, L. J. Čelakovský

Working on the treatment of the genus *Eleocharis* for the Flora of the Czech Republic, the first author decided to treat the taxon known as *E. vulgaris* “(Walters) Á. Löve et D. Löve” as subspecies of *E. palustris* (L.) Roem. et Schult. However, a nomenclatural analysis has shown that the use of the corresponding name, *E. palustris* subsp. *vulgaris* Walters, is impossible for nomenclatural reasons. The problem is described and its solution is proposed in this paper.

Walters (1949: 194) recognized and named two subspecies within *Eleocharis palustris*, *E. palustris* subsp. *microcarpa* Walters with $2n = 16$ and *E. palustris* subsp. *vulgaris* Walters with $2n = 38$. As the lectotype of the name *Scirpus palustris* L. had not been designated at that time, both names should be considered as validly published (McNeill 2006: Art. 26.2 Ex. 4). Löve (1951: 270) recommended that *E. palustris* subsp. *vulgaris* ($2n = 38$) “should be regarded as being conspecific with *E. palustris* (L.) Roem. et Schult., as described by Linnaeus (1753) from Swedish material” and therefore referred to as *E. palustris* subsp. *palustris* (McNeill et al. 2006: Art. 26.2). This recommendation was followed by Clapham et al. (1952, 1958), Podlech (1960), Holub (1960), Lewis & John (1961: 433), and Hess et al. (1967). However, Strandhede (1960) did not find any specimen of *E. palustris* subsp. *vulgaris* suitable for the lectotypification of the name *S. palustris* L. in the Linnaean herbarium. Therefore, he designated as lectotype a specimen from Loefling’s Spanish collection (Loefling 36, Herb. Linn. s.n., S) with an identification label written by Linnaeus: according to stomatal length it corresponds to the 16-chromosomal cytotype. So the name *E. palustris* subsp. *microcarpa* became incorrect and had to be replaced by the autonym (McNeill et al. 2006: Art. 11.6).

Neither Walters (1949) nor Strandhede (1960) were aware that the name *Eleocharis palustris* subsp. *vulgaris* Walters is a later homonym of *E. palustris* var. *vulgaris* Čelak. (Prodr. Fl. Böhm. 1: 77. 1867; “*Heleocharis palustris* R. Br. α *vulgaris*”; cf. McNeill et al. 2006: Art. 53.4)¹. The rank of this name marked by a Greek letter is a variety, not a subspecies, as clearly indicated by Čelakovský (1867: VII) in the Preface to his Prodr. der Flora von Böhmen and later analysed by Domin (1948) and Holub (1979). Based on an analysis of the varietal names in the first volume of the Prodr. (Čelakovský 1867), we believe that the epithet “*vulgaris*” was not intended to denote “the taxon containing the type of the name of the next higher taxon”, so the name should not be considered as not validly published (cf. McNeill et al. 2006: Art. 24.3). Čelakovský preferred (with some exceptions) the epithet “*genuinus*”² in subspecies names for this purpose, which can be documented by many infraspecific classifications in the Prodr. (e.g., Čelakovský 1867: 7, 10, 14, etc.). As for varietal names, at least in the first volume of the Prodr. he usually did not consider any variety “typical”, as can be demonstrated by numerous infraspecific classifications (see *Potamogeton pusillus* and *P. gramineus* for instance). The epithet “*vulgaris*”, used here six times, was intended to denote abundance, i.e., the most common variety³. The epithet is not listed in Art. 24.3 of the Code (McNeill et al. 2006) among the examples of those used in names that must be considered not validly published unless they are autonyms. Our opinion is further supported by the fact that each variety is provided with a description; Čelakovský (1871) changed his method and typographic arrangement in the second volume of the Prodr., where sometimes the “typical” variety was denoted “ α ” without any epithet or description or even being referred to as “*genuinus*” (o. c., p. 243).

As far as the taxonomic identity of *Eleocharis palustris* var. *vulgaris* is concerned, the brief protologue contains no valuable information, so we tried to locate some original material. However, an examination of the *Eleocharis* (and *Scirpus* p.p.) collections in Czech herbaria yielded only five herbarium specimens identified as *E. palustris* var. *vulgaris* (one at PRC and another four at PR), but none of them was either collected or identified by L. J. Čelakovský⁴. Therefore, no specimen suitable for lectotypification is available, and a neotype has to be proposed (McNeill et al. 2006: Art. 9.11). As Čelakovský (1867, 1868) gave no locality for *E. palustris* var. *vulgaris* or *Scirpus palustris* var. *vulgaris*, respectively, it was not possible to search for plants from the locus classicus. So we are proposing a modern specimen with known chromosome number $2n = 38$, making it taxonomically equivalent to the taxon described by Walters (1949) as *E. palustris* subsp. *vulgaris* or to *E. vulgaris* “(Walters) Á. Löve et D. Löve”. This solution will make possible the use of the epithet “*vulgaris*” at varietal rank at least. However, we consider the rank of subspecies to be appropriate for this taxon, and this presents a nomenclatural problem: a rejection of Čelakovský’s name (McNeill et al. 2006: Art. 56.1) would not solve the problem as Walters’s illegitimate name, because it is at the rank of subspecies, cannot be conserved

¹ In the later Czech language version of the Prodr., Čelakovský (1868) included *Eleocharis* within *Scirpus* s. l. Therefore, he proposed a combination in *Scirpus*, *Scirpus palustris* L. var. [α] *vulgaris* (Čelak.) Čelak. Prodr. Květ. České 1: 74. 1868 (cf. McNeill et al. 2006: Art. 33.3).

² Čelakovský (1879) used the epithet “*genuinus*” when referring to the “typical” subspecies in *Scirpus* [= *Eleocharis*] *palustris* subsp. *genuinus* Čelak. (Anal. Květ. Česká: 99. 1879, nom. inval.).

³ Walters (1949: 194) probably used the epithet *vulgaris* with the same intent (see also p. 200).

⁴ This may be explained by the fact that he attached little importance to taxa below the rank of subspecies (Čelakovský 1867: VII, 1868: VII, Domin 1948: 2).

(McNeill et al. 2006: Art. 14.1), and at the same time, the name *E. palustris* var. *vulgaris* Čelak. cannot be raised to subspecific rank because it would result in a later homonym of the name *E. palustris* subsp. *vulgaris* Walters (McNeill et al. 2006: Art. 53 Note 1, Art. 53.4). Another apparent (but false) solution might be to neotypify *E. palustris* var. *vulgaris* Čelak. with the same type as that of *E. palustris* subsp. *vulgaris* Walters, thereby rendering the two names homotypic, which would seem to make Art. 53.4 no longer applicable. However, such typification is useless under the provisions of this Code as it clearly states (McNeill 2006: Art. 6.4): “A name which according to this Code was illegitimate when published cannot become legitimate later unless it is conserved or sanctioned.” Therefore, a nomen novum, *E. palustris* subsp. *waltersii*, is proposed here for *E. palustris* subsp. *vulgaris*. Also, the authorship of the name *E. vulgaris* has to be corrected to “Á. Löve et D. Löve” as the name should be considered a nomen novum, validated by the reference to the Latin diagnosis and type of Walters’s illegitimate name (McNeill 2006: Art. 58.1).

***Eleocharis palustris* subsp. *waltersii* Bureš et Danihelka, nomen novum**

≡ *E. palustris* subsp. *vulgaris* Walters in J. Ecol. 37: 194. 1949, nom. illeg. [McNeill et al. 2006: Art. 53.4]. Typus: Britannia, “In pratis humidis, Hauxton, Cambs. 21.VII.46, S. M. Walters” (CGE, non vidimus; Walters in J. Ecol. 37: 194, 1949).

≡ *Eleocharis vulgaris* Á. Löve et D. Löve in Folia Geobot. Phytotax. 10: 275. 1975 [“(Walters) Á. Löve et D. Löve”].

= *Eleocharis palustris* var. *vulgaris* Čelak. Prodr. Fl. Böhm. 1: 77. 1867 [“*Heleocharis palustris* R. Br. α *vulgaris*”]. Neotypus (**hic designatus**), “Bohemia, Herálec (distr. Žďár nad Sázavou): ad ripam piscinae parvae in parte pagi Familie dicta, 650 m s. m. 16. IX. 2007, Petr Bureš” (BRNU; duplicati: PR, PRC, W et WU), non *E. palustris* subsp. *vulgaris* Walters in J. Ecol. 37: 194. 1949, nom. illeg. [McNeill et al. 2006: Art. 53.4].

≡ *Scirpus palustris* var. *vulgaris* (Čelak.) Čelak. Prodr. Květ. Česk 1: 74. 1868 [*Scirpus palustris* L. α *vulgaris*].

E t y m o l o g y: The epithet commemorates Stuart Max Walters (23 May 1920 – 11 December 2005), an outstanding British botanist.

Note: Some authors, e.g. Smejkal (1980: 139), Májovský et al. (1987: 364), and Grulich (in Marhold & Hindák 1998: 452), have ascribed the combination *Eleocharis vulgaris* to “(Walters) Á. Löve, D. Löve et Sušnik”. They may have adopted this authorship from the Cytotaxonomical Atlas of the Slovenian Flora where this name was mentioned in primitive computer typeface as “ELEOCHARIS R.BR. VULGARIS (S.M.WALTERS) LOEVE/LOEVE/SUSNIK” (Löve & Löve 1974: 139), but without any reference to the basionym, which therefore cannot be considered valid publication (cf. McNeill et al. 2006: Art. 33.4). In the References of the Atlas, a manuscript was cited, “Loeve,A./Loeve,D./Susnik,F. 1973. Nomenclatural adjustments in the Yugoslavian flora. I. Some monocotyledons from Slovenia. Scopolia 1, (in press)⁵” but it has never been published. The valid publication of the new combination *Eleocharis vulgaris* was effected a year later (cf. Löve & Löve 1975).

Acknowledgements

The work was supported by the Czech Science Foundation (research projects GA ČR 206/04/0786 and GA ČR 206/07/0706) and by the Ministry of Education of the Czech Republic (long time research projects MSM0021622416, LC06073 and AV0Z60050516). R. K. Brummitt (Kew), W. Greuter (Berlin), K. Marhold

⁵ The first volume of the journal Scopolia was issued in 1978.

(Bratislava, Prague) and J. Štěpánek (Prague) provided us useful advice on nomenclatural matters. We also thank to J. Kirschner, Z. Pouzar and two anonymous reviewers for their valuable comments.

Souhrn

Často používané jméno *Eleocharis palustris* subsp. *vulgaris* Walters (1949) představuje pozdní homonymum jména *E. palustris* var. *vulgaris* Čelak. (1867). Vzhledem k tomu, že Mezinárodní kód botanické nomenklatury neumožňuje jiné řešení, navrhuje zde pro taxon dosud známý jako *E. palustris* subsp. *vulgaris* náhradní jméno *E. palustris* subsp. *waltersii*. Současně vybíráme neotyp jména *E. palustris* var. *vulgaris*: jde o nový herbářový doklad z populace s chromosomovým počtem $2n = 38$, která taxonomicky odpovídá rostlinám dosud označovaným jako *E. palustris* subsp. *vulgaris* nebo *E. vulgaris* “(Walters) Á. Löve et D. Löve” (1975).

References

- Clapham A. R., Tutin T. G. & Warburg E. F. (1952): Flora of the British Isles. – Cambridge Univ. Press., Cambridge.
- Clapham A. R., Tutin T. G. & Warburg E. F. (1958): Flora of the British Isles. Corr. Repr. Ed. 1. – Cambridge Univ. Press., Cambridge.
- Čelakovský L. (1867): Prodrómus der Flora von Böhmen. Vol. 1. – Arch. Naturwiss. Landesdurchforsch. Boehm., sect. 3a, 1: I–VIII + 1–112.
- Čelakovský L. (1868): Prodrómus květeny české. Vol. 1. [Prodrómus of the Bohemian Flora Vol. 1.]. – Arch. pro Příroved. Výzkum Čech, sect. 3a, 1: I–VIII + 1–109.
- Čelakovský L. (1871): Prodrómus der Flora von Böhmen. Vol. 2. – Arch. Naturwiss. Landesdurchforsch. Boehm., sect. 3a, 2: 113–388.
- Čelakovský L. (1879): Analytická květena česká [Analytical flora of Bohemia]. – F. Tempsky, Praha.
- Domin K. (1948): Subspecie české flóry, rozlišené Lad. Čelakovským v jeho „Prodrómu“ (1867–1883) [Subspecies of the Bohemian flora recognized by Lad. Čelakovský in his “Prodrómus”]. – Věstn. Král. Čes. Společ. Nauk 1947/2: 1–38.
- Hess H. E., Landolt E. & Hirzel R. (1967): Flora der Schweiz. Vol. 1. – Birkhäuser Verl., Basel & Stuttgart.
- Holub J. (1960): Nové nebo méně známé rostliny květeny ČSSR [New and less known plants of the Czechoslovak flora]. – Preslia 32: 423–425.
- Holub J. (1979): A note on the nomenclature of *Spergularia echinosperma*. – Preslia 51: 239–245.
- Lewis K. R. & John B. (1961): Hybridisation in a wild population of *Eleocharis palustris*. – Chromosoma 12: 433–448.
- Linnaeus C. (1753): Species plantarum. Ed. 1. – Impensis Laurentii Salvii, Holmiae.
- Löve Á. (1951): Taxonomical evaluation of polyploids. – Caryologia 3: 262–284.
- Löve Á. & Löve D. (1974): Cytotaxonomical atlas of the Slovenian flora. – J. Cramer, Leutershausen.
- Löve Á. & Löve D. (1975): Nomenclatural adjustments in some European Monocotyledons. – Folia Geobot. Phytotax. 10: 271–276.
- Májovský J., Murín A., Feráková V., Hindáková M., Schwarzová T., Uhríková A., Váchová M. & Záborský J. (1987): Karyotaxonomický prehľad flóry Slovenska [A karyotaxonomical survey of the Slovak flora]. – Veda, Bratislava.
- Marhold K. & Hindák F. (1998): Checklist of non-vascular and vascular plants of Slovakia. – Veda, Bratislava.
- McNeil J., Barrie F. R., Burdet H.-M., Demoulin V., Hawksworth D. L., Marhold K., Nicolson D. H., Prado J., Silva P. C., Skog J. E., Wiersma J. H. & Turland N. J. (2006): International Code of Botanical Nomenclature (Vienna Code). – Regn. Veg. 146, Gantner Verlag, Ruggell.
- Podlech D. (1960): Die Arten der *Eleocharis palustris*-Gruppe in Bayern. – Ber. Bayer. Bot. Ges. 33: 105.
- Smejkal M. (1980): Komentovaný katalog moravské flóry [An annotated catalogue of the Moravian flora]. – Rektorát Univerzity J. E. Purkyně, Brno.
- Strandhede S.-O. (1960): A note on *Scirpus palustris* L. – Bot. Not. 113: 161–171.
- Walters S. M. (1949): *Eleocharis* R. Br. (Biological flora of the British Isles.). – J. Ecol. 37: 192–206.

Received 8 December 2007

Revision received 21 March 2008

Accepted 25 March 2008