



Article scientifique

Article

2023

Published version

Public access

This is the published version of the publication, made available in accordance with the publisher's policy.

(2975) Proposal to conserve the name *Sinningia* against *Paliavana* (*Gesneriaceae*)

Chautems, Alain Philippe; Perret, Mathieu

How to cite

CHAUTEMS, Alain Philippe, PERRET, Mathieu. (2975) Proposal to conserve the name *Sinningia* against *Paliavana* (*Gesneriaceae*). In: *Taxon*, 2023, vol. 72, n° 4, p. 936–937. doi: 10.1002/tax.13009

This publication URL: <https://archive-ouverte.unige.ch/unige:171248>

Publication DOI: [10.1002/tax.13009](https://doi.org/10.1002/tax.13009)

© This document is protected by copyright. Please refer to copyright holder(s) for terms of use.

Last update in Archive ouverte UNIGE on 11.09.2023 14:51

ex DC. in its traditional concept and would eliminate the need for a new name for the Canarian plant. On the contrary, failure to accept this proposal would create undesirable nomenclatural instability and also would add unnecessary confusion to plant taxonomists, phytosociologists and plant conservationists, some even affecting some current Spanish and European laws on natural and seminatural habitat conservation.

Author information

MBC, <https://orcid.org/0000-0002-3294-5637>

MÁA, <http://orcid.org/0000-0003-3768-9203>

MMA, <http://orcid.org/0000-0002-2605-9575>

Acknowledgements

The curators of the herbaria cited in the text are kindly thanked. We are also very grateful, as usual, to John McNeill (Royal Botanic Garden, Edinburgh, Scotland, U.K. & Royal Ontario Museum, Toronto, Ontario, Canada) and John Wiersema (Department of Botany, Smithsonian Institution, Washington, D.C., U.S.A.) for their editorial comments and wise suggestions. This work was partly supported by the grants UAUSTI21-04, UAUSTI22-05, ACIE20-01, ACIE21-01 ACIE22-01, and VIGROB2022-166, from diverse programmes of Universidad de Alicante, Spain.

(2975) Proposal to conserve the name *Sinningia* against *Paliavana* (*Gesneriaceae*)

Alain Chautems  & Mathieu Perret 

Conservatoire et Jardin botaniques de la Ville de Genève and Department of Plant Sciences, University of Geneva, C.P. 71, 1292 Chambésy, Switzerland

Address for correspondence: Alain Chautems, alain.chautems@ville-ge.ch

DOI <https://doi.org/10.1002/tax.13009>

First published as part of this issue. See online for details.

(2975) *Sinningia* Nees in Ann. Sci. Nat. (Paris) 6: 297. Nov 1825 [*Gesner.*], nom. cons. prop.

Typus: *S. helleri* Nees.

(=) *Paliavana* Vandelli, Fl. Lusit. Bras. Spec.: 40. 1788, nom. rej. prop.

Typus (vide Moraes in Feddes Repert. 130: 36. 2019): *P. sericiflora* Benth.

Phylogenetic studies (Perret & al. in Amer. J. Bot. 90: 445–460. 2003, in Evolution 61: 1641–1660. 2007; Moeller & Clark in Selbyana 31: 95–125. 2013; Ogutcen & al. in Molec. Phylogen. Evol. 157: 107068. 2021) clearly support the monophyly of the subtribe *Ligeriinae* (*Gesneriaceae*) that comprises the genera *Sinningia* (78 species), *Paliavana* (6 species) and *Vanhouttea* (9 species) (Weber & al. in Selbyana 31: 68–94. 2013; Araujo & al. in Flora e Funga do Brasil [<https://floradobrasil.jbrj.gov.br/FB7879>, accessed 2 May 2023]; Chautems & Perret in Candollea 77: 137–144. 2022). These genera occur mostly in Brazil and have been traditionally distinguished based on their growth habit, with *Sinningia* producing annual shoots arising from a basal perennial tuber, whereas *Paliavana* (with flowers belonging to bee or bat syndrome) and *Vanhouttea* (with flowers belonging to hummingbird syndrome) are shrubs or subshrubs without tubers (Perret & al., l.c. 2007; Chautems & al. in Palmengarten 85: 108–117. 2021; Araujo & al., l.c.). However, the habit is not fully consistent at the generic level since a few *Sinningia* species like *S. gesneriifolia*, *S. reitzii* or *S. mauroana* lack tubers and possess a shrubby habit with lignified perennial stem as in *Paliavana* and *Vanhouttea*. Phylogenetic analyses including most known species of *Ligeriinae* have shown that

Paliavana and *Vanhouttea* are not monophyletic, but are split into several distinct clades that are embedded within a paraphyletic *Sinningia* (Perret & al., l.c. 2003, 2007; Roalson & Robert in Syst. Biol. 65: 662–684. 2016; Serrano-Serrano & al. in Proc. Roy. Soc. London, Ser. B, Biol. Sci. 284: 20162816. 2017). These results indicate that a taxonomic revision is needed to redefine the generic boundaries within the *Ligeriinae*. Merging the three genera into an expanded *Sinningia* genus would be the most pragmatic solution because of the lack of clear morphological synapomorphies that could be used to recognize generic status for each of the major clades identified in the phylogenetic analyses (Perret & al., l.c. 2003). This expanded *Sinningia* circumscription is coherent with the broad morphological diversity observed in the genus, with plants varying from diminutive herbs 1–2.5 cm tall to shrubs 1–2 m tall bearing flowers 4–6 mm to 4–6 cm long that display a vast array of colors and shapes following adaptations to pollination by various groups of bees, butterflies, moths, hummingbirds and bats (Chautems & al., l.c.; Perret & al., l.c. 2007).

Under this scenario of monogeneric recircumscription of *Ligeriinae*, the name *Paliavana* established in 1788 has priority over *Sinningia* published in 1825, whereas *Vanhouttea* described in 1845 is posterior to both these generic names. *Paliavana* was proposed without any indication of species (Vandelli, Fl. Lusit. Bras. Spec.: 40, t. 3, fig. 17. 1788). Domenico Vandelli based his description on watercolor drawings produced from original materials of plants sent from Brazil to Portugal by Joaquim Vellozo de Miranda. Moraes (in Feddes Repert. 130: 21, fig. 1C and 35, fig. 5D. 2019) reproduced the engraving published by Vandelli and replicated an original watercolor drawing by José Joaquim da Silva that is part of manuscripts

kept at the National Museum of Natural History and Science – Lisbon University, Portugal. Moraes (l.c.: 36) attributed these *Paliavana* illustrations to *P. sericiflora* Benth. based on Araujo & al. (in Revista Brasil. Bot. 28: 109–135. 2005). This species is endemic to the Cadeia do Espinhaço mountain range in Minas Gerais, where Joaquim Vellozo de Miranda very likely collected the above cited materials during his stay in Ouro Preto in the early 1780s (Moraes, l.c.: 25). The Cadeia do Espinhaço runs north and south of Ouro Preto and it is interesting to note that the two other *Gesneriaceae* taxa described by Vandelli in the same work (l.c.: 41, t. 3, fig. 18, 19) under the new genus name *Orobanchia* (nowadays *Nematanthus lanceolatus* (Poirot) Chautems and *N. strigillosus* (Mart.) H.E. Moore) are still found growing in the same area as *P. sericiflora*. The application of the name *P. sericiflora* Benth. was firmly established by Turner (in Ann. Bot. Fenn. 53: 291. 2016) through the lectotypification on the Kew specimen K000648278, a Sellow collection part of Herbarium Benthamianum, originally gathered in Minas Gerais in the Serra da Piedade, which is part of the Cadeia do Espinhaço. Moraes (l.c.) designated *P. sericiflora* as the type of the generic name based on this species being endemic to Minas Gerais and on the striking identity

between Silva's drawing and the plant Vandelli (l.c.: 40) described and illustrated.

Adopting the older name *Paliavana* for a monogeneric *Ligeriinae* would imply publishing 78 new combinations, whereas only 14 recombinations would be necessary if *Sinningia* is conserved. We believe that the conservation of the name *Sinningia* will serve stability and avoid disadvantageous nomenclatural changes (Art. 14.1 of the ICN; Turland & al. in Regnum Veg. 159. 2018). With many taxa commercially introduced in cultivation, *Sinningia* also deserves preservation (Chautems & al., l.c.; Hodgson in Pl. Rev. 3(4): 40–45. 2021). We therefore propose that *Sinningia* be conserved against *Paliavana*.

Author information

AC, <https://orcid.org/0000-0002-0086-1623>

MP, <https://orcid.org/0000-0003-2021-114X>

Acknowledgements

This work was partly supported by the Swiss National Science Foundation, Grant no. 31003A_175655 to MP.

(2976) Proposal to reject the name *Bauhinia cordifolia* (Fabaceae: Cercidoideae)

Subir Bandyopadhyay¹  & Anand Kumar² 

1 23F, Fern Road, Kolkata –700 019, West Bengal, India

2 Central National Herbarium, Botanical Survey of India, P.O. Botanic Garden, Howrah – 711 103, West Bengal, India

Address for correspondence: Anand Kumar; anand_kum234@rediffmail.com

DOI <https://doi.org/10.1002/tax.13010>

First published as part of this issue. See online for details.

(2976) *Bauhinia cordifolia* Roxb., Fl. Ind., ed. 1832, 2: 332. 1832 [Angiosp.: *Legum.*], nom. utique rej. prop.
Typus: non designatus.

Roxburgh (Fl. Ind., ed. 1832, 2: 332. 1832) described *Bauhinia cordifolia* with a short morphological description “Smooth in every part. Leaves cordate, from three to five-nerved. Corymbs terminal. Flowers triandrous, long-pedicelled. Stigma peltate” and stated it to be a native of the Moluccas. In fact *B. cordifolia* was first published by Roxburgh (Hort. Bengal.: [90]. 1814) but as a nomen nudum. Here too it was said to be native of the Moluccas. Since the valid publication of the name, it has rarely been referred to in the literature. Miquel (Fl. Ned. Ind. 1: 66. 1855) established a new combination: *Phanera cordifolia* (Roxb.) Miq., provided almost the same morphological description given in the protologue of *B. cordifolia* by referring to Roxburgh (l.c.) and stating “Non vidi. Molukken”.

De Wit (in Reinwardtia 3: 458. 1956) cited “*Bauhinia cordifolia* Roxb., Fl. ind., ed. Carey, 2: 282. 1832” [the given page number should have been 332] as a synonym of *Phanera lingua* (DC.) Miq. (l.c.: 67), based on *Bauhinia lingua* DC. (Prodr. 2: 516. 1825). De

Wit (l.c.: 460) stated “No type is known to exist of Roxburgh's *Bauhinia cordifolia*. The name is best placed here”, i.e., as a synonym of *P. lingua*. De Wit (l.c.: 502) noted that Prain (in J. Asiatic Soc. Bengal, Pt. 2, Nat. Hist. 66(2): 191, 497–498. 1897), “when discussing *Bauhinia wrayi*, noted that a Bornean species (later described and named as *B. cardiophylla* by Merrill) was extremely closely allied. He believed it might represent *B. cordifolia* Roxb. This cannot be proved or disproved, as Roxburgh's description is too scant to allow identification. As Roxburgh stated that his *B. cordifolia* was native of the Moluccas, I referred it to *B. lingua* DC., a common and wide-spread Moluccan species which agrees also entirely with Roxburgh's descriptive data.” However, since the taxonomic treatment of De Wit (l.c.) no one considered *B. cordifolia* as a synonym of either *B. lingua* or *P. lingua*.

Larsen & Larsen (in Van Steenis, Fl. Males. Ser. 1, Spermat. 12: 534. 1996) included *Bauhinia cordifolia* Roxb. under their “Doubtful Species”. Their account is as follows: “*Bauhinia cordifolia* Roxb., Fl. Ind., ed. Carey, 2: (1824) 332. Type unknown. This species described from the Moluccas and by Baker referred to as *Bauhinia emarginata* Jack. belongs undoubtedly to *B. finlaysonian* regarding