

5(1): 623. 1925) followed his view. A brief survey of Eurasian floras shows that *V. hornemanniana* is only rarely mentioned in the recent literature: it is then interpreted either as a synonym of *V. elatior* (e.g., Popescu & Sanda in Acta Bot. Horti Bucurestiensis, 1998: 124. 1998) or as a synonym of *V. canina* subsp. *ruppii* (All.) Schübler & Mart. (e.g., <http://www.tela-botanica.org/eflore/BDNFF/4.02/nn/72293/synonymie> or <http://www2.dijon.inra.fr/flore-france/vi-vz.htm>, both accessed 22 Aug 2010).

The name *Viola stipulacea* Hartm. was most probably published by mistake rather than as an avowed substitute for the illegitimate *V. stipularis* Fr. (Danilhelka & al., l.c.). It is neither included in *Index Kewensis* (Jackson, Index Kew. 2. 1893) nor in the IPNI (accessed on 22 Aug 2010). Searching for it in literature, we have found only one instance of its use (Ahlfquist in Kongl. Vetensk. Acad. Handl. 1821: 303. 1821), where it is cited from its locus classicus.

As stated above, we consider both names legitimate, and consequently, *Viola hornemanniana* as the earlier of both should replace the widely accepted *V. elatior* (for instances of its current applications see Van den Hof & al., l.c.) if the principle of priority is applied. However, the replacement of *V. elatior* by *V. hornemanniana*, in the past a repeatedly misapplied name, would be at the expense of clarity and would disturb nomenclatural stability for mere nomenclatural reasons, as would its replacement by the name *V. stipulacea*. Further, the latter

name is very similar to *V. stipularis* Sw. (Prodr.: 117. 1788), a name in current use (e.g., Robyns in Ann. Missouri Bot. Gard. 54: 82. 1967; Gargiullo & al., Field Guide Pl. Costa Rica: 398. 2008) and referring to a member of *V. sect. Leptidium* native to South America. Though it is unlikely for geographic reasons that *V. stipularis* and *V. stipulacea* will ever be treated in the same flora apart from a world-wide *Viola* monograph, this similarity is prone to cause some confusion, as it did in the past (Danilhelka & al., l.c.). For these reasons we are proposing the conservation of *Viola elatior* against *V. hornemanniana* and *V. stipulacea*. A rejection under Art. 56 (McNeill & al., l.c.) would also well serve the purpose but as these names, in contrast to *V. montana* and *V. persicifolia*, have not been source of any serious confusion recently, we decided to use the option provided by Art. 14. This would retain both names available for those who may have different taxonomic opinions; however, as there are no taxonomic difficulties connected with *V. elatior*, concerning either its circumscription or infraspecific classification, such a situation is very unlikely to occur.

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## (1986) Proposal to conserve the name *Viscum serotinum* (*Phoradendron serotinum*) against *V. leucarpum* (*Viscaceae*)

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(1986) *Viscum serotinum* Raf. in Ann. Gén. Sci. Phys. 5: 348. 1820 [Dicot.: Visc.], nom. cons. prop.

Lectotypus (vide Reveal & Johnston in Taxon 38: 107. 1989): U.S.A., Arkansas, Rafinesque (G).

(=) *Viscum leucarpum* Raf., Fl. Ludov.: 79. Oct-Dec 1817, nom. rej. prop.

Lectotypus (vide Reveal & Johnston in Taxon 38: 107. 1989): [U.S.A.] Carolinas, Walter (BM [Herb. Walter p. 110-F]).

The nomenclature of the widespread American mistletoe has been complicated by errors, omissions and misinterpretations for nearly 200 years. We propose conserving the name *Viscum serotinum* Raf., the basionym of *Phoradendron serotinum* (Raf.) M.C. Johnst. (in S.W. Naturalist 2: 45. 1957) against the earlier name *V. leucarpum* Raf. (l.c.), transferred to *Phoradendron* as *P. leucarpum* (Raf.) Reveal & M.C. Johnst. (l.c.). A history of the events associated with naming this species, followed by our justification for conservation of the name *P. serotinum*, is given below.

Pursh (Fl. Amer. Sept. 1: 114. 1814) doubtfully referred the “misletoes” of North America to *Viscum flavens* Sw. (Prodr.: 32. 1788) of the West Indies. In his *Flora*, Pursh misspelled the specific epithet as “*flavescens*” and commented “It is doubtful whether this is truly

*V. flavescens* [sic]; but the specimens observed by me in the West Indies were exactly the same as those of North America.” Subsequently, Rafinesque (l.c.) gave the name *V. leucarpum* to plants from Louisiana previously described but unnamed by Robin (Voy. Int. Louisiane: 458. 1807). Rafinesque associated his taxon with *V. flavens* sensu Pursh (“*flavescens*”) and with plants from the Carolinas questionably assigned by Walter (Fl. Carol.: 241. 1788) to *V. album* L., but effectively excluded the types of both Linnaeus’s and Swartz’s earlier names by his comment “Very different from the *V. album* of Europe, and the *V. flavescens* [sic] of South America, by its axillar few flowered glomerules.” An unnumbered specimen (on p. 110 of the bound folio Fraser/Walter Herbarium; Ward in J. Bot. Res. Inst. Texas 1: 420. 2007) was designated as lectotype by Reveal & Johnston (l.c.). In 1820 Rafinesque (in Ann. Gén. Sci. Phys. 5: 348. 1820) named *V. serotinum* without indicating a provenance for his species, although Trelease (Phoradendron: 33. 1916) later identified three Rafinesque specimens, from Pennsylvania and Arkansas (at G) and from Kentucky (at PH), that bore this name. The Arkansas specimen, from the Delessert herbarium (G-DEL), was effectively designated as type for *V. serotinum* by Reveal & Johnston (l.c.) who, while erroneously attributed this act to Trelease, nonetheless accepted this specimen as “lectotype” thereby meeting the conditions of Art. 7.11 (McNeill & al. in Regnum. Veg.

146. 2006). Trelease (l.c.) himself had made no comments on the type status of any collections associated with the name *V. serotinum*. Nuttall (in J. Acad. Nat. Sci. Philadelphia, ser. 2, 1: 149–189. 1848) proposed moving the New World “*Viscum*” mistletoes to *Phoradendron*, as well as applying the specific epithet “*flavescens*” (not “*flavens*”) to the American mistletoe. The formal transfer was done later by Gray (in Mem. Amer. Acad. Arts, ser. 2, 4: 59. 1849), but inasmuch as Gray, who cited only “*V. flavescens*, Pursh”, was not bound to adopt *V. flavens* Sw., a superfluous name for *V. racemosum* Aubl. (1775), his *P. flavescens* Nutt. ex A. Gray would be considered a new name. Prior to the monograph of *Phoradendron* by Trelease (l.c.), a number of other names currently identified with this species by Kuijt (in Syst. Bot. Monogr. 66: 411–425. 2003) were published including *V. tomentosum* DC. (1830), *V. oblongifolium* Raf. (1838, non DC. 1830), *V. ochroleucum* Raf. (1838), *V. rugosum* Raf. (1838), *V. villosum* Nutt. (1840), *P. orbiculatum* A. Gray (1849), *P. macrophyllum* (Engelm.) Cockerell (1900), *P. macrotomum* Trelease (1913), and *P. eatonii* Trelease (1913).

In 1957 Marshall Johnston first pointed out the fact that Pursh’s designation (“*Viscum flavescens*”), being a misspelling of *V. flavens* Sw. (a West Indian species), cannot be interpreted as a new name. Moreover, Johnston indicated that *V. leucarpum* Raf. (1817) was not equivalent to *Phoradendron leucocarpum* Patschovsky (1911), a Peruvian species. Because the two specific epithets differed by only two letters, he argued that the epithets were orthographic variants and would cause confusion if placed in the same genus, attributing his decision to Art. 75 of the *Paris Code* (Lanjouw & al. in Regnum Veg. 8. 1956). Consequently, he dismissed *V. leucarpum* as an eligible basionym and proposed *P. serotinum* (Raf.) M.C. Johnston. as a new combination for the American mistletoe.

The *Sydney Code* (Voss & al. in Regnum Veg. 111. 1983) first provided the mechanism for formal decisions on cases of parahomonymy, and such a decision was requested on the *leucarpum/leucocarpum* case in 1986 (Reveal & Johnston, l.c.). Subsequently, the

Committee for Spermatophyta (Brummitt in Taxon 37: 140. 1988) ruled that “*Phoradendron leucarpum*” and *P. leucocarpum* should not be treated as homonyms. Based on this, *P. leucarpum* (Raf.) Reveal & M.C. Johnston. (l.c.) was published as the correct name for this species. Nevertheless, in his 2003 monograph of *Phoradendron* Kuijt (l.c.: 414) erroneously stated “The earliest legitimate name for the taxon traditionally known as “*P. flavescens*” is *Viscum serotinum* Rafinesque, and the correct name in *Phoradendron* is *P. serotinum* (Rafinesque) M.C. Johnston subsp. *serotinum*.”

Within a span of three years, Rafinesque proposed two names for the American mistletoe: *Viscum leucarpum* (1817) and *V. serotinum* (1820). Given the 1988 Committee for Spermatophyta decision on parahomonymy (Brummitt, l.c.), it is undeniable that the correct name for this species in *Phoradendron* is now *P. leucarpum*. However, the name *P. serotinum* has been and continues to be used in publications referring to this species (e.g., a string search on “Phoradendron serotinum” and “Phoradendron leucarpum” of several bibliographic databases performed on 7 June 2010 returned the following number of citations: Biosis Previews: 22 to 8, CAB Abstracts: 9 to 16, Scopus: 4 to 4, Agricola: 6 to 3, Google Scholar: 201 to 188; a similar search of Google yielded 32,100 to 12,300 results in favor of *P. serotinum*). This name is also present on innumerable herbarium sheets across the world. All of these sheets would require annotation if *P. leucarpum* is to be used, plus the three subspecies names published by Kuijt (l.c.) would require new combinations. As stated in Art. 14.2 of the ICBN, “Conservation aims at retention of those names which best serve stability of nomenclature.” Moreover, the Preamble states that the goal is “the avoidance of the useless creation of names”. We propose that greater stability would be achieved through the use of *P. serotinum* and that generating more names and combinations only complicates an already complex nomenclatural situation. Use of *P. leucarpum* does not contribute any new biological or taxonomic knowledge about this taxon and may indeed inhibit information exchange.

## (1987–1988) Proposals to conserve the name *Danaeopsis* Heer ex Schimp. (fossil *Pteridophyta*) against *Marantoidea* (fossil *Pteridophyta*) and *Danaeopsis* C. Presl (recent *Pteridophyta*) and the name *Taeniopteris marantacea* (fossil *Pteridophyta*) with a conserved type

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(1987) *Danaeopsis* Heer ex Schimp., *Traité Paléontol. Vég.* 1: 613. 1869, nom. cons. prop.

Typus: *D. marantacea* (C. Presl) Schimp. (*Taeniopteris marantacea* C. Presl), nom. cons. prop.

(=) *Marantoidea* Jaeger, *Pflanzenverst. Bausandst.* Stuttgart: 28. t. 5. f. 5. 1827, nom. rej. prop.

Typus: *M. arenacea* Jaeger.

(H) *Danaeopsis* C. Presl, *Suppl. Tent. Pterid.*: 39. 1845, nom. rej. prop.  
Typus: *D. paleacea* (Raddi) C. Presl (*Danaea paleacea* Raddi).

(1988) *Taeniopteris marantacea* C. Presl in Sternb., *Versuch Fl. Vorwelt*: 2(7–8): 139. 1838, nom. cons. prop.

Typus: Switzerland, Triassic strata in Rütihard, Neue Welt, NMB B726, Heer collection, Natural History Museum, Basel, typ. cons. prop.

[If Prop. 1988 is not accepted, *Marantoidea*, proposed for rejection in Prop. 1987, will have an identity sign (≡) and the type paragraph for *Danaeopsis* Heer ex Schimp. in that proposal should read: