Viola montana and V. persicifolia (Violaceae): two names to be rejected

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The taxonomic and nomenclatural histories of Viola elatior Fries (1828), V. pumila Chaix (1785) and V. stagnina Kit. ex Schult. (1814) in central and western Europe are discussed. The names V. stagnina and V. elatior are lectotypified with specimens corresponding to the current use of these names. The neglected lectotypification of V. montana L. (1753) from 1988 with a specimen referable to V. elatior is briefly reviewed. The name V. persicifolia Schreb. (1771), used in some floras instead of V. stagnina, is analyzed in detail, and we conclude that it should be interpreted as referring to V. elatior as well. The use of V. persicifolia and V. montana, representing the correct name for the species widely known as V. elatior, has been notoriously confused for two centuries, and we herein recommend to reject these two names in order to assure nomenclatural clarity and stability.

Keywords: Europe, nomenclature, typification, Viola elatior, V. stagnina, Viola subsect. Rostratae

²Danihelka et al., submitted to Taxon (in review).
Introduction

*Viola* subsect. *Rostratae* Kupffer (= *V*. sect. *Trigonocarpea* Godron) is represented in Europe by five arosulate species, often referred to as *V*. ser. *Arosulatae* Borbás (van den Hof et al., 2008). *Viola canina* L. (2n = 40), the commonest one, has a wide distribution range reaching from the Iberian Peninsula in the west to Lake Baikal in the east. It is extremely morphologically variable, and its intraspecific classification is still in dispute. *Viola lactea* Sm. (2n = 58), in contrast, is a strongly oceanic species confined to the British Isles, the northern parts of the Iberian Peninsula, western France, and Belgium. The three remaining species, in recent literature known as *V*. *elatior* Fries (2n = 40), *V*. *pumila* Chaix (2n = 40), and *V*. *stagnina* Kit. ex Schult. (or *V*. *persicifolia* Schreb.; 2n = 20), have wide distribution ranges reaching from the British Isles and eastern France eastwards to western or central Siberia. In central Europe they are often confined to the floodplains of the large lowland rivers. The taxonomy and ecology of the three floodplain violets in Central Europe was recently reviewed by Eckstein et al. (2006a). In the course of our studies, we have encountered nomenclatural difficulties that will be dealt with herein.

*Viola montana*

Herbarium specimens of *V*. *elatior* collected in the late 18th and early 19th centuries have been frequently identified as *V*. *montana* L. (Sp. Pl. 2: 935. 1753), which is in conflict with the prevailing current use of this Linnean name for certain morphotypes of *V*. *canina*. These different interpretations can be traced back to a redefinition of *V*. *montana* in the second edition of *Flora suecica* (Linnaeus, 1755) and subsequently in the second edition of *Species Plantarum*. The use of the name *V*. *montana* has been repeatedly discussed. Some authors have suggested that the name *V*. *montana* originally referred mainly to the plant currently known as *V*. *elatior* (e.g. Fries, 1828; Neilereich, 1859; Borbás, 1892; Wilmott, 1916; Lindberg, 1958). Nikitin (1988) reviewed the nomenclatural history of *V*. *montana* and proposed a lectotype (Herb. Linn. No. 1052.13, LINN) referable to *V*. *elatior*. This lectotypification is in accordance with the protologue and should not be overruled. However, only a few authors apart from Nikitin seem to have accepted its consequences (e.g., Chen Zousheng et al., 2007) and replaced *V*. *elatior* by *V*. *montana*, while many other national checklists and floras published after 1988 preferred nomenclatural stability and clarity to correctness, and continued using *V*. *elatior*. The replacement of a well established name by another name that was only rarely used in its original sense after the 1820’s is undesirable and would destabilize nomenclature. Therefore we have decided to propose *V*. *montana* for rejection, as already announced by Kirschner and Skalický (1989).


Ind. loc.: “Habitat in Alpibus Lapponiae, Austriae, Baldo.”


3Chapter 4 of this thesis.
The name Viola persicifolia was published by Schreber (1771) with a reference to a description in a pre-Linnean flora of Leipzig (Boehmer, 1750; Fig. 7). However, this publication remained neglected for long or the name was considered illegitimate due to the putative lack of description. For these reasons or due to contemporary nomenclatural practice, the name was ascribed to later authors, initially to Roth (1789; e.g. Schultes, 1814; Mertens and Koch, 1826; Reichenbach, 1823) and later to Schkuhr (1803; e.g. Reichenbach 1832, 1839–1840). Even now, more than two centuries after its publication, the name V. persicifolia is subject to controversy: in some floras, mainly those from western Europe, it has been used for the species otherwise known as V. stagnina (Valentine et al., 1969; Guinochet and Vilmorin, 1982; Stace, 1997; Haeupler and Wisskirchen, 1998; Elven, 2005; van der Meijden, 2005), while others argued that it refers to the species known as V. elatior Fries and should be proposed for rejection in the terms of the Code to prevent further confusion (Mansfeld, 1939; Hylander, 1945; Rauschert, 1983; Kirschner and Skalický, 1990; Eckstein et al., 2006a).

The interpretation of the name V. persicifolia has been connected with difficulties from the very beginning. Both Roth (1789) and Schkuhr (1803) recognized two arosulate Viola species from this group, V. persicifolia and V. montana, the latter in its original concept and including at least partly V. elatior. Still, Schkuhr (l.c.) clearly expressed his uncertainty about their delimitation (see also p. 6 of Nachtrag), and his contemporary Willdenow (1798) did not consider them different at all (though he referred to Flora Suecica; Linnaeus, 1755) and treated them collectively as V. montana. However, it is probable that the description of another arosulate violet, V. lactea Sm. (Smith, 1798), provided an incentive for Willdenow to later recognize more than one species in this group. To our knowledge this was never published by Willdenow himself, who died in 1812, but his herbarium (Röpert, 2000 onward) contains one folder labeled V. montana and a second labeled V. lactea. His delimitation of the two, however, makes no sense in our point of view. The former folder contains two sheets of what is now known as V. elatior and one of V. pumila, and the latter folder two sheets of what is now known as V. elatior, three of V. pumila, and two of V. stagnina.

Schultes (1814) was the first to recognize more than two species of floodplain violets. His three species were V. lactea, based on a specimen collected by P. Kitaibel in Hungary and whose description roughly corresponds to V. pumila (represented by two Kitaibel’s specimen in herbarium Willdenow; see Röpert, 2000 onward), V. persicifolia “Roth”, referable to V. elatior, and V. stagnina that he described as a new species based on a specimen collected by P. Kitaibel in Croatia. In addition to these three species, Schultes (l.c.) further kept V. montana (with a question mark and only general information about its distribution and habitat); the fifth species, V. lancifolia, reported from the surroundings of Berežany in southwestern Ukraine, is difficult to interpret but it may refer to a specimen of V. canina.

Nine years later, Reichenbach (1823) paid a great deal of attention to Viola. Based on Wahlenberg’s opinion, he coined the concept of V. montana redefined by Linnaeus (1755) in Flora Suecica, i.e. as a species similar to V. canina. The taxonomy of the floodplain violets was discussed on pp. 86–88 as comments on his Plates XCIX (Viola lactea. Sm.) and C (Viola persicifolia. Roth.). Reichenbach recognized two species, V. lactea Smith, with all leaves glabrous and oblong-lanceolate (sometimes ovate- or cordate-lanceolate),
and *V. persiciifolia* “Roth”, with ovate-lanceolate leaves, pubescent when young. The latter clearly corresponds to *V. elatior*; a chasmogamously flowering specimen and the upper part of a fruiting specimen with capsules from cleistogamous flowers were drawn after plants collected in Leipzig (Fig. 6). Here and in the synonymy Reichenbach explicitly refers to a violet treated in two pre-Linnean floras as occurring near Leipzig (Ruppius, 1726; Boehmer, 1750). He also explained that Roth, as not being familiar with this violet, created a new name based on Ruppius’s phrase name. Also *V. lactea* in Plate XCIX was drawn after a plant collected in Leipzig. In his comments Reichenbach stated that it is a widespread species collected from a major part of Europe, but at the same time often confused with other *Viola* species. Variation in leaf and stipule shape were, according to Reichenbach, merely plastic responses to differences in humidity and soil conditions, and thus not worth noting. To prove his point, he drew along with the whole plant a series of laminas and stipules as figures c–n of Plate XCIX. In our opinion, while the whole plant is clearly referable to *V. stagnina*, the detailed leaf and stipule drawings belong to *V. pumila*. Reichenbach also associated *V. pumila* “Vill.” with his *V. lactea*, but with some degree of uncertainty, while the choice of the younger name *V. lactea*, based on British plants, was supported by comparison of his specimens with the drawing in Smith (1798).

The second volume of Röhlings Deutschlands Flora (Mertens and Koch, 1826) brought important novelties. Its authors accepted *V. persiciifolia* “Roth” as circumscribed by Reichenbach (1823) but almost excluded *V. lactea* Smith (with *V. lanciifolia* Thore, Essai Chloris, 1803 as synonym) from the flora of Germany, referring only to a single specimen collected by Wallroth near Wendelstein in Thuringia. They were the first to recognize that Reichenbach’s *V. lactea* consisted of two species, *V. stagnina* and the newly described *V. pratensis*, i.e. *V. pumila*. The characters given in their descriptions delimitate the two from each other as well as from *V. canina* s. lat. They further discussed the appearance of plants with capsules and cleistogamous flowers and also noted, in the synonymy of *V. stagnina*, that plants identified as *V. persiciifolia* by Schreber in his herbarium correspond to *V. stagnina*.

Two years later, Fries (1828) also accepted three species and with similar concepts, but under completely different names. First he argued that the plant found by Ruppius (1745) near Leipzig was *V. stagnina* rather than *V. elatior*, referring also to the description in Haller (1768, species no. 562), and that the description provided by Roth (1789) would apply better to *V. stagnina* than to *V. elatior* (treated by Roth under *V. montana*). For these reasons, he used the name *V. persiciifolia* (“*V. persicaefolia*”) for *V. stagnina* and proposed a new name, *V. elatior*, to replace *V. persiciifolia* as used especially by Roth (1789) and afterwards. In contrast to Mertens and Koch (1826), he kept the name *V. lactea* (instead of *V. pratensis*) for *V. pumila*, based on the opinion of O. Swartz, who had declared Fries’s specimens to be the genuine *V. lactea* of Smith.

Reichenbach (1832) may be understood as a polemic with Mertens and Koch (1826). He insisted that only two species of floodplain violets should be recognized in Germany, i.e. *V. lactea* Sm., consisting of our *V. pumila* and *V. stagnina*, and *V. persiciifolia* “Schk.”, corresponding to *V. elatior*. He further argued that “*V. stagnina* Kit. nil est nisi status post florescentiam” of his *V. lactea*. However, he accepted Fries’s opinion that “*V. persicaefoliiis*” of Ruppius, Schreber, and Roth is conspecific with his *V. lactea* and not with *V. persiciifolia* as described and drawn by Schkuhr (1803). Instead of accepting *V. elatior* as the correct name, he kept *V. persiciifolia* and ascribed it to Schkuhr. This may have been in accordance with contemporary nomenclatural practice but it only further deepened the
nomenclatural confusion.

In the first edition of the Synopsis, Koch (1836) kept the concept of the three species as proposed ten years earlier (Mertens and Koch, 1826) but, following Fries (1828), he replaced the name V. persiciūlia with V. elatior. The diagnoses were precise and distinguished well among the three. Referring to Plate XCIX in Reichenbach (1823), Koch assigned the main figure to V. stagnina but the leaf drawings c–f to his V. pratensis. He further definitely excluded V. lactea (as V. lancifolia) from the flora of Germany.

Reichenbach returned to the topic with two plates (Reichenbach, 1838–1839) and a long accompanying text (Reichenbach, 1839–1840). He was very critical about the treatment of floodplain violets in the Synopsis (Koch, 1836) and used strong words bordering on personal attacks. Like in his earlier work, Flora Germanica Excursoria (Reichenbach, 1832), he recognized only two species, V. persiciūlia “Schkuhr” and V. lactea Smith. The latter consisted of populations classified now as V. pumila and V. stagnina, and Reichenbach considered them one taxon conspecific with the British populations of V. lactea (but different from V. lancifolia described from north-western France). He repeated his arguments against the species rank of V. stagnina and V. pratensis, at the same time recognizing as a separate taxon 4507b V. lactea var. humilior Fries (with V. pratensis in synonymy); the corresponding figure in Plate XVII (labeled as 4507.b. pratensis M.K) represents a typical V. pumila. However, Koch (1843) apparently ignored Reichenbach’s strong criticism and only added a few reasons for not using the names V. lactea and V. persiciūlia.

Uechtritz (1871) adopted the same taxonomy as proposed by Koch (1836, 1843). However, he was probably among the first to replace V. pratensis by the priority name V. pumila. He interpreted V. persiciūlia as originally referring to V. stagnina but recommended to “remove” this notoriously misapplied name. Borbás (1892), adopting the same classification, paid a lot of attention to nomenclature: he suggested to return to the original Linnean concept of V. montana and recommended to use this name instead of V. elatior, and, based on the description by Roth (1789), he replaced the name V. stagnina with V. persiciūlia “Roth”.

Becker (1910) accepted the taxonomy coined by his immediate predecessors but preferred to use the unambiguous name V. stagnina instead of V. persiciūlia. However, in his monograph on Asian and Australian species (Becker, 1917), he reintroduced V. persiciūlia “Roth” to replace V. stagnina. Becker’s last important monograph seems to have influenced the interpretation of the name V. persiciūlia until present. Becker’s reasoning reads as follows: “Ich habe für diese Art die Bezeichnung, V. persiciūlia Roth wieder verwandt, da es keinem Zweifel unterliegt, daß Roth unter diesem Namen obige (= V. stagnina) Pflanze verstanden hat. Roth hat die Art nach der Phrase Ruppius’ in der Fl. Jenens. (1726, 1745) benannt: ,Viola palustris, angustis Persicae foliis mucronatis et serratis, nondum descripta. Rupp gibt seine Art von Sumpfwiesen, bei Leipzig, nicht weit von der Funkenburg an. Roth zitiert nicht nur die Ruppische Pflanze, sondern auch Boehmer Fl. Lipsiae indigena (1750), welcher auch als Standort die Funkenburg angibt und gut beschreibt. Hier kam die Art, die von Rupp l. c. als häufig bezeichnet wird, noch zu Reichenbachs Zeiten vor (Reichenbach, 1839–1840).” How convincing this may sound it is, however, incorrect. Although it is true that Reichenbach (1839–1840) discussed the identity of the Funkenburg violet and attributed it to V. lactea (i.e. V. stagnina or V. pumila), there is no evidence that any of the plants depicted as “4507. Viola lactea Smith” in Icones (Reichenbach, 1839–1840: plate XVI & XVII) were collected near the Funkenburg. Actually, Reichenbach
published a drawing made after the Funkenburg plant 16 years earlier in the Plantae criticae (Reichenbach, 1823; Fig. 6), and the drawings unambiguously represent *V. elatior*. Already Gerstlauer (1943) pointed to this error but this publication has been neglected by some botanists.

A simplified survey of taxonomical and nomenclatural treatments in floras described above and some other monographs is given in Table 1.

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**Fig. 6.** Plate C (Reichenbach, 1823) depicting *Viola persiciifolia* “Roth” drawn by Reichenbach himself after plants collected near the Funkenburg in Leipzig.
<table>
<thead>
<tr>
<th>Author</th>
<th>Viola elatior</th>
<th>Viola stagnina</th>
<th>Viola pumila</th>
<th>Viola lactea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schreber, 1771</td>
<td>V. persicifolia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roth, 1789</td>
<td>V. persicifolia (V. montana)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Willdenow, 1798</td>
<td>V. montana</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schkuhr, 1803</td>
<td>V. persicifolia (V. montana)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schultes, 1814</td>
<td>V. persicifolia “Roth”</td>
<td>V. stagnina</td>
<td></td>
<td>V. lactea</td>
</tr>
<tr>
<td>Reichenbach, 1823</td>
<td>V. persicifolia “Roth”</td>
<td></td>
<td></td>
<td>V. lactea</td>
</tr>
<tr>
<td>Mertens &amp; Koch, 1826</td>
<td>V. persicifolia “Roth”</td>
<td>V. stagnina</td>
<td>V. pratensis</td>
<td>V. lactea (syn. V. lancifolia)</td>
</tr>
<tr>
<td>Fries, 1828</td>
<td>V. elatior</td>
<td>V. “persicaefolia” Schreber</td>
<td>V. lactea</td>
<td>V. l. var. humilior, V. l. var. pratensis</td>
</tr>
<tr>
<td>Reichenbach, 1832</td>
<td>V. persicifolia “Schkuhr”</td>
<td></td>
<td>V. lactea (different from V. lancifolia)</td>
<td></td>
</tr>
<tr>
<td>Koch, 1836</td>
<td>V. elatior</td>
<td>V. stagnina</td>
<td>V. pratensis</td>
<td>V. lactea (syn. V. lancifolia)</td>
</tr>
<tr>
<td>Reichenbach, 1839–1840</td>
<td>V. persicifolia “Schkuhr”</td>
<td></td>
<td>V. lactea (incl. V. l. var. humilior but different from V. lancifolia)</td>
<td></td>
</tr>
<tr>
<td>Koch, 1843</td>
<td>V. elatior</td>
<td>V. stagnina</td>
<td>V. pratensis</td>
<td></td>
</tr>
<tr>
<td>Uechtritz, 1871</td>
<td>V. elatior</td>
<td>V. stagnina</td>
<td>V. pumila</td>
<td>V. lactea</td>
</tr>
<tr>
<td>Borbás, 1892</td>
<td>V. montana</td>
<td>V. persicifolia “Roth”</td>
<td>V. pumila</td>
<td>V. lactea (syn. V. lancifolia)</td>
</tr>
<tr>
<td>Becker, 1910</td>
<td>V. elatior</td>
<td>V. stagnina</td>
<td>V. pumila</td>
<td>V. lactea</td>
</tr>
<tr>
<td>Becker, 1917</td>
<td>V. elatior</td>
<td>V. persicifolia “Roth”</td>
<td>V. pumila</td>
<td>V. canina subsp. lactea</td>
</tr>
</tbody>
</table>
Nomenclatural analysis

The name *Viola persicifolia* was published with an extremely short protologue (Schreber 1771). It consisted solely of a number “456”, in the right column, representing a reference to species 456, *Viola caule erecto*, *foliis ovato lanceolatis*, *serratis*, in Flora Lipsiae indigena (Boehmer, 1750 cf. Schreber, 1771). This has to be considered indirect reference to a previously published description as described in Art. 32.6, required for valid publication of a name by Art. 32.1.(c) of the ICBN (McNeill et al., 2006). The species’ treatment in Boehmer (Fig. 7) consists of a phrase name, another phrase name used in the third edition of an earlier flora of Jena and its surroundings (Ruppius, 1745), locality information, and a description. As no herbarium specimens collected by Boehmer or Ruppius are known to be extant (Stafleu and Cowan, 1976, 1983), those four elements are the only base for the interpretation of the name. In principle, *V. persicifolia* could refer to any or all of *V. elatior*, *V. pumila*, and *V. stagnina* because all three are known to have occurred in the surroundings of Leipzig at least until the 1850s (Reichenbach, 1823; Petermann, 1838; Hardtke and Ihl, 2000; P. Gutte, in litt.).

Boehmer’s description is rather ambiguous and contains only little information. “Stipulae duae minores” may be interpreted as a character of *V. stagnina* or merely as a comparison to the size of the lamina and petiole. The erect stem is typical of *V. elatior*, while pale corolla (in comparison with *V. odorata*) applies better to *V. elatior* and *V. stagnina* than to *V. pumila*. However, the fact that the species was cultivated in gardens applies best to *V. elatior* and to lesser extent to *V. pumila*. *Viola elatior* is relatively easy to cultivate and certainly has an interesting habit and some decorative value. The treatment in Ruppius (1745) is even shorter “*Viola palustris*, angustis Persicae foliis mucronatis, & serratis, nondum descripta. Ist häuffig auf sumpfigten Wiesen bey Leipzig, nicht weit von de Funcken-Burg, floret Aprili.” and does not offer much additional information. In general, the informative value of such old diagnoses should not be overestimated: in this case, the phrase names from Ruppius and Boehmer are also cited in the validating description of a species in the *V. canina* group, *V. ruppii* All. (Haller, 1768; Fries, 1828; Dandy, 1970). Further, Haller (l.c., species 562), editor of the third edition of Ruppius’s flora (Ruppius, 1745), mentioned that he collected it in Jena, in Suevia (Schwaben, Germany), and not far from Scaphusia (Schaffhausen), but not in Leipzig. His collections, now preserved at P, correspond to neither *V. stagnina* nor *V.*
elatior, but to V. ruppii as understood today (Kirschner and Skalický, 1989). This indicates that he had himself not seen the Funkenburg violet. In contrast to some other violet species in Ruppius’s flora, he did not add any comments behind the species treatment adopted from the second edition, which further supports this assumption.

Both Boehmer (l.c.) and Ruppius (l.c.) referred to the same site, variously spelled as Funckenburg bei Gonnewitz or Funcken-Burg, now part of the city Leipzig and not far from its centre. Adjacent to the Funkenburg, hard-wood forest (Leipziger Auenwald) and wet meadows were found in the 19th century. Leipzig floras from this period (P. Gutte, in litt.; Petermann, 1836; Reichenbach 1823) reported only V. elatior from this site but not V. pumila or V. stagnina. The former presence of V. elatior at this site is confirmed by an undated specimen from the herbarium Reichenbach fil. “Funkenburg Lips.” (sine coll.) now deposited at W as no 1889/305915 (Fig. 8). Still, we cannot rule out that also V. pumila and/or V. stagnina occurred there as well, but we have not seen any specimens. The probability that more collections from the Funkenburg will be discovered is very low because the Leipzig university herbarium was completely destroyed by fire during World War II (P. Gutte, in litt.). The fact that V. elatior had been known from the Funkenburg was used as base for the interpretation of V. persicifolia by Reichenbach (1823) and later by Gerstlauer (1943) and Rauschert (1983). In contrast, Fries (1828) argued that the Funkenburg violet was V. stagnina because Ruppius (1726) considered it as not described yet ("nondum descripta"), whereas V. elatior had been repeatedly described and illustrated by early authors ("planta tum temporis notissima, in quovis libro picta"). Petermann (1836) also concluded that Ruppius had V. stagnina in mind because of its “frequent” occurrence in wet meadows.

In our opinion, there is one circumstance neglected before: Ruppius (1726, 1745), Boehmer (1750) and Schreber (1771) all recognized only one species of floodplain violets in spite of the fact that three species grew around the contemporary Leipzig. From this point of view the speculations about what species these early authors had in mind are less important. Further, there are reports (Reichenbach, 1839–1840) that plants identified by Schreber as V. persiciolia are referable both to V. stagnina and to V. elatior. However, when we investigated the material of the Schreber herbarium deposited at M, we found that all collections identified as V. persiciolia can be considered as V. stagnina. This corresponds to what Mertens and Koch (1826) and Fries (1828) reported. Also Schweigger (1804), disciple of Schreber, probably used the name V. persiciolia when referring to V. stagnina (see Koch, 1843); he accepted the phrase name from Boehmer (1750) and added: “Pro varietate violae montaneae habetur.” In contrast, the specimens of V. elatior from the herbarium Schreber (now at M) were identified as V. montana, V. canadensis or V. sibirica.

The first botanist who clearly linked the name V. persiciolia to V. elatior was Schkuhr (1803). He was later followed by Schultes (1814) and especially Reichenbach (1823), who

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Fig. 8. Label of a V. elatior specimen from the herbarium Reichenbach fil. (W1889/305915) collected near the Funkenburg in Leipzig.
published an illustration based on plants from the Funkenburg site and clearly distinguished between *V. persiciola* (= *V. elatior*) and *V. lactea* “Sm.” (= *V. pumila* and *V. stagnina*). These descriptions and plates may be considered informal emendations and tradition to follow. This point of view was already presented by Neilereich (1859), though he referred only to Reichenbach. The later note in the Specimen floriæ erlangensis (Schweigger, 1804) is less clear but may be interpreted as indirect emendation in favor of our *V. stagnina*.

Under the provision of the Code, no lectotypification is possible in the absence of any original material or an illustration. The only way to fix the use of *V. persiciola* remains a neotypification (Art. 7.7, 9.2 and 9.6, McNeill et al., 2006). Here, in our opinion, a pragmatic solution may be offered by selecting a type referable to either *V. elatior* or *V. stagnina*. In the first case the specimen number W 1889/305915 from the Funkenburg site (*locus classicus*) or a modern specimen may be proposed, in the second case a modern specimen is the only option. Each of the neotypifications would be in conflict with a part of the protologue, but we believe that the choice of the well preserved Funkenburg plant from the herbarium Reichenbach fil., referable to *V. elatior*, would be more evidence-based than the choice of any *V. stagnina* specimen. However, any neotypification is potentially reversible (Art. 9.17, McNeill et al., 2006) if some original material is discovered, and it should not be used to resolve a long-lasting dispute like this. Conservation of *V. persiciola* with a conserved type (Art. 14.9, McNeill et al., 2006) referable to *V. stagnina* would make it possible to retain this name instead of *V. stagnina* but it would bring about an undesirable nomenclatural change in some national floras (mainly in central European countries), which is in conflict with the aim of conservation as stated in the Code (Art. 14.2, McNeill et al., 2006). Further, we do not think that it is reasonable to use this option provided by the ICBN for such a notoriously confused name still in dispute. For these reasons we decided not to designate a neotype but to propose the name *V. persiciola* for rejection (Art. 56, McNeill et al., 2006) in a rejection proposal published simultaneously.


*Typus:* non designatus.

**Typification of Viola stagnina**

The name *Viola stagnina* was published by Schultes (1814). The original description is brief and poor in diagnostic characters, and it refers to a plant with developed capsules and cleistogamous flowers, collected in late spring or early summer. A comparison with the descriptions of other violet species described there (see above) makes it possible to link this description to *V. stagnina* as understood today. The name has to be cited as Kit. Ex Schult. because only the name is ascribed to Kitaibel but not the diagnosis and description (Art. 46.4, McNeill et al., 2006); this is different, however, in the case of, e.g. *Cerastium eriophorum* Kit. (Schultes, 1814). The corresponding *Viola* specimen sent by Kitaibel to
Schultes is still deposited at M as M-0111205. It bears the original label “Viola stagnina mihi. In Croatiae locis depressis in quibus aqua stagnat.”, glued on a newer label of the Royal Munich Herbarium with a note “A Kitaibelio ipso”. There is also a revision label of L. Gerstlauer on the sheet: “Viola stagnina Kit., Originalstück (Cotypus) von Kitaibel selbst. Rev. Gerstlauer, 1941”. The plants (two stems) represent a late spring or summer collection of V. stagnina as understood today, with cleistogamous flowers and capsules. It may be selected as lectotype. As Kitaibel used to send duplicates also to Willdenow (Z. Barina, in litt.), we searched also in the herbarium Willdenow; however, Kitaibel’s collections found under V. lactea (B-W04916-07) and V. montana (B-W04915-03) represent V. pumila (see above; Röpert, 2000 onward). There is also a sheet of V. stagnina in the herbarium Kitaibel (fascicle IX, nr 191) at BP. It is labelled “stagnina mihi ignota Willdenowio. In pratis humidis ad Brezovicam, integras plagas ita occupat, ut plantas reliquas fere omnes extendat” (Z. Barina, in litt.; Jávorka, 1936). The (unmounted) plants were revised by J. Kirschner in 1984. The collection consists of two species: the unbranched plant with large laminae and stipules is referable to V. elatior. The branched small-leaved plants correspond to V. stagnina. Kirschner marked one of the V. stagnina specimens as lectotype but this lectotypification has never been effectively published. The plants were probably collected during Kitaibel’s journey to Croatia in 1794 (Z. Barina, in litt.). As reported by Harmatta (1962), P. Kitaibel collected plants in Brezovica near Zagreb in Croatia in the second half of May 1794. However, there is no direct evidence that the plant in M represents the same collection as sheet IX/191 in the herbarium Kitaibel, so the latter should not be considered iso(lecto)type. Curiously, Croatian floras do not report V. stagnina (cf. Schlosser and Vukotinovic, 1869; Domac, 1994).


Typification of Viola elatior

Viola elatior was described by Fries (1828) after plants from Öland. The diagnosis and description clearly apply to V. elatior as understood today. This is also supported by the fact that Fries at the same time distinguished V. lactea (= V. pumila) and V. persicifolia (= V. stagnina). He found V. elatior during his visit to Öland in 1818 (cf. p. 276) and immediately noted the distinctive tall stature of this species: “Statura elatiore mox dignoscitur; nomen a primo Clusio sumtum & mihi a primo inventionis momento in mentem venit.” In the protologue two collections are cited, the first made by Fries himself and the second by A. Ahlquist. The corresponding specimens are found at UPS, labeled “Viola persicifolia. Rstn 18” (with later remarks “Runsten Ahlqvist” in a different handwriting; UPS 220503) and “Viola elatior. Öllandia ad Allgutsrum 1824. E. Fries scrispsit.” (UPS 220505), both stamped “Herb. Hartman”. Also the third specimen found at UPS and labeled “Viola elatior Fries. Öllandia. 1818. Haec sunt duo specimena prima in Suecia a me detexta” (UPS 220509), stamped “Herb. E. Fries”, may be considered original material. Plants on all three sheets
represent *V. elatior* as currently understood.

Nikitin (1988) analyzed the protologue of *V. elatior* (Fries, 1828) and argued that this name has to be considered illegitimate because Fries included in its synonymy *V. montana* L. (cited from the second edition of Species Plantarum in accordance with contemporary practice) without excluding the type (Art. 52.1, McNeill et al., 2006). However, in the same work by Fries, *V. montana* served as basionym for *V. canina* (= var.) *montana* (L.) Fries; here, *V. montana* was cited from Flora suecica (Linnaeus, 1755). As already shown by Kirschner and Skalicky (1989), Nikitin’s reasoning is not correct because Fries (l.c.) excluded the type of *V. montana* by implication, as described in Art. 52.2. Ex. 8 (McNeill et al., 2006). The fact that Fries cited *V. montana* from different Linnean works is unimportant because a name refers to the same type regardless of the work from which it is cited. A later lectotypification of *V. montana* by Nikitin (1988) is not retroactive (Art. 52.2. Note 2, McNeill et al., 2006); in other words, it cannot make a name published in 1828 nomenclaturally superfluous and, consequently, illegitimate.

Nikitin (1995) disagreed and repeated his arguments against the legitimate status of *V. elatior* and added another reason: in the synonymy (Fries, 1828), “*V. stipulacea* Hartm., 1820 and *V. elatior* Link, 1821” are included, both earlier and validly published, and therefore impossible to reject. “Therefore, if somebody does not agree yet that it is necessary to return to *V. montana* in its original sense, he will have to refrain from the use of *V. elatior* Fries and use the priority name *V. stipulacea* Hartman instead. The name *V. elatior* ascribed to Link, 1821, not to Fries, 1828, should be included in its synonymy”. However, neither of these statements are correct. Link (1821) only wrote in comments on his no 2314. *V. persiciolias* “Roth”: “Differt a *V. elata* (sic) Fries foliis laioribus, ovata basi, non scabris, bracteis minutis sub flore.” This is by no means a valid publication of a name, as already noted by Hylander (1945). Further, what Fries actually did was to include “*V. stipularis*. Fr. Hall. p. 47. Hartm.! Scand.”, not *V. stipulacea*, in the synonymy of *V. elatior*. Indeed, *Viola stipularis* was published by Fries (1817), but it is illegitimate due to homonymy with the South American *V. stipularis* Sw. (Prodr.: 117. 1788). The name *V. stipulacea* ascribed to Fries (it may be interpreted as a reference to Flora hallandica) was used by Hartman (1820). However, the epithet “stipulacea” was used by mistake instead of “stipularis”; it was clearly not intended as a replacement (avowed substitute; see Art. 33.3, McNeill et al., 2006). The epithets “stipularis” and “stipulacea” are confusingly similar and they may therefore be treated as homonyms (Art. 53.3, McNeill et al., 2006); the three subsequent mistakes by Hartman, Fries and Nikitin described above support our opinion. These facts demonstrate that Nikitin’s conclusions are wrong, and that *V. elatior* indeed does represent a legitimate name.


Lectotypus (hic designatus): “*Viola elatior*. Öelandia ad Allgutrum 1824. E. Fries scripsit” (UPS 220505!).


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