TYPIFICATION OF CHRYSANTHEMUM ZAWADZKII (ASTERACEAE)

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Abstract. The name Chrysanthemum zawadzkii Herbich is typified by the illustration published in the protologue, and epitypified by the specimen collected in 1832 by F. Herbich in the Pieniny Mts, Western Carpathians, and stored at the herbarium of the Ivan Franko National University of Lviv (LW). The original spelling of the species epithet is clarified.

Key words: Alexander Zawadzki, Asteraceae, Carpathians, Chrysanthemum, Dendranthema, epitype, Franz Herbich, lectotype, Tanacetum

Only a few flowering plant taxa described from Poland have later been discovered over wider ranges in Europe or even shown to have a Eurasian distribution. A remarkable example is Chrysanthemum zawadzkii Herbich [= Dendranthema zawadzkii (Herbich) Tzvelev; = Tanacetum zawadzkii (Herbich) Pawl.] described from specimens collected in 1829 by Franz Herbich in the Pieniny Mts in the Western Carpathians (Herbich 1831: 6, 44). In addition to its isolated locality in the Pieniny Mts, Chrysanthemum zawadzkii occurs in a disjunct locality in the eastern part of European Russia, and over a large area of Asia, reaching Japan (Zarzycki 1976: distribution map).

Franz Herbich (1791–1865), a botanist and military medical doctor (for more details of Herbich’s life see Knapp 1872), visited the Pieniny Mts in 1829, 1830 and 1832 (Herbich 1834: 572). Herbich bequeathed his herbarium to Edward Hückel (1830–1896), a botanist and school teacher who worked in several places in Eastern Galicia (now in Ukraine) (Köhler 2008). Later, Herbich’s collection passed to the Lviv Botanical Garden and finally was housed in the herbarium of the Ivan Franko National University of Lviv (LW). A significant number of Herbich’s specimens are also stored in the herbarium of the Natural History Museum, National Academy of Sciences of Ukraine in Lviv (LWS), founded in 1859 as the Dzieduszycki Family Museum, which was an important scientific center in the second half of the 19th century. Many of Herbich’s specimens, mostly related to the flora of Bukovina, are kept in the herbarium of the Yurii Fedkovych National University of Chernivtsi (CHER).

In Flora of the USSR, Tzvelev (1961: 378) states that the ‘type’ of C. zawadzkii is stored in Vienna, whereas the ‘isotype’ is deposited in Leningrad. Thanks to help from the Curators of both main herbaria of Vienna, Dr. Walter Till (WU) and Dr. Bruno Wallnöfer (W), it was established that Tzvelev apparently meant the herbarium of the Museum of Natural History in Vienna (W),
which in fact contains two specimens collected by F. Herbich in the Pieniny Mts. With the aid of Dr. Beata Paszko (KRAM) and Dr. Roman Ufimov (LE) we also managed to get access to the ‘isotype’ mentioned by Tzvelev as stored in LE. The efforts of Dr. Karel Sutorý (BRNM) and Professor Jan Kirschner (PRA) led to receipt of information on a specimen of C. zawadzkii stored at the Moravian Museum in Brno (BRNM).

Unfortunately, all of the six specimens we learned of were collected by F. Herbich in 1832 during his third trip to the Pieniny Mts on July 27, when on ‘Berg Gacza bei Szczawnice’ (now Mt. Kacza near Szczawnica) he gathered C. zawadzkii along with other plants (Herbich 1834: 574). As we did not find any specimens collected in 1829, here we designate the original illustration from the protologue (Fig. 1) as the lectotype of the name C. zawadzkii and the specimen LW 214045 (Fig. 2) as its epitype.

**Chrysanthemum zawadzkii** Herbich  
Addit. ad Fl. Galic.: 44. 1831. – *Tanacetum zawadzkii* (Herbich) Pawl., Ochrona Przyrody 14: 64. 1934. – *Dendranthema zawadzkii* (Herbich) Tzvelev, Fl. USSR 26: 376. 1961. – **Type Locality:** ‘In cacuminibus montium Pienninorum et in rupibus calcareis prope Krościenko ad ripas fluvii Dunajec (bei der Uiberfahrt) ad Szczawnice’. – **Lectotype** (designated here): [icon in] F. Herbich, Addit. ad Fl. Galic.: Tab. 1831. – **Epitype** (designated here): In cacumine montis Gacza Pienninorum. Circuli Sandecien[sis] Galiciae legit August 1832 Auctor [F. Herbich] (LW 214045). – **Isoepitypes:** BRNM s.n., LE s.n., LW 214046, W 7789, W 49071.

**Exsiccate Series:** Fl. Polonica Exs., no. 182 (1894); Fl. Exs. Austro-Hung., no. 2673 (1896); Pl. Poloniae Exs., no. 272 (1936); Fl. Exs. Reipubl. Bohem. Slov., no. 1098 (1936); Fl. Poloniae Exs., no. 87 (1970).

**Notes.** A misspelling of the species epithet as ‘zawadskii’ first used by Tzvelev in *Flora of the USSR* (1961: 376) repeatedly occurs in the literature. Another erroneous version is ‘zavadskii’ (cf. *Flora exsiccata Republicae Bohemicae Slovenicae*, no. 1098). The species name *Chrysanthemum zawadzkii* was given in honor of Alexander Zawadzki (1798–1868), a botanist and professor at the University of Lviv in 1847–1852. The misspell-

Fig. 1. Original illustration of *Chrysanthemum zawadzkii* Herbich (Herbich 1831: Tab.) selected as the lectotype.
Fig. 2. Epitype of *Chrysanthemum zawadzkii* Herbich (LW 214045).
of Vienna University. Most likely some other remaining copies contain the same error.

Acknowledgements. We are grateful to the Curators of the cited herbaria for making the relevant collections available for study, to Tetiana Khmil (LW), Beata Paszko (KRAM), Armin Löckher (W) and Karel Sutorý (BRNM) for photographing Herbich’s specimens, and to Piotr Köhler (Kraków) for information on Herbich’s activity. We thank Jan Kirschner (Průhonice) and an anonymous reviewer for critical remarks on the manuscript.

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Received 3 December 2013