

# Taxonomic revision of *Sinningia* Nees : nomenclatural changes and new synonymies

Autor(en): **Chautems, A.**

Objektyp: **Article**

Zeitschrift: **Candollea : journal international de botanique systématique =  
international journal of systematic botany**

Band (Jahr): **45 (1990)**

Heft 1

PDF erstellt am: **17.07.2024**

Persistenter Link: <https://doi.org/10.5169/seals-879700>

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# Taxonomic revision of *Sinningia* Nees: nomenclatural changes and new synonymies

A. CHAUTEMS

## ABSTRACT

CHAUTEMS, A. (1990). Taxonomic revision of *Sinningia* Nees: nomenclatural changes and new synonymies. *Candollea* 45: 381-388. In English, English and French abstracts.

Sixteen new combinations and a new name are proposed preliminary to a revision of the genus *Sinningia* Nees. Revised synonymies, typifications and a few comments on the taxonomic changes are provided.

## RÉSUMÉ

CHAUTEMS, A. (1990). Révision taxonomique de *Sinningia* Nees: changements nomenclaturaux et nouvelles synonymies. *Candollea* 45: 381-388. En anglais, résumés anglais et français.

Seize nouvelles combinaisons et un nom nouveau sont proposés préliminairement à une révision du genre *Sinningia* Nees. Les synonymies révisées, les typifications et quelques commentaires sur les changements taxonomiques sont présentés.

## Introduction

CLAYBERG (1968, 1970) demonstrated that *Rechsteineria* Regel should be merged with *Sinningia* Nees, as a result of cytogenetic studies of hybrids produced between the two taxa. Since then MOORE (1973), DENHAM (1974), WIEHLER (1975, 1978, 1981) and SKOG (1987) made 23 combinations in the latter genus, mainly based on the cultivated species. While working on a taxonomic revision of the whole genus *Sinningia* and preparing contributions for various regional Brazilian floras and for Flora del Paraguay, I see the need to publish several new combinations and synonymies. These results are based on recent fieldwork and examination of collections in the following herbaria: B, CEPEC, F, FCQ, G, GUA, HBR, HCMT, ICN, K, MBM, MBML, MO, NY, P, PACA, PY, R, RB, SEL, SP, SPF, UEC, UFJF, US.

The genus *Sinningia* as a whole includes some 55 species, but more fieldwork and herbarium studies are needed for a complete understanding of this mainly Brazilian taxon.

Below are several new combinations and one new name with complete synonymies based on studies of specimens and literature.  $\equiv$  denotes homotypic synonymy, = denotes heterotypic synonymy.

### 1. *Sinningia calcaria* (Dusén ex Malme) Chautems, **comb. nov.**

$\equiv$  *Corytholoma calcareum* Dusén ex Malme, Ark. Bot. 29A(3): 7. 1937. Type: Brazil, Parana, Trancheira, *Dusén 8711* (holotype, S, photo!; isotype, K!).

- ≡ *Rechsteineria calcaria* (Dusén ex Malme) Hoehne, Sellowia 9: 56. 1958.
- = *Rechsteineria calcaria* forma *macrophylla* Hoehne, Sellowia 9: 56. 1958. Type: Brazil, Sao Paulo, Rio Tijuco, *Kuhlmann s.n.* (holotype, SP!).

*Sinningia calcaria* belongs to a group with one or two leaf whorls; its short petioles and the four leaves make it distinct from *S. douglasii*, which usually bears six leaves with long petioles.

## 2. *Sinningia cochlearis* (Hook.) Chautems, **comb. nov.**

- ≡ *Gesneria cochlearis* Hook., Bot. Mag. 66: pl. 3787. 1840. Type: described from cult. Glasgow Bot. Gard., originally from Brazil, Organ Mountains (extant?), (ex char.).
- ≡ *Rechsteineria cochlearis* (Hook.) O. Kuntze, Revis. Gen. Pl. 2: 477. 1891.

A few specimens of this species were examined in two herbaria in Rio de Janeiro. They respond very well to Hooker's description and illustration. These specimens were collected in the Organ mountains; Hooker indicates the same locality for the material sent to England and used for his diagnosis.

## 3. *Sinningia conspicua* (Seem.) Nichols., Ill. Dict. Gard. 3: 436. 1887.

- ≡ *Biglandularia conspicua* Seem., Gard. Chron. 1868 (28): 738. 1868. Type: described from cult., originally from Brazil (extant?), (ex char.).
- ≡ *Rosanowia conspicua* (Seem.) Regel, Gartenflora 21: 33, pl. 712. 1872.
- = *Sinningia caulina* Malme, Ark. Bot. 29A(3): 13. 1937. Type: Brazil, Parana, Morungava, *Dusén 16543* (holotype, S, microfiche!).
- = *Sinningia eumorpha* H. E. Moore, Gentes Herb. 8(5): 390, pl. 124, 1954. Type: Cult. Cornell Univ., *Moore 6740* (holotype, BH).

The diagnosis of *Biglandularia conspicua* indicates a yellow corolla. *Sinningia eumorpha* has a white corolla in the wild as well as in the cultivated type material. However, all the other characters of *S. eumorpha* match exactly the description and plate of *B. conspicua*; the new synonymy is published here. This species is fairly well known in cultivation under the name *Sinningia eumorpha* and has been used in several crosses within the genus *Sinningia*.

## 4. *Sinningia curtiflora* (Malme) Chautems, **comb. nov.**

- ≡ *Corytholoma curtiflorum* Malme, Ark. Bot. 29A(3): 5. 1937. Type: Brazil, Parana, Jacarehy, locis arenosis graminosis, *Dusén 18096* (isotype, F!).
- ≡ *Rechsteineria curtiflora* (Malme) Hoehne, Sellowia 9: 54. 1958.

*Sinningia curtiflora* has often been mistaken for *S. allagophylla*. The former is a much taller plant. I observed some specimens in the wild reaching two meters. The inflorescence is formed of a dense spike of very short tubular corollas. Its distribution is restricted to a rather small stretch of the coastal rain forest in the states of Parana and Santa Catarina.

## 5. *Sinningia defoliata* (Malme) Chautems, **comb. nov.**

- ≡ *Corytholoma defoliata* Malme, Ark. Bot. 29A(3): 6. 1937. Type: Brazil: Mato Grosso, Serra da Chapada, pr. Boca da Serra, *Malme II: 3497* (holotype, S, photo!).
- ≡ *Rechsteineria defoliata* (Malme) Hoehne, Sellowia 9: 58. 1958.

*Sinningia defoliata* is related to *S. tuberosa*, but the calyx lobes are wider, the corolla is larger and this taxon is, so far, only known from the state of Mato Grosso.

## 6. *Sinningia douglasii* (Lindl.) Chautems, **comb. nov.**

- ≡ *Gesneria douglasii* Lindl., Bot. Reg. 13: pl. 1110. 1827. Trans. Hort. Soc. London 7: 62. 1830, (read 1826). Type: Cult. Hort. Soc. (holotype, CGE!).
- ≡ *Rechsteineria douglasii* (Lindl.) O. Kuntze, Revis. Gen. Pl. 2: 474. 1891.
- ≡ *Corytholoma douglasii* (Lindl.) Voss, Vilmorin's Blumengaert., ed. 3, 1: 788. 1894.
- = *Gesneria verticillata* Hook., Bot. Mag. 54: pl. 2776. 1827, not Cav., 1801. Type: described from cult., sent from Rio de Janeiro (extant?).

- ≡ *Corytholoma douglasii* var. *verticillata* (Hook.) Tours., Darwiniana 14: 569. 1967.
- ≡ *Tulisma verticillata* (Hook.) Raf., Fl. Tellur. 2: 98. 1837.
- = *Gesneria douglasii* var. *verticillata* (Hook.) Hook., Bot. Mag. 64: pl. 3612. 1837.
- = *Gesneria maculata* Mart., Nov. Gen. Sp. Pl. 33, pl. 215. 1829. (Nomen inval. pro syn.).
- ≡ *Gesneria maculata* Mart. ex Hanst. in Mart., Fl. Bras. 8(1): 361. 1864. (Nomen illeg. = *Gesneria purpurea* Lindl., 1852).
- ≡ *Reichsteineria maculata* (Mart. ex Hanst.) O. Kuntze, Revis. Gen. Pl. 2: 274. 1891.
- ≡ *Corytholoma maculatum* (Mart. ex Hanst.) Fritsch, Engl. & Prantl, Nat. Pflanzenfam. 4(3b): 181. 1894.
- = *Orobanche verticillata* Vell., Fl. Flum. 255. 1829. Atlas 6: pl. 64. 1831.
- ≡ *Corytholoma verticillatum* (Vell.) Fritsch, Bih. Kongl. Svenska Vetensk.-Akad. Handl. 24 (Afd. 3, 5): 19. 1898.
- ≡ *Reichsteineria verticillata* (Vell.) L. B. Smith, Contr. Gray Herb. 124: 6. 1939.
- ≡ *Sinningia verticillata* (Vell.) H. E. Moore, Baileya 19: 40. 1973.
- = *Orobanche tubulosa* Vell., Fl. Flum. 259. 1829. Atlas 6: pl. 76. 1831. (ex char.).
- = *Gesneria punctata* H. Jacq., Ann. Fl. Pomone 1837: 254, pl. 32, 1837. (ex char.).
- = *Gesneria polyantha* DC., Prodr. 7: 528. 1839. Type: Brazil, Santa Catarina, *Gaudichaud 182* (holotype, G-DC!). Not *G. polyantha* sensu Hooker, 1843 = *S. gigantifolia* Chautems.
- ≡ *Reichsteineria polyantha* (DC.) O. Kuntze, Revis. Gen. Pl. 2: 474. 1891.
- ≡ *Corytholoma polyanthum* (DC.) Fritsch, Bot. Jahrb. Syst. 37: 497. 1906.
- ≡ *Sinningia polyantha* (DC.) Wiehler, Selbyana 5(3-4): 383. 1981.
- = *Gesneria purpurea* Lindl., Paxton's Fl. Gard. 3: 17, pl. 76. 1852. (ex char.).
- = *Gesneria pardina* Decne. ex Planch., Fl. Serres Jard. Eur. 7: 167. 1852. (Nomen nudum pro syn.). Not Hook. 1848.
- = *Gesneria hookeri* Decne. ex Planch., Fl. Serres Jard. Eur. 7: 167. 1852. (Nomen nudum pro syn.).
- = *Gesneria confertifolia* Hanst. in Mart., Fl. Bras. 8(1): 360. 1864. Type: Brazil, *Sellow s.n.* (not extant?).
- ≡ *Reichsteineria confertifolia* (Hanst.) O. Kuntze, Revis. Gen. Pl. 2: 474. 1891.
- ≡ *Corytholoma confertifolia* (Hanst.) Fritsch, Bot. Jahrb. Syst. 29 (Beibl. 65): 19. 1900.

CLAYBERG (1967), had listed most of these basionyms without comment, assuming that Velloso's *Flora Fluminensis* had been published in 1826; meanwhile it was established that this work dates only from 1829, a short time after Martius' treatment of the Gesneriaceae in *Nova Genera et Species Plantarum* (CARAUTA, 1973).

Lindley validly published the basionym of this species in December 1827, with an illustration in the *Botanical Register*. However, he had previously introduced the species during an oral communication for the Horticultural Society of London in 1826, but the transcription of this presentation was published only in December 1830. Hooker's description and illustration of the same species with the name *Gesneria verticillata*, which appeared in October 1827, is illegitimate, because of an earlier homonym by Cavanilles, which belongs now to the genus *Heppiella*. Lindley's basionym remains therefore the earliest valid name available.

The ornamental qualities of this taxon and its wide distribution between Rio de Janeiro and the northernmost part of Argentina may explain the very large number of names published.

#### 7. *Sinningia elatior* (Kunth) Chautems, **comb. nov.**

- ≡ *Gesneria elatior* Kunth, in H. B. K., Nov. Gen. Sp. Pl. 2: fol. ed. 315, qto. ed. 393. 1818. Type: Venezuela, Cerro del Tumiriquiri, *Humboldt & Bonpland 191* (holotype, P!).
- ≡ *Corytholoma elatius* (Kunth) Fritsch, Bih. Kongl. Svenska Vetensk. Akad. Handl. 24 (Afd. 3, 5): 25. 1898.
- ≡ *Reichsteineria elatior* (Kunth) O. Kuntze, Revis. Gen. Pl. 2: 474. 1891.
- = *Gesneria stricta* Hook. & Arn., J. Bot. (Hooker) 1: 280. 1834. Type: Brazil, Rio Grande do Sul, *Tweedie s.n.* (holotype, K!).

- ≡ *Corytholoma strictum* (Hook. & Arn.) Decne., Rev. Hort. 20 (ser. 3, 2): 467. 1848.
- ≡ *Rechsteineria stricta* (Hook. & Arn.) O. Kuntze, Revis. Gen. Pl. 2: 474. 1891.
- ≡ *Sinningia stricta* (Hook. & Arn.) Wiehl., Selbyana 1(1): 33. 1975.
- = *Gesneria fragilis* Poepp., in Poepp. & Endl. Nov. Gen. Sp. Pl. 3: 7 1840. Type: Peru, Huanuco, *Poeppig 1171* (holotype, W, photo!).
- = *Gesneria sceptroides* Hanst., Ind. Sem. Hort. Bot. Berol., App. 1861: 7. 1861. Type: Colombia, (B, not extant), (ex char.).
- ≡ *Rechsteineria sceptroides* (Hanst.) O. Kuntze, Revis. Gen. Pl. 2: 474. 1891.
- = *Gesneria spicata* Hort. Berol. ex Hanst. in Mart., Fl. Bras. 8(1): 371. 1864. (Nomen nudum pro syn.).
- = *Corytholoma igneum* (Mart.) Fritsch, Bih. Kongl. Svenska Vetensk. Akad. Handl. 24 (Afd. 3, 5): 23. 1898. Illeg., not Decne., 1848, which is *Sinningia sceptrum* (Mart.) Wiehler.
- = *Corytholoma igneum* var. *villosum* Fritsch, Bih. Kongl. Svenska Vetensk. Akad. Handl. 24 (Afd. 3, 5): 24. 1898. Type: Brazil, Mato Grosso, Rio Jocuara, *Lindman 2989b* (S?, not seen), (ex. char).
- ≡ *Rechsteineria ignea* (Mart.) Fritsch, Bot. Jahrb. Syst. 50: 436. 1913.
- = *Rechsteineria ignea* var. *anomala* Hoehne, Sellowia 9: 70. 1958. Type: Brazil, Sao Paulo, Jundiai, *Pickel 5178* (holotype, SP!).
- = *Rechsteineria ignea* var. *loefgrenii* Hoehne, Sellowia 9: 70. 1958. Type: Brazil, Sao Paulo, Patrocinio do Sapucaí, *Loefgren & Edwall 2126* (holotype, SP!).
- = *Rechsteineria tenera* Fritsch, Bot. Jahrb. Syst. 54 (Beibl. 119): 38. 1916. Type: Peru, Cajamarca, Jaën, Tal des Flusses Tabaconas, *Weberbauer 6152* (holotype, B, not extant; lectotype, US!; isotype, F!).

This species and several later synonyms were placed together under *Sinningia incarnata* by WIEHLER (1978), based on the corollas having a distinct hood formed by the two upper lobes. By examining some vegetative characters from many specimens, I was able to separate *S. elatior* very easily from the typical *Sinningia incarnata*.

Their ecology and geographic distribution differ as well.

*Sinningia elatior*:

- unbranched stem
- leaves usually ternate
- petioles barely developed
- long leafless inflorescence axis
- flowers in the axils of reduced bracts
- calyx with lanceolate lobes
- found in open vegetation, very often in swampy areas from Northern Argentina to Venezuela through Paraguay, Brazil, Bolivia, Peru and Colombia.

*Sinningia incarnata*:

- usually sparsely branched stem
- leaves usually opposite with small axillary leaves
- petioles developed
- flowers in the axils of leaves or large bracts
- calyx campanulate, lobes ovate acute
- found in savannas, pastures or steep slopes, often in rocky areas from Southern Mexico to NE Brazil through Central America, Colombia, Venezuela and the Guianas.

**8. *Sinningia gigantifolia* Chautems, nom. nov.**

- = *Gesneria discolor* Lindl., Bot. Reg. 27: pl. 63, misc. 45. 1841. Type: Cult. Hort. Soc. (holotype, CGE!). Not *Sinningia discolor* (Decne. ex Hanst.) Sprague, 1904.

- ≡ *Rechsteineria discolor* (Lindl.) O. Kuntze, Revis. Gen. Pl. 2: 474. 1891.
- = *Gesneria polyantha* Hook., Bot. Mag. 16: pl. 3995. 1843, not DC., 1839. Type: described from cult., sent from Brazil, Rio de Janeiro, Organ Mountains (extant?).

Following Hooker's confusion, the name *polyantha* was misapplied when WIEHLER (1981) transferred it to *Sinningia*. After having seen the types of the both and collected the two different species, the legitimate identities have to be corrected. In addition, a new name has to be given in the genus *Sinningia*, because of the already existing combination.

**9. *Sinningia glazioviana* (Fritsch) Chautems, comb. nov.**

- ≡ *Corytholoma glaziovianum* Fritsch, Bot. Jahrb. Syst. 37: 501. 1906. Type: Brazil, Sao Paulo, campos da Bocaina, Rio Mambucana, *Glaziou 11590* (holotype, not seen; isotypes, G!, K!, P!).
- ≡ *Rechsteineria glazioviana* (Fritsch) Hoehne, Sellowia 9: 76. 1958.

I collected this species in 1984 and have grown it since that time in Geneva. The corolla is large and very showy. The stem is erect, the leaves are narrowly ovate. It grows on rocks along or in the middle of streams. The distribution is restricted to the Serra da Bocaina, a mountain range located on the border between the states of Rio de Janeiro and Sao Paulo.

**10. *Sinningia insularis* (Hoehne) Chautems, comb. nov.**

- ≡ *Rechsteineria insularis* Hoehne, Sellowia 9: 56. 1958. Type: Brazil, Sao Paulo, Ilha dos Alcatrazes, *Luederwaldt & Pinto s.n.* (holotype, SP!).

*Sinningia insularis* is known so far only by the type collection and another specimen found in the same locality. It differs from all the other species of the genus.

**11. *Sinningia lateritia* (Lindl.) Chautems, comb. nov.**

- ≡ *Gesneria lateritia* Lindl., Bot. Reg. 23: pl. 1950. 1837. Type: Cult. Hort. Soc. (Not extant in CGE, nor in K), (ex char.).
- ≡ *Gesneria bulbosa* var. *lateritia* (Lindl.) Klotzsch, Verh. Vereins Beförd. Gartenbaues Königl. Preuss. Staaten 16: 160. 1842.

This species is related to *S. cooperi*. The main differences are the erect habit, the long, stiff and red hairs on the inflorescence and the smaller brick-red corollas in *S. lateritia*.

**12. *Sinningia leopoldii* (Scheidw. ex Planch.) Chautems, comb. nov.**

- ≡ *Gesneria leopoldii* Scheidw. ex Planch., Fl. Serres Jard. Eur. 7: 167. 1852. Type: Brazil, from cult. (extant?).
- ≡ *Rechsteineria leopoldii* (Scheidw. ex Planch.) O. Kuntze, Revis. Gen. Pl. 2: 474. 1891.
- = *Gesneria tetraphylla* Hort. ex Hanst. in Mart., Fl. Bras. 8(1): 359. 1864. (Nomen nudum pro syn.).
- = *Corytholoma oligantha* Malme, Ark. Bot. 29A(3): 7. 1937. Type: Brazil, Parana, Ypiranga, *Dusén 6812* (holotype, S, photo! = 6818).
- ≡ *Rechsteineria oligantha* (Malme) Hoehne, Sellowia 9: 74. 1958.
- = *Rechsteineria oligantha* forma *rupestris* Hoehne, Sellowia 9: 74. 1958. Type: Brazil, Santa Catarina, Ilha, Rio Tavares, *Smith & Reitz 6183a* (holotype, US!; isotype, R!).

This species has so far been considered to be a synonym of *Sinningia douglasii* (Lindley) Chautems, but the inflorescence habit, the red coloration under the leaves and the long hairs on the peduncles and pedicels differ from that species.

**13. *Sinningia lineata* (Hjelm.) Chautems, comb. nov.**

- ≡ *Rechsteineria lineata* Hjelm., Bot. Not. 1937: 302. 1937. Type: Brazil, Parana, from cult., *A. Hässler s.n.* (holotype, not seen; photo reproduced in diagnosis).

This species was put in synonymy under *Sinningia macropoda* Sprague by MOORE (1973). I recently observed and collected this species in Parana and found that *S. lineata* differs in various

characters from it, like the habit, the stem coloration, the shape and texture of the leaves. The latter is currently in cultivation in Europe and in the U.S.; I examined as well a few herbarium specimens collected in the state of Santa Catarina in Brazil.

**14. *Sinningia macrostachya* (Lindl.) Chautems, **comb. nov.****

- ≡ *Gesneria macrostachya* Lindl., Bot. Reg. 14: pl.1202. 1828. Type: Cult. Hort. Soc. (holotype, CGE!).
- ≡ *Rechsteineria macrostachya* (Lindl.) L. B. Smith, J. Wash. Acad. Sci. 45: 200. 1955.
- = *Gesneria latifolia* Mart. in Otto & Schlechtend., Verh. Vereins Beförd. Gartenbaues Königl. Preuss. Staaten 5: 219. 1829. Type: Brasilia extratropica, *Sellow s.n.* (holotype, not extant?; lectotype, pl. 1 of Mart. in Otto & Schlechtend., 1829, lectotypified here).
- ≡ *Rechsteineria latifolia* (Mart. in Otto & Schlechtend.) O. Kuntze, Revis. Gen. Pl. 2: 474. 1891.
- ≡ *Corytholoma latifolia* (Mart. in Otto & Schlechtend.) Fritsch, Bih. Kongl. Svenska Vetensk.-Akad. Handl. 24 (Afd. 3, 5): 22. 1898.

In addition to Sellow's material, Martius cited material from Minas Gerais which actually belongs to a different species. After having studied this species in the wild and in herbaria, I am certain that its distribution is restricted to the state of Rio Grande do Sul, with a small extension into the southernmost part of Santa Catarina. Lindley cited material "sent to the Horticultural Society from Rio de Janeiro, by Mr. Sellow", but the plant had certainly been collected in Rio Grande do Sul.

**15. *Sinningia piresiana* (Hoehne) Chautems, **comb. nov.****

- ≡ *Rechsteineria piresiana* Hoehne, Sellowia 9: 60. 1958. Type: Brazil, Sao Paulo, Descalvado, *Pires s.n.* (holotype, SP!).

The examination of the type material convinced me that this species is a taxon different from any other in the genus *Sinningia*; the new combination is needed, since the whole genus *Rechsteineria* is now put in synonymy.

**16. *Sinningia schomburgkiana* (Kunth & Bouché) Chautems, **comb. nov.****

- ≡ *Gesneria schomburgkiana* Kunth & Bouché, Ind. Sem. Hort. Bot. Berol. 1844: 10. 1844. Type: Guyana, Mout. Conocon (= Kanuku Mountains), *Schomburgk II8* (lectotype K!; isotype, BM, not seen).
- ≡ *Rechsteineria schomburgkiana* (Kunth & Bouché) O. Kuntze, Revis. Gen. Pl. 2: 474. 1891.
- = *Rechsteineria crenata* Fritsch, Notizbl. Bot. Gart. Berlin-Dahlem 6(60): 381. 1915. Type: Brazil, Rio Branco (= Roraima), Ule 8320 (holotype, B, not extant; isotypes, F!, G!, L, photo!, UC!).
- = *Gesneria guianensis* Benth., London J. Bot. 5: 360. 1846. Type based on same type as *G. schomburgkiana*.

This taxon had been included in the synonymy of *Sinningia incarnata* (Aubl.) Denham by Wiehler (1978). The corolla morphology is rather similar, but the habit and the flowers born in the leaf axils, as noted by LEEUWENBERG (1958), are distinct enough for placing *Sinningia schomburgkiana* in a different species.

**17. *Sinningia warmingii* (Hiern) Chautems, **comb. nov.****

- ≡ *Gesneria warmingii* Hiern, Vidensk. Meddel. Dansk Naturhist. Foren. Kjøbenhavn 1877-78: 90. 1877. Type: Brazil, Minas Gerais, Lagoa Santa, *Warming s.n.* (lectotype, C, photo!; isotype, K, photo!).
- ≡ *Rechsteineria warmingii* (Hiern) Hjelmq., Bot. Not. 1937: 297. 1937.
- ≡ *Corytholoma warmingii* (Hiern) Tours., Darwiniana 14: 569. 1967.
- = *Gesneria rutila* var. *atrosanguinea* Lindl., Bot. Reg. 15: pl. 1279. 1829. Type: described from cult., originally collected from Brazil, Rio de Janeiro (not extant), (ex char.).

- ≡ *Rechsteineria atosanguinea* (Lindl.) O. Kuntze, Revis. Gen. Pl. 2: 474. 1891, not *Gesneria atosanguinea* Hort. ex Lémon which is a later synonym for *Sinningia cooperi* (Paxt.) Wiehler.
- = *Gesneria lindleyi* Hook., Bot. Mag. 64: pl. 3602. 1837. Type: Descr. from cult., *Lindley s.n.* (lectotype, K!).
- ≡ *Corytholoma lindleyi* (Hook.) Decne., Rev. Hort. 20 (ser. 3, 2): 467. 1848.
- ≡ *Rechsteineria lindleyi* (Hook.) Fritsch, Bot. Jahrb. Syst. 50: 437. 1913.
- ≡ *Sinningia claybergiana* H. E. Moore, Baileya 19(1): 39. 1973, based on *Gesneria lindleyi* Hook., not *Sinningia lindleyi* Schauer, 1834.
- = *Rechsteineria lindleyi* var. *macrophylla* Hoehne, Sellowia 9: 71. 1958. Type: Brazil, Rio Grande do Sul, ad montem Ferrapras prope Hamburgo, *B. Rambo 41608* (holotype, PACA not seen; isotype, HBR!).
- = *Corytholoma sceptrum* var. *arenosa* Chod. ex Hassler, Bull. Herb. Boissier 2(3): 548. 1903. Type: Paraguay, Arroyo Primero, cursus superioris fluminis Apa, *Hassler 8491* (lectotype, G!, designated here).
- = *Rechsteineria multiflora* Fritsch, Bot. Jahrb. Syst. 50: 437. 1913. Type: Paraguay, Cordillera de Tobati, *Fiebrig 825* (holotype, B extinct; lectotype, K!; isotype, E, photo!, G!, P!, HBG!).
- ≡ *Corytholoma multiflorum* (Fritsch) Hassler, Add. Pl. Hassler. 5. 1917.
- = *Rechsteineria stenantha* Fritsch, Bot. Jahrb. Syst. 50: 437. 1913. Type: Bolivia, Tarija, Bermejo, 1400 m, *Fiebrig 2109* (holotype, B, not extant), (ex char.).
- = *Rechsteineria weberbaueri* Fritsch, Bot. Jahrb. Syst. 50: 435. 1913. Type: Peru, Cajamarca, Celendin, zwischen Tupen und Rambran, 1400 m, *Weberbauer 4800* (holotype B, not extant), (ex char.).
- = *Rechsteineria peruviana* Fritsch, Bot. Jahrb. Syst. 54 (Beibl.) 119: 37. 1916. Type: Peru, Huancavelica, Tayacaja, unter Colcabamba, 2200 m, *Weberbauer 6446* (holotype, B, not extant; lectotype, F!).
- = *Rechsteineria microphylla* Fritsch, Meded. Rijks-Herb. 29: 53. 1916. Type: Bolivia, "Montes" zwischen Cumbarute und Parapiti, 700-800 m., *Herzog 1170* (lectotype, W not seen; isotypes, G!, S, L).
- = *Rechsteineria schlickmannii* Hoehne, Sellowia 9: 68. 1958. Type: Brazil, Santa Catarina, Braço Norte, *Reitz 5938* (holotype, HBR!).

This species had been included in the synonymy of *Sinningia sceptrum* (Mart.) Wiehler by WIEHLER (1978), assuming that *Gesneria lindleyi* and *G. sceptrum* were conspecific. Both have rather similar tubular corollas. However, they differ in their vegetative characters, and their geographical distribution. *Rechsteineria schlickmannii* Hoehne is added here as a new synonym.

The size of the leaves is extremely variable; the leaf blade is almost completely reduced in the material described by Fritsch, under the name *Rechsteineria microphylla*, but can measure well over 10 cm in the specimens found in Brazil. All kinds of intermediate morphologies are found, for example, as in the material collected in northern Argentina, in Jujuy province. This led me to consider conspecific all the taxa described by Fritsch in Bolivia and Peru.

*Sinningia warmingii* is characterized by:

- a branched stem, rarely exceeding 1.2 m
- leaves opposite, ternate or even verticillate, with petioles up to 4.0 cm
- its distribution in Peru, Bolivia, Northern Argentina, Paraguay, southern Brazil, less frequent in Minas Gerais
- found often in rocky areas, roadsides; sometimes in sandy soil.

*Sinningia sceptrum* is characterized by:

- an unbranched stem, reaching sometimes 2.0 m
- leaves ternate with very short petioles

- its distribution among the states of Rio de Janeiro, Minas Gerais, Espirito Santo and southern Bahia.
- found usually in humid, marshy, open environments.

Excluded species:

**18. *Vanhouttea fruticulosa* (Glaziou ex Hoehne) Chautems, **comb. nov.****

- ≡ *Gesneria fruticulosa* Glaziou, Bull. Soc. Bot. France 58, Mem. 3: 514. 1914. Nomen nudum.
- ≡ *Rechsteineria fruticulosa* Glaziou ex Hoehne, Sellowia 10: 66. 1958. Type: Brazil, Rio de Janeiro, Alto de Macahé, *Glaziou 17707* (holotype, R!; isotypes, BR, C, K!, P!).

This species seems to be a very restricted endemic taxon. I observed it in its type locality, which is the only place where it has been encountered so far. As the stem shows a great number of very short internodes and there is no evidence of a tuberous root, I believe that this taxon is better placed in the shrubby genus *Vanhouttea*.

#### ACKNOWLEDGMENTS

I am grateful to the curators of the cited herbaria for their loans or their assistance during my visits. My special thanks to Dr. L. Skog, Botany Department, Smithsonian Institution, for the extensive documentation made available during my stays in the US herbarium, and for reviewing the manuscript.

Financial support for this study was provided by a post-doctoral research grant from FNSRS (Fonds national suisse de la recherche scientifique).

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