


(2798) Proposal to conserve the name *Cistus laevis* (*Fumana laevis*) against *C. pilosus* (*Cistaceae*)

P. Pablo Ferrer-Gallego 

Servicio de Vida Silvestre, Centro para la Investigación y la Experimentación Forestal (CIEF), Generalitat Valenciana, Avda. Comarques del País Valencià 114, 46930 Quart de Poblet, Valencia, Spain

Address for correspondence: P. Pablo Ferrer-Gallego, flora.cief@gva.es

DOI <https://doi.org/10.1002/tax.12435>

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

(2798) *Cistus laevis* Cav., Icon. 2: 35. Apr–Nov 1793 [Angiosp.: *Cist.*], nom. cons. prop.

Typus: [Spain, Valencia], “in montibus Engueræ et in Collado de Bocayrente”, 30 Jul 1791, *Cavanilles* (MA barcode MA 475536 [2 right-hand and 2 left-hand fragments, excl. central fragment]).

(=) *Cistus pilosus* L., Sp. Pl.: 528. 1 Mai 1753, nom. rej. prop. **Lectotypus (hic designatus):** Herb. Burser XXIV: 66 (UPS No. V-175838).

The family *Cistaceae* comprises 9 genera: *Cistus* L., *Crocanthemum* Spach, *Fumana* (Dunal) Spach, *Halimium* (Dunal) Spach, *Helianthemum* Mill., *Hudsonia* L., *Lechea* Kalm, *Pakaraimaea* Maguire & P.S. Ashton, and *Tuberaria* (Dunal) Spach, and about 180 species distributed in the temperate, subtropical, and tropical regions of the Northern Hemisphere. The genus *Fumana* is one of the most diverse and least-studied genera of the *Cistaceae* family, comprising 21 recognized species with high morphological diversity (Arrington & Kubitzki in Kubitzki & Bayer, Fam. Gen. Vasc. Pl. 5: 62–70. 2003; APG-IV in Bot. J. Linn. Soc. 181: 1–20. 2016; Heckenhauer & al. in Bot. J. Linn. Soc. 185: 1–26. 2017).

Linnaeus (Sp. Pl.: 528. 1753) published the name *Cistus pilosus* through a short diagnosis (“CISTUS suffruticosus stipulatus, foliis linearibus subtus bisulcatis incanis, calycibus laevibus”) cited from Sauvages (Meth. Fol.: 147. 1751), and listed two synonyms: “Chamaecistus foliis thymi incanis” from Bauhin (Pinax: 466. 1623) and “Chamaecistus 4” from Clusius (Rar. Pl. Hist. 1: 74. 1601). In the protologue, two varieties were also recognised: “β Cistus stipulis quaternis, foliis lineari-ovalibus incanis, calycibus tomentosus” cited from Sauvages (l.c.: 148) and followed by the synonym “Helianthemum flore albo, folio angusto hirsuto” cited from Bauhin & Cherler (Hist. Pl. 2: 17. 1651), and “γ Cistus foliis villosis lanceolatis, axillis foliosis, stipulis subulatis” quoted from Sauvages (l.c.: 148), followed by the synonym “Helianthemum s.[sive] Cistus humilis, folio sampsi, capitulis valde hirsutis” cited from Bauhin & Cherler (l.c. 2: 20). The protologue included the geographical provenance as “Habitat Monspeii.” Linnaeus also provided the comment “Hae tres α. β. γ. vel varietates vel valde affines: certiora determinant autoptae.”

Concerning the identity of *Cistus pilosus*, this species has been misunderstood (see, e.g., López González in Anales Jard. Bot. Madrid 50: 40, 45. 1990; Jarvis, Order out of Chaos: 421. 2007). Sampaio (in Bol. Soc. Brot., sér. 2, 7: 132. 1931) stated that the correct name for Linnaeus’s plant is *Helianthemum violaceum* (Cav.) Pers. (see also Jarvis, l.c.), and López González (l.c. 1990: 40, 45) argued that *Helianthemum pilosum* Mill. is not based on *C. pilosus* L., making *H. pilosum* (L.) Pers. a later homonym of Miller’s name, an argument contrary to Proctor & Heywood (in Tutin & al., Fl. Eur. 2: 288. 1968)

and Greuter & al. (in Med-Checklist 1. 1984) since they consider that new names published by Miller are new combinations based on Linnaeus’s names in all those cases where the epithets coincide. On the other hand, according to Jarvis (l.c.), at least some of the original material of *C. pilosus* is identifiable as belonging to the genus *Fumana*.

Jaffri (in Jaffri & El-Gadi, Fl. Libya 48: 22. 1977) indicated the sheet No. 689.55 (LINN; image: <http://linnean-online.org/6475/>) as the type of *Cistus pilosus*. However, as pointed out by Jarvis (l.c.), this collection lacks the relevant *Species plantarum* number (in this case “25”); thus, this specimen was a post-1753 addition to the herbarium and therefore not original material. So Linnaeus’s *Cistus pilosus* has not been typified (see López González, l.c. 1990; Jarvis, l.c.).

A reference to Clusius (l.c.) cited in the protologue provided an illustration, “Chamaecistus IIII”, that can be considered original material used by Linnaeus to describe *Cistus pilosus*. This drawing illustrates a complete plant, with opposite leaves, flowers and fruits (image available at http://www.plantillustrations.org/illustration.php?id_illustration=237597). This illustration can be identified as *Fumana laevis* (Cav.) Pau (in Bol. Soc. Esp. Hist. Nat. 1: 209. 1901), based on *Cistus laevis* Cav. (Icon. 2: 35. 1793). In addition, as indicated by Jarvis (l.c.), there is a herbarium sheet preserved at UPS-BURSER that contains additional original material of this name: Herb. Burser XXIV: 66. This sheet bears two plants of the same species, both with leaves and flowers. The sheet has a label annotated “Chamaecistus foliis Thymi incanis / Baun. / In Gallia. / 66”. It can also be identified as *F. laevis*. I have been unable to locate any further original material in any Linnaean or Linnaean-linked herbaria. Therefore, the only elements eligible for lectotypification, the Clusius illustration and the specimen at UPS, are identifiable as *F. laevis*.

I designate above the specimen XXIV: 66 (UPS No. V-175838) as the lectotype of *Cistus pilosus*. This specimen shows important diagnostic characters, as, e.g., leaves unequally spaced on the stem, abruptly reduced above to form small bracts in the inflorescence, opposite, linear to linear-lanceolate, mucronate, with strongly revolute margins, stipulate; inflorescence 3- to 9-flowered, pedicels much longer than the subtending bracts. As already noted, this specimen matches the traditional concept of a taxon (see, e.g., Cavanilles, l.c.: 35, t. 145, fig. 1; Willkomm, Prodr. Fl. Hispan. 3: 744. 1880; Grosser in Engler, Pflanzenr. 14: 130. 1903) now recognized under the name *Fumana laevis* (see Molero & Rovira in Candollea 42: 524. 1987; Bolòs & Vigo, Fl. Països Catalans 2: 217. 1989; Güemes in Castroviejo & al., Fl. Iber. 3: 434. 1993; López González, Árbol. Arbust. Peníns. Ibér. 2: 455–456. 2001; Mateo & al., Fl. Valentina 2: 243. 2013; Mateo & Crespo, Claves Ilustr. Fl. Valenciana: 126. 2014).

The name *Fumana laevis* applies to a species widely distributed in the Mediterranean, growing on warm, low-altitude coasts (0–800 m),

on relatively deep soils (see Grosser, l.c.; Molero & Rovira, l.c.; Güemes, l.c.; Tison & al., Fl. France Médit.: 974. 2014). A first attempt to lectotypify this name was by Molero & Rovira (l.c.: 528), who cited a herbarium sheet (MA 475536) with no further specifications. However, according to Güemes & Muñoz-Garmendia (in Taxon 53: 1060. 2004), the sheet MA 475536 bears heterogeneous material of more than one gathering, and therefore another lectotypification was required. These authors designated as lectotype all plant fragments of the sheet MA 475536 except the central one (image available at <http://161.111.171.57/herbarioV/visorVCat.php?img=MA-01-00475536>).

For the purpose of nomenclatural stability, I therefore propose conservation of *Cistus laevis* Cav. against *C. pilosus* L. under Art. 14.1 of the *ICN* (Turland & al. in *Regnum Veg.* 159. 2018). Rejection of this proposal would have an undesirable consequence because the name *C. laevis* would be included as a heterotypic synonym of the unknown and ignored Linnaean name *C. pilosus*, and therefore the well-known name *Fumana laevis*, used in a large number of works, would need to be replaced by a currently non-existent new combination, “*Fumana pilosa*”. An alternative solution, outright rejection of

Cistus pilosus L. under Art. 56, has not been pursued, so that if *C. laevis* is conserved over it, the Linnaean basionym would still be available should it ever require segregation from *F. laevis*. Although based on current knowledge the two taxa are conspecific, the genus *Fumana* is still little known, and an in-depth taxonomic study is needed for the entire western Mediterranean area. The type of *F. laevis*, from France, is from a locality distant (for this genus) of the locus of *C. pilosus* (Valencia Province, Spain), both sites also present different environmental and ecological conditions.

Author information

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

Acknowledgements

Thanks to Mats Hjertson (UPS, Museum of Evolution, Botany Section, Uppsala University, Sweden) for the images of the herbarium sheets. Thanks to Dr. John Wiersema and Dr. John McNeill for their advice, assistance, and valuable comments that improved this proposal.

(2799–2800) Proposals to conserve the name *Urtica involucrata* Roxb. (*Macaranga involucrata*) (*Euphorbiaceae*) against *U. involucrata* Sims (*Urticaceae*) and to reject the name *Bruea bengalensis* (*Euphorbiaceae*)

I.M. Turner

1 Singapore Botanical Liaison Officer, Royal Botanic Gardens, Kew, Richmond TW9 3AB, U.K.

2 Singapore Botanic Gardens, National Parks Board, 1 Cluny Road, Singapore 259569

Address for correspondence: I.M. Turner; i.turner@kew.org

DOI <https://doi.org/10.1002/tax.12436>

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

- (2799) *Urtica involucrata* Roxb., Fl. Ind., ed. 1832, 3: 592. Oct–Dec 1832 [Angiosp.: *Euphorb.*], nom. cons. prop.
 Typus: *Roxburgh* (BM barcode BM000645881).
- (H) *Urtica involucrata* Sims in Bot. Mag.: ad t. 2481. 1 Mai 1824 [Angiosp.: *Urtic.*], nom. rej. prop.
 Lectotypus (vide Kellogg in Howard, Fl. Lesser Antilles 4: 83. 1988): [icon in] Bot. Mag.: t. 2481. 1 Mai 1824. Epitypus (vide Monro in Bull. Nat. Hist. Mus. London, Bot. 31: 14. 2001): St. Vincent, *Anderson* (K barcode K001410050).
- (2800) *Bruea bengalensis* Gaud., Voy. Uranie, Bot.: 511. 6 Mar 1830 [Angiosp.: *Euphorb.*], nom. utique rej. prop.
 Typus: India, Bengal, *Leschenault de la Tour* (?P).

There is a species of *Macaranga* native to Sulawesi, the Moluccas, New Guinea, Australia (where it is known as brown macaranga), Solomon Islands and Vanuatu that has long been referred to as “*Macaranga involucrata* (Roxb.) Baill.” (Mueller, Syst. Census Austral. Pl.: 21. 1882; Pax in Engler, Pflanzenr. IV. 147 VII (Heft 63): 374. 1914; Perry in J. Arnold Arbor. 34: 222. 1953; Whitmore in

Kew Bull., Addit. Ser. 8: 148. 1980; Govaerts & al., World Checkl. Euphorbiaceae 3: 1091. 2000; Whitmore, Gen. Macaranga: 16. 2008). The assumed basionym for this combination was *Urtica involucrata* Roxb. (Fl. Ind., ed. 1832, 3: 592. 1832). This name was first published by Roxburgh in *Hortus Bengalensis*, his listing of the plants growing in the Botanic Garden of the East India Company in Calcutta (Roxburgh, Hort. Bengal.: 67. 1814). In the absence of a description or reference to one in the *Hortus Bengalensis*, *Urtica involucrata* Roxb. was there a nomen nudum. This was also true for the entry in Wallich’s *Numerical list* (Wallich, Numer. List: no. 4621. 1831). Roxburgh’s name was not validated until the posthumous publication of his *Flora Indica* (Roxburgh, l.c. 1832). By that time, however, *Urtica involucrata* had been published by Sims (in Bot. Mag.: ad t. 2481. 1824) for a Neotropical species, so Roxburgh’s name was an illegitimate later homonym when published, though this fact has been widely overlooked. *Urtica involucrata* Sims is the basionym of a name in current use, *Pilea involucrata* (Sims) C.H. Wright & Dewar (Johnson’s Gard. Dict.: 1056. 1894). Roxburgh (l.c. 1814) reported that his plant was a native of the Moluccas and that it arrived in Calcutta by accident – presumably germinating from seeds or soil brought to India from the