

(2973) Proposal to conserve the name *Cheiranthus trilobus* (*Malcolmia triloba*, *Marcus-kochia triloba*) (*Cruciferae*) with a conserved type

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(2973) *Cheiranthus trilobus* L., Sp. Pl.: 662. 1 Mai 1753 [Angiosp.: *Cruc.*], nom. cons. prop.
Typus: Herb. Linnaeus No. 839.24 (LINN), typ. cons. prop.

The name *Marcus-kochia triloba* (L.) Al-Shehbaz (in Harvard Pap. Bot. 19: 58. 2014) (*Cruciferae*), based on *Cheiranthus trilobus* L. (Sp. Pl.: 662. 1753) and formerly known as *Malcolmia triloba* (L.) Spreng. (Syst. Veg. 2: 899. 1825), is currently applied to an annual or perennial plant distributed in Spain, Portugal, and Morocco (Nogueira in Castroviejo & al., Fl. Iberica 4: 80–84. 1993; Montserrat in Valdés & al., Cat. Pl. Vasc. N. Maroc 1: 252. 2002; Carapeto & al., mapa de distribuição in Flora-On: <http://www.flora-on.pt/#wMalcolmia+triloba> [accessed 19 Mar 2023]), and introduced in Corse (France) (Jeanmonod & al. in Candollea 67: 308. 2012). The species is extremely variable in its division of leaves, density of indumentum, flower size, and style and stigma length.

Linnaeus (l.c.) published *Cheiranthus trilobus* providing a short diagnosis “CHEIRANTHUS foliis dentatis obtusis, calycibus laevibus, siliquis nodosis mucronatis”, followed by the synonyms “*Leucojum martimum* [maritimum] minimum hispanicum vernum, foliis eruae” cited from Tournefort (Inst. Rei Herb., ed. 3: 221. 1719), and “*Leucojum maritimum minimum*” cited from Bauhin (Pinax: 201. 1623) as “*Bauh. pin. Burs. XI. 28*”. The protologue also includes “*Habitat in Hispania & prope insulas Stoechadum*”, and a description: “*Caulis ramosi, patuli, spithamei, incani. Folia lanceolata, obtusa, unico vel duobus utrinque dentibus profundioribus. Calyces nonpilosi. Corolla purpurea, majuscula. Siliquae lineares, teretiusculae, suturis carinatae, lateribus torulis nodosae, apice longo subulato acuminatae.*”

Among the original material of *Cheiranthus trilobus*, there are three relevant specimens: Herb. Linnaeus No. 839.24 (LINN), Herb. Linnaeus No. 273.13 (S-LINN), and Herb. Burser XI: 28 (UPS-BURSER). According to Jarvis (Order out of Chaos: 409. 2007), the “lectotype” was designated by López González (in Anales Jard. Bot Madrid 42: 319–320. 1986) as the specimen Herb. Linnaeus No. 839.24 (LINN), as: “*Lectotypus*: LINN 839.24; *syntypus*: Burser XI.28 (UPS), S (IDC ed. n° 273.13)”, and this viewpoint was subsequently adopted by modern monographers (see, e.g., Al-Shehbaz & al. in Harvard Pap. Bot. 19: 53–71. 2014). The sheet 839.24 (LINN) bears a complete plant, with leaves, flowers, and fruits, and is annotated by Linnaeus “*trilobus*” and “7” at the base of the sheet (image available at <https://linnean-online.org/7665/>).

On the other hand, the sheet at S-LINN (IDC 273.13 and number S09-25069) bears some plant fragments, with leaves, flowers and fruits, and is annotated “*Cheiranthus*” at the top of the sheet, and “*Malcolmia triloba* Spreng.” and “*trilobus*” [handwritten by

Linnaeus] at the base of the sheet. On the back, the sheet is annotated “*Cheiranthus foliis lanceolatis subdentatis retusis obtusis, calycibus laevibus, siliquis nodosis mucronatis apice subulatis*. Lin. Spec. plant. 662”, “Osbeck” [handwritten by Linnaeus], “*Malcolmia Broussonetii* De Cand.”, “*Malcolmia triloba* Spreng.”, and “*Hort. Ups. / 187. 3*”. (image available at <http://linnaeus.nrm.se/botany/fbo/c/cheir/cheitrl.html.en>). This specimen collected by Pehr Osbeck matches the current use and traditional concept of the name, showing diagnostic characters of *Cheiranthus trilobus* (see below).

However, in the protologue Linnaeus explicitly cited “*Burs. XI. 28*”. This reference is identifiable with an actual specimen, from Joachim Burser’s *Hortus Siccus* XI: 28, currently preserved at UPS-BURSER. Therefore, unfortunately, the “typification” of López González (l.c.), supported by Jarvis (l.c.) and Al-Shehbaz & al. (l.c.), was ineffective because Burser’s specimen, having been cited by Linnaeus, is a syntype (according to ICN Art. 9.6; Turland & al. in Regnum Veg. 159. 2018) and has precedence in lectotype designation over unmentioned specimens and cited illustrations (Art. 9.12). Being the sole syntype, it would therefore be the obligate choice for a lectotype.

The sheet preserved in the Burser Herbarium (UPS-BURSER XI: 28) bears three plants, with leaves, flowers, and fruits, and a handwritten label, annotated as “*Leucojum maritimum minimum / Bauh. / prope tuguriola (aux Cabanes) prope Insulas stoechadas. / 28*” (see Juel in Nova Acta Regiae Soc. Upsal., ser. 4, 5(7): 70. 1923). Unfortunately, a careful examination of these three plants has shown that they do not correspond to the current concept and usage of the name *Cheiranthus trilobus* and those combinations based on it. This specimen can be identified as belonging to *Marcus-kochia ramosissima* (Desf.) Al-Shehbaz (based on *Hesperis ramosissima* Desf., Fl. Atlant. 2: 91, t. 161. 1798) in having leaves oblong, entire or sinuate-dentate; pedicels 2–7 mm in fruit; sepals 2.5–4.5 mm, not saccate at base; petals 4–6(8) mm; siliqua 15–35 × ~1 mm, terete, torulose, pubescent, with stigmas 1–2 mm. My identification for this material agrees with Juel’s identification (l.c.: 71), who stated: “*Burs:s Exemplar hat aber kleinere Blüten als jene Art und gehört nach meiner Meinung zu M. parviflora DC.*” (However, Burser’s specimen has smaller flowers than that species and, in my opinion, belongs to *M. parviflora* DC.). Candolle’s name is currently treated as a heterotypic synonym of *Marcus-kochia ramosissima* (see Al-Shehbaz & al., l.c.: 58; POWO, 2023: <https://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:77148312-1> [accessed 22 Mar 2023]).

Consequently, it appears that none of the three plants on Herb. Burser sheet XI: 28 (UPS-BURSER) agree with the current usage of the name *Marcus-kochia triloba*, and a lectotypification of this name on the plants of the sheet in accordance with Art. 9.12 would

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 radios; 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.

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

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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): *Löföling*, *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 petiole; 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