

Short communication

## Typification of *Zaluzianskya villosa* F.W. Schmidt (Scrophulariaceae–Manuleae)

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### Abstract

The protologue of the name *Zaluzianskya villosa* F.W. Schmidt, the type of the genus *Zaluzianskya* F.W. Schmidt, is analysed and compared with a specimen considered as a part of the original material of the name. The specimen (deposited in PRC) is selected as the lectotype of *Zaluzianskya villosa* and supersedes the previously selected neotype. Taxonomic identity of the lectotype is discussed. Basic information about F.W. Schmidt, a leading personality in the early Czech botany, and his herbarium collection is given.

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### 1. Introduction

The typification and nomenclature of the genus *Zaluzianskya* F.W. Schmidt has been dealt with in a number of works (Paclt, 1972, 1975; McVaugh, 1974; Hilliard and Burt, 1983) with the conservation of this generic name and confirming *Z. villosa* as the original type species as main results. A number of new species were revealed recently in the sect. *Zaluzianskya*, and in the vicinity of *Z. villosa* in particular, which was the situation requiring a typification of the latter name. In the recent monograph of the *Manuleae* (Hilliard, 1994), a neotype was selected in the absence of the original material.

During a long-term study of the early Czech botany (Kirschner et al., 2007), we found a number of specimens of the collection of Franz Willibald Schmidt, including a plant that could be considered as a part of the original material of the name *Zaluzianskya villosa*. The present paper introduces F.W. Schmidt as an author of plant names and a skilled painter, summarizes our knowledge of his herbarium collection, and deals with the typification of the type of the genus *Zaluzianskya*.

### 2. Franz Willibald Schmidt and his collection

F.W. Schmidt was born in 1764 in the town of Planá, West Bohemia, Czech Republic, in a German speaking family of then famous artists (painters). He was also a talented painter and soon developed a passion for botany. During about ten years of botanical activity before his untimely death, F.W. Schmidt published a number of papers and books and created about 800, mostly unpublished drawings and watercolours (Skalický, 1982; Kirschner, 1988). A contemporary of T. Haenke, he soon became a leading personality in botany in Bohemia; he described many new species and a number of them are generally accepted now. His full botanical bibliography is given in Futák and Domin (1960) and Kubát and Skalický (1999). He was very active in correspondence and herbarium exchange (Heufler, 1851; Römer, 1798), in botanical travelling in Bohemia and in plant collecting. His complete herbarium collection was deposited at PRC (seen and studied by Tausch, 1828) but during the times of Prof. M. Willkomm at Prague (German) University, the collection was newly prepared and incorporated into the main collection. Specimens without exact localities were thrown away, the original folders removed (only a part of handwritten labels retained); only a few species folders escaped this treatment. Now, after decades of effort, a part of the collection (about 200 specimens) has been restored, including a number of types. Many specimens collected by F.W. Schmidt were sent to other herbaria; some of them

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Fig. 1.

directly by the collector (herbarium Willdenow at B, herbarium Hoffmann at MW), others by later botanists (for instance, Count Waldstein sent several specimens to P. Kitaibel, now at BP).

F.W. Schmidt was head of a private botany school and a botanical garden in Prague, sponsored by Count Malabaila de Canal. There he got access to extra-European plants, and used the international contacts of his *Maecenas* to acquire foreign plants. Observations of a number of these plants were published by him in his thesis (Schmidt, 1793), where he also described several plants from South Africa. The names, mostly based on specimens now deposited, or to be sought, in PRC, remain to be studied: *Erica laniflora*, *Erica campanulata*, *Erica scabra*, *Diosma lancifolia*, *Haenkea punctata*, *Haenkea villosa*, *Luehea ericoides* (not in PRC), *Canalia daphnoides* (probably=*Gnidia pinifolia* L.) and *Struthiola sulcata*. These were sent to him by Baron Carl Emil von der Lüche [Luehe], a contemporary German traveller and botanist. Possible duplicates of the plants collected by C.E. Lüche might be found in the herbarium W (Tausch, 1830).

Franz W. Schmidt died very untimely at the age of 32 years in 1796 and his works remained unfinished.

### 3. Original material of the name *Zaluzianskya villosa*

A systematical search of the PRC herbarium (Charles University, Prague) for the plants collected or acquired by F. W. Schmidt brought to light several specimens of plants described by FWS in his thesis. One of the specimens is unusual in having a label with a relatively long text written in the hand of FWS. The specimen (Fig. 1) and the label (Fig. 2) obviously represent the original material of *Zaluzianskya villosa*. As FWS probably had only one plant at his disposal, the individual characters may be compared with the description, and the published description with that on the label (Table 1). The following facts support the status of this specimen as an original material of the latter name:

a. The label bears the name *Zaluzianskya villosa* and the description on the label undoubtedly was written by FWS himself.

- b. The label description substantially corresponds to the published one (Table 1), most differences represent added characters in publication, after additional examination of the plant.
- c. Individual features of the description point to the plant on the herbarium sheet.
- d. Tausch (1830: 553) mentioned an authentic plant of *Z. villosa* in the herbarium of FWS in Prague.

### 4. Typification of the name *Zaluzianskya villosa*

In accordance with Art. 9.17(a) of the Code, the previously designated neotype must be superseded if any of the original material is rediscovered. As demonstrated above, the plant in PRC belongs to the original material of the name *Z. villosa*. The PRC specimen is therefore designated as the lectotype:

*Zaluzianskya villosa* F.W. Schmidt, Neue Selt. Pfl. Bot. Beobacht. 11 (1793). — Type: *Zaluzianskya villosa*, sine loc., sine dat., sine no. [F.W. Schmidt scr.]; lectotype, designated here: PRC (Figs. 1 and 2).

Superseded previously designated neotype: Cape of Good Hope, False Bay, vii 1882, *Bohus* in Herb. Norm. Austro-Afric., no. 652 (neo: E, isoneo: W), designated by Hilliard, Manuleae 492 (1994).

### 5. Taxonomic identity of the lectotype

The original specimen was compared with material of *Zaluzianskya villosa* deposited in the herbarium collections of K and BM and with a detailed description published by (Hilliard, 1994). The PRC specimen corresponds with the above material and the description in most respects. In particular, it is an annual plant branched from the very base, with side branches ascending, stems and branches hairy, covered with (mostly) dense subpatent, often

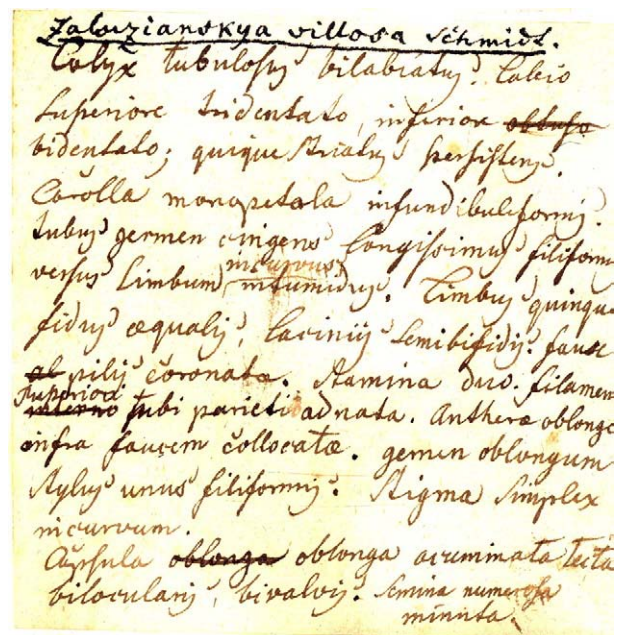


Fig. 2.

Table 1

A comparison of the label text of the authentic specimen of *Zaluzianskya villosa* F.W. Schmidt with the published description.

Label text	Published text	Translation of the label text
Calyx tubulosus bilabiatus, labio superiore tridentato, inferiore bidentato; quinquestriatus, persistens.	CALYX. <i>Perianthium</i> monophyllum, tubulosum, membranaceum, quinquestriatum, persistens, bilabiatum; labio superiore tri- inferiore bidentato; ore villis ciliato [...]	Calyx cylindric, bilabiate, upper lip 3-dentate, lower lip bidentate; 5-ribbed, persistent.
Corolla monopetala infundibuliformis, tubus germen cingens, longissimus filiformis, versus limbum incurvus intumidus.	COROLLA monopetala infundibuliformis. <i>Tubus</i> germen cingens, longissimus filiformis incurvus, versus limbum ventricosus.	Corolla gamopetalous, funnel-shaped. Tube surrounding ovary, very long, filiform, curved inwards, towards limb, thickened.
Limbus quinquefidus aequalis, laciniis semibifidis. Faux pilis coronata.	<i>Limbus</i> quinquepartitus, aequalis, <i>laciniis</i> bifidis, linearibus. <i>Faux</i> pilis coronata.	Limb 5-lobed, equal, with semibifid lobes, mouth crowned with hairs.
Stamina duo, filamen. superiori tubi parieti adnata.	STAMINA. <i>Filamenta</i> duo superiori tubi parieti adnata, decurrentia.	Stamens 2, filaments adnate to the upper part of tube wall
Antherae oblongae infra faucem collocatae.	Antherae oblongae in collo tubi.	Anthers oblong, included below the tube mouth.
Germen oblongum, stylus unus filiformis. Stigma simplex, incurvum.	PISTILLUM. <i>Germen</i> superum ovatum. <i>Stylus</i> filiformis tubo paulo longior. <i>Stigma</i> simplex, incurvum.	Ovary oblong, style single, filiform, stigma simple, curved inwards.
Capsula acuminata tecta, bilocularis, bivalvis.	PERIC. <i>Capsula</i> oblonga, acuminata tecta, bilocularis, bivalvis, utrinque sutura sulcata inscripta.	Capsule acuminate, concealed, bilocular, 2-valved.
Semina numerosa, minuta.	SEMINA numerosa, minuta.	Seeds numerous, very small.

The order of characters in the published text is changed to be comparable with the label. Translation of the label text is provided.

variously curved hairs with subacute to acute apex; among these long hairs, minute glandular hairs are scattered. Leaves are oblanceolate to subspatulate, with obtuse apex, pubescent, petiole up to 1/3 of the leaf length, blade entire or with 1 (rarely 2) pair(s) of minute lateral teeth. Inflorescence bracts are oblanceolate to oblong, entire, densely covered with short acute hairs (to 1 mm long), with sparse longer (to 2 mm) hairs near the base. Corolla tube to 2 cm long, with minute glandular hairs and also sparsely pubescent, corolla lobes bifid.

There are a few taxa to be compared with the type of *Z. villosa*, particularly *Z. affinis* Hilliard, *Z. parviflora* Hilliard and *Z. gracilis* Hilliard. The latter two are distinct from *Z. villosa* (and the new lectotype) in having corolla tube shorter than 10 mm while *Z. villosa* has corolla tube longer than 14 mm (about 15–17 in the lectotype). The other members of the subsect. *Zaluzianskya* are more remote morphologically. On the other hand, *Z. affinis* is closely related and similar to *Z. villosa* and requires a more detailed comparison. The subspatulate to oblanceolate obtuse leaves of the lectotype specimen, together with its densely hairy bracts and densely to subdensely hairy leaves, all point to the characters of *Z. villosa*. The only feature of the lectotype specimen that leaves certain doubts is the leaf indentation: leaves are often entire or nearly so, only in few leaves there are visible tooth pairs, rarely two, more often only one. According to the specimens consulted, not even this feature is outside the variation limits of *Z. villosa*. We can conclude that the lectotype specimen belongs to what is understood as *Z. villosa* by Hilliard (1994).

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