

be nomenclaturally disruptive. Accordingly, to support the continued and well-established use of the name *M. triloba*, we propose to conserve its basionym with a conserved type under Art. 14.9. Therefore, we here propose the well-preserved specimen at LINN (Herb. Linnaeus No. 839.24) as the conserved type of the name *Cheiranthus trilobus*. This specimen shows all diagnostic characters of *C. trilobus* (e.g., annual plant, with sessile stellate hairs, with numerous [five or more] branched radials; leaves pinnatifid, sinuate, dentate, or entire; flowers with lateral sepals strongly saccate at the base; petals 10–20 mm; fruits straight, with stigma 2–3 mm, style 2–6 mm), and clearly represents the current application of the combinations based on this name (e.g., Ball in Tutin & al., Fl. Europ. 1: 277. 1964; López González, l.c.; Pujadas Salvá & Clemente Muñoz in Valdés & al., Fl. Andalucía Occid. 1: 387. 1987; Vizoso in Blanca & al., Fl. Vasc. Andalucía Orient. 3: 87. 2009; Ouyahya in Fennane & al., Fl. Pratique Maroc 1: 431. 1999; Fernández Prieto & al. in Doc. Jard. Bot. Atlántico 11: 282. 2014; Al-Shehbaz & al., l.c.).

If this proposal is accepted, the name *Cheiranthus lacerus* L. (Sp. Pl.: 662. 1753) [= *Malcolmia lacera* (L.) DC.] would become a heterotypic synonym of *C. trilobus*, which, despite the observation of López González (l.c.) that Linnaeus's species was probably identifiable with *Raphanus* L., was epitypified by Ball (in Taxon 51: 532. 2002) on a specimen at BM (barcode BM000576294) (image available at <https://data.nhm.ac.uk/object/6e541ad1-d32a-4556-8ff1-accbf023ba2b/1680048000000>) that can be identified with the traditional concept and current use of *Marcus-kochia triloba*

(see Al-Shehbaz & al., l.c.: 58). The names *C. trilobus* and *C. lacerus* have equal priority. However, Warwick & al. (in Ann. Missouri Bot. Gard. 94: 66. 2007) included the name *Malcolmia lacera* (L.) DC. as a heterotypic synonym of *M. triloba* (L.) Spreng., thereby establishing the priority of *C. trilobus* over *C. lacerus* under ICN Art. 11.5.

Rejection of the present proposal would have the very undesirable consequences of the name *Marcus-kochia triloba* having to replace what is currently known as *Marcus-kochia ramosissima*, and a new combination, "*Marcus-kochia lacera*", would be required to name what is now known as *M. triloba*. The only other alternative would be a proposal to reject *Cheiranthus trilobus* under Art. 56, but conserving the name with a type that reflects its current usage is to be preferred, as this will avoid any nomenclatural change (e.g., the new combination "*Marcus-kochia lacera*") and the unnecessary confusions that would result from this rejection and remove any uncertainty surrounding the application of this name.

#### Author information

PPFG, <http://orcid.org/0000-0001-7595-9302>

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## (2974) Proposal to conserve the name *Frankenia ericifolia* C. Sm. ex DC. against *F. ericifolia* Salisb. (Frankeniaceae)

Manuel B. Crespo,  M<sup>a</sup> Ángeles Alonso  & Mario Martínez-Azorín 

Departamento de Ciencias Ambientales y Recursos Naturales (dCARN), Universidad de Alicante, Alicante, P.O. Box 99, 03080, Spain

Address for correspondence: Manuel B. Crespo, [crespo@ua.es](mailto:crespo@ua.es)

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- (2974) *Frankenia ericifolia* C. Sm. ex DC., Prodr. 1: 350. Jan (med.) 1824 [Angiosp.: *Franken.*], nom. cons. prop.  
**Lectotypus (hic designatus):** [Spain. Canary Islands], "*Frankenia* vulg. in Teneriffa et aliis ins. – in rupibus maritimis, 1816, *Smith*" (G-DC barcode G00211215 [fragm. on lower part of sheet]).  
 (H) *Frankenia ericifolia* Salisb., Prodr. Stirp. Chap. Allerton: 214. Nov–Dec 1796, nom. illeg. (*F. laevis* L.), nom. rej. prop.  
 Lectotypus (vide Whalen in Regnum Veg. 127: 47. 1993): *Löffling*, Herb. Linnaeus No. 457.1 (LINN).

The name *Frankenia ericifolia* C. Sm. ex DC. is currently applied to caespitose perennial plants, with leaves revolute to

subflattened, minutely whitish-papillate beneath and pilose to glabrescent above, long petiolate; flowers often 1–3, in terminal groups, with calyx 3–4 mm long, strongly twisted after anthesis, papillate on grooves, and petals 4–5 mm long, whitish to pinkish. In the protologue, Candolle (Prodr. 1: 350. 1824) ascribed the name to the Norwegian collector Christen [or Christian] Smith [or Smidt] (1785–1816); the species was said to occur "in maritimis insularum Canariensium", and brief comments on its affinities to other congeners, such as *F. corymbosa* Desf. and *F. intermedia* DC., were also included. No specimen was cited in the protologue, and a later lectotypification is not known to the present authors. Among the material identified as *F. ericifolia* in Candolle's herbarium, four specimens (i.e., G00211196, G00211197, G00211215, G00211216) mounted on two sheets are found that were collected in the Canary Islands

prior to 1824 by different collectors at different times. They all can therefore be considered as original material of the name and hence eligible as type. In particular, the specimen G00211215 (see <https://www.ville-ge.ch/musinfo/bd/cjb/chg/adetail.php?id=198967>; all online resources accessed 9 May 2023) bears two labels: (i) “*Frankenia* | vulg. in Teneriffa | et aliis ins. – in rupibus maritimis”, probably handwritten by Smith, and (ii) “Canaries | M. Chr. Smith | 1816”, in Candolle’s handwriting. Since the fragment in that specimen matches the description in the protologue and was collected by Ch. Smith in sea-cliffs of Tenerife, it is designated here as lectotype of *F. ericifolia* C. Sm. ex DC.

Some morphological variation exists in *Frankenia ericifolia* that was analysed by Webb & Berthelot (Hist. Nat. Iles Canaries 3(2,1): 132. 1837), who described two varieties based on habit, leaf morphology and indumentum distribution: (i) var. *microphylla* widespread in the whole Canary archipelago, and (ii) var. *latifolia* occurring in Tenerife and La Palma (both varieties in Webb & Berthelot, l.c.: 132, t. 17 & 15. 1837). These names are sometimes regarded as applying to distinct subspecies (see Brochmann & al. in Nordic J. Bot. 15: 603–623. 1995; Beierkuhnlein & al. in Diversity 13: e480. 2021).

Treated in a broad sense, Candolle’s *Frankenia ericifolia* is said to be widespread in the Canary Islands (Hansen & Sunding in Sommerfeltia 17: 130–131. 1993; Beierkuhnlein & al., l.c.) and also in the Cape Verde archipelago (Brochmann & al., l.c. 1995). It is found on maritime cliffs and rocky habitats close to the sea shore, where it is part of halophytic vegetation included in some European conservation laws (see below). However, recent taxonomic work on the Cape Verdean flora by Rivas-Martínez & al. (in Int. J. Geobot. Res. 7: 1–103. 2017) suggests that the name *F. ericifolia* should be narrowed and applied exclusively to the Canarian populations, whereas the Cape Verdean plants would belong to a distinct vicarious species to which the name *F. pseudoericifolia* Rivas Mart. & al. should be applied. References to the presence of *F. ericifolia* s.l. in northwestern Africa (Sidi Ifni and Morocco) are doubtful, and in fact the species is not listed in recent Moroccan floras (Ouyahya in Fennane & al., Fl. Prat. Maroc 1: 331–334. 1999). This restrictive treatment of both names is admitted in POWO (<https://powo.science.kew.org/results?q=Frankenia>) and is accepted here.

In any case, *Frankenia ericifolia* C. Sm. ex DC. as currently applied is illegitimate and should not be used following the ICN (Turland & al. in Regnum Veg. 159. 2018). This is because the compound name “*F. Ericaefolia*”, which is to be corrected to *F. ericifolia* according to Art. 60.10(b) Ex. 36–37, had first been coined by Salisbury (Prodr. Stirp. Chap. Allerton: 214. 1796) for a different plant. This latter name, however, was nomenclaturally superfluous when published since it was solely validated by including *F. laevis* L. (Sp. Pl.: 331. 1753) in its synonymy (Art. 6.12(a)), which makes it a superfluous replacement name and therefore illegitimate (Art. 52.1 & 52.2(e)). A lectotype (LINN No. 457.1) was designated by Whalen (in Regnum Veg. 127: 47. 1993) for *F. laevis* L., which is automatically the type of Salisbury’s species name (Art. 7.5). In consequence, the name in use *F. ericifolia* C. Sm. ex DC. is a later homonym of *F. ericifolia* Salisb., and hence also illegitimate and unavailable for use even although the latter (the earlier homonym) is illegitimate itself (Art. 53.1 Note 2). In this scenario, unless the rules are suspended in favour of the proposed conserved name, a new replacement name (Art. 6.11) should be proposed for the well-established Canarian endemic, *F. ericifolia* C. Sm. ex DC., due

to the existence of an almost forgotten earlier homonym, which has never been used in the last two centuries.

The name *Frankenia ericifolia* C. Sm. ex DC. is currently in use and accepted in Macaronesian floras and checklists (e.g., Hansen & Sunding, l.c.; Brochmann & al., l.c. 1995; Brochmann & al. in Sommerfeltia 24: 228–237. 1997; Bramwell & Bramwell, Fl. Silvest. Islas Canarias, ed. 4. 2001; Acebes Ginovés & al. in Izquierdo & al., Lista Espec. Silv. Canarias: 96–143. 2004; Beierkuhnlein & al., l.c.), and it is also broadly accepted on influential websites, such as the African Plant Database (<https://africanplantdatabase.ch/en/nomen/143392>), Euro+Med PlantBase (<http://ww2.bgbm.org/EuroPlusMed/PTaxonDetail.asp?NameCache=Frankenia%20ericifolia&PTReffk=7500000>), Global Biodiversity Information Facility-GBIF (<https://www.gbif.org/es/species/8596463>), Plants of the World Online-POWO (<https://powo.science.kew.org/results?q=Frankenia>), Tela Botanica-France (<https://www.tela-botanica.org/bdtfx-nn-85170-synthese>), TROPICOS (<https://tropicos.org/name/100339488>), or World Flora Online-WFO (<https://wfoflorolist.org/plant-list/taxon/wfo-0000692006-2022-12?page=1>). In parallel, in most of those same websites, the name *F. ericifolia* Salisb. is included as a “nomen illegitimum” in the synonymy of *F. laevis* L.

A Google Scholar string search (10 May 2023) for “*Frankenia ericifolia* Salisb.” returned only 10 results, most of them pointing out to the illegitimacy of the name as a synonym of *Frankenia laevis* L. Far more numerous results (over 1300) were obtained from a parallel search for the strings “*Frankenia ericifolia* C.Sm. ex DC.” or “*Frankenia ericifolia* Ch.Sm. ex DC.”. A high percentage of those latter entries correspond to sites with general information on the Canarian flora, which testifies to the widespread usage of this name also among amateur botanists and conservationists.

Furthermore, *Frankenia ericifolia* C. Sm. ex DC. is one of the key species of the natural habitat type “1250 Vegetated sea cliffs with endemic flora of the Macaronesian coasts”, which is included in the *Interpretation Manual of the European Union Habitats: EUR 25* (2003) and is the basis for conservation of plant communities and species occurring in such fragile coastal ecosystems, in the framework of the “Habitats Directive” (Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A31992L0043>). In particular, that species characterises locally the so-called “Aerohaline communities of the sea-cliffs of the Canaries and Madeira (*Frankenio-Astydamietalia latifoliae*)”, and its name forms part of the formal names of several syntaxa in the widely used phytosociological classification of the Macaronesian vegetation by Rivas-Martínez & al. (in Itin. Geobot. 14: 1–341. 2001). This includes the alliance Frankenio (*ericifoliae*)-Astydamiion *latifoliae* Santos 1976 and the association Frankenio *ericifoliae*-Astydamiion *latifoliae* Lohmeyer & Trautmann ex Santos 1976. All these vegetation-type names are currently broadly used in phytosociological, ecological and conservation studies in many biological groups, and if the name *F. ericifolia* were to be replaced due to illegitimacy they all would need to be changed, according to Art. 44 of the “International Code of Phytosociological Nomenclature” (cf. Theurillat & al. in Appl. Veg. Sci. 24: e12491. 2021).

Therefore, for these reasons, we formally propose to conserve *Frankenia ericifolia* C. Sm. ex DC. under Art. 14 of the ICN against the earlier illegitimate and almost forgotten *F. ericifolia* Salisb. to avoid disadvantageous nomenclatural changes and best serve stability of nomenclature. Acceptance of the present proposal would preserve the use of the well-established *F. ericifolia* C. Sm.

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>

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## (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](mailto:alain.chautems@ville-ge.ch)

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(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