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Lectotypification of *Senecio praealtus* var. *borysthenicus* (Asteraceae)

Sergei L. Mosyakin, Natalia M. Shiyán & Iva Hodálová

Abstract

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Senecio praealtus var. *borysthenicus* DC. (Asteraceae) was described based on specimens from Ukraine provided by Wilibald S.J.G. von Besser (1784–1842) and annotated by Antoni L. Andrzejowski (1785–1868) as “*Senecio borysthenicus*”. This taxon was previously recognized as *Senecio borysthenicus* (DC.) Andr. ex Czern. and is currently accepted as *Jacobaea borysthenica* (DC.) B. Nord. & Greuter. A lectotype is designated for this name based on a specimen collected near the village of Kyslyakivka, Kherson Governorate (now Lymany, Mykolayiv Region, Ukraine), one of three original specimens studied by Augustin-Pyramus de Candolle (1778–1841) and deposited in G-DC. The authorship of *Senecio borysthenicus* and *Senecio jacobaea* var. *borysthenicus* is also discussed.

Keywords

ASTERACEAE – *Jacobaea* – *Senecio* – Nomenclature – Ukraine

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Introduction

The name *Senecio borysthenicus* (DC.) Andr. ex Czern. (= *S. praealtus* var. *borysthenicus* DC.) (Asteraceae) was widely applied to a mainly southern (steppe and partly forest-steppe zones) East European psammophytic taxon recognized as a distinct species of *Senecio* L. in many taxonomic treatments and floras (SCHISCHKIN, 1961; MINDEROVA, 1962; PRIVALOVA, 1969; POPESCU, 1972; CHATER & WALTERS, 1976; TZVELEV, 1986; KONECHNAYA, 1994).

After molecular phylogenetic studies have convincingly demonstrated the isolated position of the genus *Jacobaea* Mill. as distinct from *Senecio* s.s. (PELSE et al., 2002, 2004), *Senecio borysthenicus* was subsequently transferred to the genus *Jacobaea* as *J. borysthena* (DC.) B. Nord. & Greuter (GREUTER & RAAB-STRAUBE, 2006). This name is currently widely accepted in botanical literature and databases (e.g., OSTAPKO et al., 2010; YENA, 2012; MOSYAKIN & YENA, 2017; GREUTER, 2019).

Typifications of names of some Ukrainian species of *Senecio* s.l. were published by SHIYAN et al. (2013) but *S. praealtus* var. *borysthenicus* has never been effectively lectotypified. This nomenclatural act is necessary for a correct application of that name in this taxonomically difficult group (see HODÁLOVÁ et al. 2015; MERED’A et al., 2016; MOSYAKIN, 2018).

Senecio praealtus var. *borysthenicus* was published by CANDOLLE (1838: 351) with the following diagnosis and geographical information: “ β *Borysthenicus*, fol. lobis angustissimis acutis involucrisque glabris. – in pratis Podoliae, Cherson. Russiae circ. Borysth. (Bess.). Sen. Borysthenicus Andr. ex Bess. in litt. (v. s.)”. “*Senecio borysthenicus*” named by Antoni L. Andrzejowski (1785–1868) was communicated to Augustin-Pyramus de Candolle (1778–1841) by Wilibald S.J.G. von Besser (1784–1842). Besser provided (most probably in 1831) three specimens collected in western and southwestern Ukraine, somewhere in the southern part of the Podolian Governorate of the former Russian Empire (“in pratis Podoliae”) and the Kherson Governorate near the Dnipro (Dnieper, Borysthene) River (“Cherson. Russiae circ. Borysth.”). Those three original specimens are syntypes currently deposited in G-DC [G00471752, G00471753, G00471754].

We are aware of several other original specimens collected and annotated by Besser and Andrzejowski and deposited at present in the Besser and Turczaninow memorial collections in the National Herbarium of Ukraine (KW), and probably there are some more duplicates in other herbaria (such as LE). These original and some other historical specimens will be discussed in a separate article in the context of rather complicated issues of nomenclature, taxonomy and distribution of *Jacobaea borysthena* and some of its related species.

Nomenclature

Jacobaea borysthena (DC.) B. Nord. & Greuter in Willdenowia 36: 712. 2006.

= *Senecio praealtus* var. *borysthenicus* DC., Prodr. 6: 351. 1838. = *Senecio borysthenicus* (DC.) Andr. ex Czern., Consp. Pl. Charcov.: 32. 1859. = *Senecio jacobaea* var. *borysthenicus* (DC.) Trautv. in Bull. Cl. Phys.-Math. Acad. Imp. Sci. Saint-Petersbourg 12: 351. 1854.

Lectotypus (designated here): **UKRAINE. Reg. Mykolayiv:** “circa Kislakowka gub. Cherson. 29.” [Vitovs’ky Distr., Lymany], s.d., Anon. [Andrzejowski] s.n. (G-DC [G00471753]!). **Syntypi:** **UKRAINE. Reg. Mykolayiv:** “Kislakowka. Gub. Cherson”, s.d., Anon. [Andrzejowski] s.n. (G-DC [G00471752]!). **Reg. unknown:** “E pratis Pod[oliae]. austr.”, s.d., Anon. [Andrzejowski/Besser] s.n. (G-DC [G00471754]!) (Fig. 1).

Notes. – We designate the specimen G00471753 as lectotype as it is the most complete material and bears the most complete locality information precisely identifying the collection site as Lymany, formerly Kyslyakivka village, transliterated by ANDRZEJOWSKI (1823: 23) in Polish as “Kiślakówka”. Furthermore, it bears the annotation “*Senecio borysthenicus* Andr.” in Besser’s handwriting. The syntypes bear two other determinations: “*Senecio affinis tenuifolio borysthenco*” [G00471752] and “*Senecio tenuifolius? involucri squamis enerv. ciliatis apice spha[...]*” [G00471754].

Each original specimen in G-DC bears a blue label with words “Herb. W. Besser” typographically printed in the bottom right corner (Fig. 1). This blue paper is identical to the one used for publication of the first edition of Besser’s *Catalogue* (BESSER, 1810). The number “29” on the label of the lectotype has a stroke above, meaning 1829; that was Besser’s usual manner of indicating the year of collection or provenance. In that case it is the year of provenance by Besser and not the actual collection year, because Andrzejowski (who was the actual collector, based on historical data; see ANDRZEJOWSKI, 1823, 1830) visited the area not in 1829 but earlier, in the 1810s and early 1820s but not later than 1824.

The geographic location of the specimen G00471754 is uncertain because the label data indicating Southern Podolia may refer to any area in the southern part of the former Podolian Governorate, now partly in Khmelnytskyi (south), Vinnytsya (south), Odesa (north), and Mykolayiv (west) regions of Ukraine.

The authorship of the recombination *Senecio borysthenicus* was sometimes attributed to Leopold F. Gruner (GRUNER, 1869: 423), Sergei S. Stankov (STANKOV & TALIEV, 1949: 651; see CHATER & WALTERS, 1976), or to Boris K. Schischkin (SCHISCHKIN, 1961: 718). In fact, the species-rank combination was validated by Vasiliy M. Czerniaëw (also sometimes Romanized as Basilius Czernajew) (CZERNIAËW, 1859: 32),



Fig. 1 – Lectotype of *Senecio praedaltus* var. *borysthenicus* DC. in G-DC.

who cited this species under *Senecio* as “748. Borysthenicus. Andr. Ch. [Charkovia – Kharkiv]. In arenosis”. Czerniaëw partly misapplied that name to East Ukrainian specimens of *Jacobaea vulgaris* and (probably) *J. andrzejowskyi* (Tzvelev) B. Nord. & Greuter as it is evident from his herbarium specimens at KW. The authorship of the combination *Senecio jacobaea* var. *borysthenicus* was occasionally attributed in literature to Ivan Fedorovich (Johannes Theodor) Schmalhausen (SCHMALHAUSEN, 1886) or L.F. Gruner (GRUNER, 1869). However, this combination (as “*borysthénica*”) was validated already in 1854 by Ernst R. von Trautvetter (TRAUTVETTER, 1854: 351; see also TRAUTVETTER, 1855: 131), with the direct reference to the basionym and to the unpublished species-rank name proposed by Andrzejowski.

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