

# Nomenclatural notes on some annual mallows (Malvaceae)

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**Abstract** – A nomenclatural study concerning the annual mallows (*Lavatera* sect. *Lavatera*) is presented here. The names *Lavatera africana*, *L. biennis*, *L. grandiflora*, *L. moschata* by Miergues, *L. punctata*, *L. punctata* var. *maroccana*, *L. rosea*, *L. trimestris* var. *brachypoda*, *L. trimestris* var. *trimestris* f. *colorata*, *Olbia deflexa*, and *Stegia lavatera* are investigated. *Lavatera grandiflora*, *L. rosea*, *L. moschata* by Miergues, *Olbia deflexa*, and *Stegia lavatera* are illegitimate names according to Arts. 52.1, 52.2 or 53.1 of the ICN. The other names are valid and legitimate and are lecto- or neotypified on specimens preserved in the herbaria BM, LE, MAF, MPU, P, and TO. Three species belonging to *Lavatera* sect. *Lavatera* are accepted: *L. trimestris* s.lat., *L. maroccana*, and *L. punctata* (= *Olbia deflexa*, nom. superfl. et illeg. = *L. biennis*). Three varieties are here recognized for *L. trimestris*: var. *trimestris* (≡ *Malva rosea*, nom. superfl. et illeg. *Lavatera grandiflora*, nom. superfl. et illeg. *Stegia lavatera*, nom. superfl. et illeg. = *L. africana* = *L. trimestris* var. *trimestris* f. *colorata*), var. *brachypoda*, and var. *moschata* (a new combination).

**Key words:** *Lavatera*, lectotypification, *Malva*, neotypification, new combination

## Introduction

Molecular studies on the *Malva* alliance (Ray 1995, Escobar et al. 2009) showed that the traditional separation of the genera *Malva* L. and *Lavatera* L., based mainly on the degree of fusion of the epicalyx bracts, is artificial and cannot be maintained, while the taxonomic significance of the fruit morphology was emphasized. The overall evolution appears to be reticulate and *Malva* is presumed to be monophyletic (Tate et al. 2005, Escobar et al. 2009). Pending a comprehensive taxonomic study of *Malveae* J.Presl, several authors accepted *Malva* in a broad sense, and merged *Lavatera* into it (e.g. Ray 1995, Molero and Montserrat 2005, 2006, Banfi et al. 2005, Iamónico 2010, Valdés 2011, Conti and Bartolucci 2012, Iamónico et al. 2015). However, some taxa included in the “Lavateroid clade” by Ray (1995) are still doubtfully placed and other authors (e.g. Bayer and Kubitzki 2003; Molero and Montserrat 2007) still accept the the genus *Lavatera* for them.

The annual mallows *Lavatera maroccana* (Batt. & Trab.) Maire, *L. punctata* All., and *L. trimestris* L. are traditionally placed in *Lavatera* sect. *Lavatera* (= *Stegia* DC.) and are rep-

resented by plants with solitary flowers, long petioles, epicalyxes with very broad and shallow lobes, and Lavateroid-type mericarps (see e.g. Ray 1995; Fernandes 1993). The morphological similarity among these taxa is not, however, supported by the molecular analyses, and these affinities might be homoplasious (Escobar et al. 2009). Before a new extensive study on the phylogenetic relationships among the annual mallows is made, a nomenclatural investigation of the names related to this group is presented here as part of the revision of the Malvaceae for the new edition of the Flora d'Italia, editor Prof. S. Pignatti (e.g. Iamónico 2010, 2014a, 2014b, 2016; Iamónico and Peruzzi 2014; Iamónico et al. 2015).

## Materials and methods

The paper is based on both examination of specimens preserved in the Herbaria BM, LINN, MPU, P, RO, and TO (abbreviations according to Thiers 2016) and analysis of relevant literature (protologues included). The articles cited through the text agree with the Melbourne Code (McNeill et al. 2012). The taxa are presented in alphabetical order.

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## Results

### *Lavatera africana* Mill.

Miller (1768: *Lavatera* no. 2) provided a short diagnosis (“*LAVATERA (Africana) foliis infimis cordato-angulatis, supernè sagittatis, pedunculis unifloris, caule herbaceo hirsuto*”), cited one synonym from Boerhaave (1727: 268, “*Lavatera africana, flore pulcherrimo*”), and stated “The second sort [*Lavatera africana*] grows naturally at the Cape of Good Hope... is annual”.

Miller’s name makes *Lavatera africana* Cav. (Cavanilles 1788: 282), which does not belong to the sect. *Lavatera*, a later homonym and an illegitimate name according to Art. 53.2. As a consequence, the combination *Malva africana* (Cav.) Banfi, Soldano, and Galasso by Banfi et al. (2005) was erroneous. The correct basionym was chosen by Molero and Monserrat (2005, 2006), and Iamónico (2010: 312) who proposed the combinations *M. subovata* (DC.) Molero & Monserrat subsp. *rupestris* (Pomel) Molero & Monserrat, and *M. subovata* subsp. *bicolor* (Rouy) Iamónico, respectively. A study on *L. sect. Axolopha* DC. (Iamónico 2016) revealed that Miller’s *Lavatera africana* includes plants whose features cannot be associated with perennial taxa belonging to this section; rather, it is related to *L. sect. Lavatera*. I found a sheet at BM (code BM000603431; Fig. 1) that bears a plant whose features of leaves and flowers match the diagnosis. This sheet bears three labels: the first one (on the top right of the sheet) represents an identification by G. Krebs (15 December 1985, as *L. trimestris*), the second label (on the bottom right, “*Lavatera africanna* Miller 1768 Gard. Dict. ed 8. no. 2 | Type

Specimen | Journ. Bot. 1913. 132”) might be Steran’s or Dandy’s script (J. Hunnax pers. comm.), the third label (on the top left, “Hort.”) looks as if it might be from J. Banks (J. Hunnax pers. comm.). Since there are doubts about the collector of this exsiccata, and the collection date is lacking, I prefer to avoid the BM000603431 for lectotypification purposes. Since there are no further specimens, which can be considered as part of the original material used to describe *Lavatera africana* Mill., I here designate BM000603431 as the neotype of *Lavatera africana* Mill.

### *Lavatera biennis* M.Bieb.

Bieberstein (1798: 116) described *Lavatera biennis* from the Caspian region through a short diagnosis and the habitat (“*Occurrit passim in pascuis, graminosis et ad agrorum versuras*”); the species was placed into the group named “*Caule herbaceo*”. Some years later, Bieberstein (1808: 143) again reported the original diagnosis, adding a description, the provenance (“*Habitat in Caucasi orientalis...*”), and providing a comparison with *L. thuringiaca* L. (“...*affini L. thuringiaca... petalorum forma; calycis quoque interioris foliola in longius acumen sunt producta. Arilli transversim sutilissime rugosi*”). There is one specimen at LE (Bieberstein’s collection, code 01009603) that bears a terminal part of one plant with some cauline leaves and flowers; the plant was collected in 1796 in “*Ex planitiebus Sihirvanicis*”, where Shirvan is a province of Azerbaijan (V. Shvanova, pers. comm.). The plant mounted on the sheet shows features that match Bieberstein’s diagnosis and the specimen LE-01009603 is here designated as the lectotype of the name *Lavatera biennis*.

### *Lavatera grandiflora* Moench

Moench (1794: 614) created the name *Lavatera grandiflora*, citing as synonym the validly published *L. trimestris* L. As a consequence, Moench’s name is a superfluous *nomen novum* for *L. trimestris*, and is therefore illegitimate according to Art. 52.2 of the ICN.

### *Lavatera moschata* Miergues and *Lavatera moschata* Moris

*Lavatera moschata* Miergues is a later homonym of *L. moschata* Moris, which was published 31 years earlier in the 2<sup>nd</sup> volume of *Stirpium Sardoarum Elenchus* (Moris 1827: 9). As a consequence Miergues’ name is illegitimate under Art. 53.1 of the ICN.

Miergues (1858: 593) observed an Algerian population (locality Arba) of a *Lavatera* species morphologically similar to *L. trimestris*, and recognized this population as a new species, named *L. moschata*. According to the protologue, this species would differ from *L. trimestris* in having a musky smell, higher branching, soft leaf blades, epicalyx with entire and glabrous margins, and nails of the petals not coloured. One specimen in P (code 04694665) bears a plant that is part of Miergues’ collection and it was collected in the locality “L’Arba...” in “May”; the morphology of the plant



Fig. 1. Neotype of the name *Lavatera africana* (BM-000603431!).

(two pieces) matches Miergues' diagnosis. Since the date of collection is lacking, I cannot be sure that this specimen is an ante-1858 addition to the collection, and, consequently, I prefer to avoid it as a possible lectotype (Arts. 9.2, and 9.3 of the ICN). However, since no other unquestionably original material was found, I here below designate the specimen as neotype of *Lavatera moschata* Miergues.

Examination of the original material and other specimens that are part of Moris' collection (herbarium TO) showed that *L. moschata* Moris cannot be identified with any of the species belonging to *L. sect. Lavatera*. On the basis of the morphology of these exsiccatae, *L. moschata* Moris should be included in *L. sect. Glandulosae* Fernandes, which is characterized by mixed indumentum (simple, stellate, and glandular hairs) and flowers arranged in groups of about 4–6 (Fernandes 1968a, 1968b, Escobar et al. 2009). A taxonomic and nomenclatural study on the whole *L. sect. Glandulosae* is in preparation (G. Bacchetta and collaborators).

### ***Lavatera punctata* All.**

This species was first described by Allioni (1789: 26) who provided a diagnosis, a detailed description, and the provenance “*In agro Nicaeensis frequens*”; no synonyms, illustrations, or specimens were listed. At TO (Allioni's collection), I found three specimens bearing plants whose features match the diagnosis and description of *L. punctata*; labels (one per specimen) also occur, and include in Allioni's script “*Lavatera punctata ex Nicaea*”. Although the locality matches the provenance cited in the protologue, the date of collection is lacking, and it is not possible to know if the plants were collected ante- or post-1789 (L. Guglielmo, pers. comm.). The typification of Allioni's names is not indeed a simple issue, since Allioni's original material is often affected by various types of complication, mainly with respect to 1) the scarcity of information reported on the specimens' labels and 2) the lack on the sheets of specific annotations which link the protologues to the specimens (see e.g., Dal Vesco et al. 1987–1988). As a consequence, we cannot be sure that these specimens are part of the original material (Art. 9.3), and their use as lectotypes should be avoided (see Art. 9.2). Another possible repository of original material for Allioni's name is the Bellardi collection (kept at TO). C. A. L. Bellardi was a student and close collaborator of C. Allioni, who often examined Bellardi's material for his researches (L. Guglielmo, pers. comm.). One specimen at TO bears Bellardi's annotation “*Lavatera trimestris* Linn. *punctata* All.”, so Bellardi originally identified the plant as *L. trimestris*, but later revised the exsiccatum as *L. punctata*. Furthermore, there is a second label: “*ex Horto x. D. Johannis. Inveni abunde in vineis, et campis a Monaco ad Mentonum et non longe a Nicaea*” (the San Giovanni Botanical Garden was part of the San Giovanni hospital area, and it is part of the Faculty of Medicine). It is interesting to note that the code of *L. punctata* in Allioni's *Auctarium* (“1424”) corresponds to that given to *L. trimestris* in *Flora Pedemontana* (Allioni 1785: 42) where the author indicated “*Loc. olivētis Villafrancae Nicaeensis reper-*

*itur*”, also associating to the species the illustration nos. 67 (volume 14), and 87 (volume 17) of the *Iconographia Taurinensis* (Allioni 1765, 1771 – see Forneris 2008). Unfortunately, the date of collection is lacking in Bellardi's specimens, and I am not able to establish if the exsiccata is an ante- or post-1789 addition to the collection, so I prefer to avoid its use as lectotype. Lacking other specimens that are unquestionably original material, I am forced to choose one of them as a neotype (art. 9.7). Below I designate the specimen at TO (no. 1) as the neotype of the name *Lavatera punctata* since it bears a more complete plant, including lower, middle and cauline leaves, well preserved flowers, and fruits.

### ***Lavatera punctata* var. *maroccana* Batt. & Trab.**

Battandier and Trabut (1888: 14) published *Lavatera punctata* var. *maroccana* through a detailed description; the provenance (“ravins de Taourirt”), and the collector (“M. Ducellier”) were also provided. There is one specimen at MPU (code 001641) that bears a piece of a branch (terminal part of the inflorescence) with one opened flower and a mature schizocarp, whose features match the diagnosis. The plant was collected by L. Ducellier in “Maroc oriental: Taourirt, ravins” on May 7, 1916. The specimen is undoubtedly original material, and it is here designated as the lectotype of the name *L. punctata* var. *maroccana*. The taxon is currently accepted at species level as *L. maroccana* (Batt. and Trab.) Verloove and Lambinon [see e.g., Fernandes 1968b: 234 sub *L. maroccana* (Batt. and Trab.) Maire, and Verloove and Lambinon 2011: 40].

### ***Lavatera rosea* Medik.**

Medikus (1787: 40) proposed the name *Lavatera rosea* citing a synonym from Jacquin (1770), “Jacq. H. V. T. I, Tab. 72”. The latter author published an illustration (image available at <http://www.biodiversitylibrary.org/item/10249#page/3/mode/1up>) labelled as “*Lavatera trimestris*” (see Jacquin 1770: 29). As a consequence, Medikus' (1787) new name is superfluous and illegitimate since the Linnaean name should have been adopted (Arts. 52.1 and 52.2).

### ***Lavatera trimestris* var. *brachypoda* Pérez Lara**

Near Jerez de la Frontera (localities Cortijo del Pino, and Cortijo del Alijar, Province of Cadíz, southwestern Spain), Pérez Lara (1896: 329) found a population of *L. trimestris* characterized by having the indument composed of scattered, small and stellate hairs (*L. trimentis* s.str. has hairs that are simple or in fascicles, not stellate, long and densely arranged). The author described the Cadíz population at varietal rank, as *L. trimestris* var. *brachypoda*.

There is one specimen at MAF (code 35596) bearing two pieces of one plant collected by Pérez Lara in the locality Cortijo del Pino on August 19, 1880; it appears to be the only extant exsiccata that is part of the original material, and it is here chosen as the lectotype of the name *Lavatera trimestris* var. *brachypoda*.

***Lavatera trimestris* var. *trimestris* f. *colorata*****Gatt. & Maire**

*Lavatera trimestris* f. *colorata* Gatt. & Maire was described by Maire (1949: 130) to distinguish forms with purple petals (“*A typo non differ nisi floribus vivide purpureis (nec roseis)*”). There is one specimen at MPU (code 004731) bearing a terminal flowered branch collected by J. Gattefossé (no. 2058) in Morocco (locality Fedhala) on May 15, 1946. The date of collection is ante-1949, and the other label data completely match the protologue; moreover, the label was signed by R. Maire. Since no further specimens (possible syntypes) were found, and according to the wide discussion by McNeill (2014), I here designate the MPU sheet as the lectotype of Maire’s name.

***Olbia deflexa* Moench**

Moench (1802: 200) published *Olbia deflexa* citing as synonym *Lavatera punctata*, wrongly attributed to Linnaeus and referring to “Sp. pl. III. p. 797”. The latter quotation refers to a Willdenow’s description in the 4<sup>th</sup> Edition of *Species Plantarum* (Willdenow 1800: 797) of *L. punctata* All. The Moench name can be interpreted as a replacement name of *L. punctata*. Since this latter name was validly and legitimately published, *O. deflexa* is a superfluous and illegitimate name according to Arts. 51.1 and 52.2.

***Stegia lavatera* DC.**

The name *Stegia lavatera* was published by Candolle (1805: 856) citing as synonym *Lavatera trimestris* L. Candolle’s name is, therefore, a new, superfluous and illegitimate name according to Arts. 52.1 and 52.2.

**Discussion*****Lavatera africana* Mill.**

The synonym cited by Miller (1768: *Lavatera* no. 2) from Boerhaave (1727: 268), was reported by Linnaeus (1738: 348, 1748: 203) as a synonym of, respectively, “*Lavatera foliis trilobis, lacinia media productiore, caule herbaceo*”, and “*LAVATERA foliis glabris, caule scabro herbaceo, pedunculis unifloris, fructibus orbiculo tectis*”. In the 1<sup>st</sup> edition of *Species Plantarum* Linnaeus (1753: 692) published the name *L. trimestris* using a diagnosis taken directly from the *Hortus Upsaliensis* (Linnaeus 1748: 203); moreover, he cited the synonym from the *Hortus Cliffortianus* (Linnaeus 1738: 348). However, I have not been able to trace Boerhaave’s polynomial in any of Linnaeus’ works published after 1753 (1<sup>st</sup> edition of *Species Plantarum*). There are three sheets at BM (codes 000646478, 000646479, 000646480; images available at <http://www.nhm.ac.uk/resources/research-curation/projects/clifford-herbarium/lgimages/BM000646478.JPG>, <http://www.nhm.ac.uk/resources/research-curation/projects/clifford-herbarium/lgimages/BM000646479.JPG>, and <http://www.nhm.ac.uk/resources/research-curation/projects/clifford-herbarium/lgimages/BM000646480.JPG>) bearing, respectively, the original annotations “*Lavatera fo-*

*lio et facie Altheae*”, “*Lavatera africana flore pulcherrimo*”, and “*Malva vel Lavatera folio et facie Altheae*” [“*Lavatera folio et facie Altheae*”, and “*Malva vel Lavatera folio et facie Altheae*” are listed by Boerhaave (1727: 268)]. All these sheets are original material for the name *L. trimestris*, and the pinned plants can be identified as *L. trimestris* according to the current concept of this species (see e.g. Pignatti 1982; Fernandes 1968b, 1993). Furthermore, these plants show features that match Miller’s description of his *L. africana*. Also the chosen lectotype of *Lavatera africana* Mill. (see below) is identifiable as *L. trimestris*, showing the following characteristics: herbaceous plant with leaves glabrous, the upper suborbicular, 3-lobed with base rounded to cordate and margins crenate, the more distal leaves sagittate, 3-lobed with central lobe much longer than the lateral ones and margins dentate; flowers solitary, with epicalyx segments wide and acuminate, calyx longer than the epicalyx with lobes acute, and petal 3–4 times longer than the calyx.

Concerning the distribution area of *Lavatera africana*, Miller (1768) indicated that the species “...grows naturally at the Cape of Good Hope”. This information apparently contrasts with the current known distribution of *L. trimestris* [western Europe, north-western Africa, and south-western Asia (see Valdés 2011)]. However, according to recent floristic data (see e.g., SANBI 2012a), *L. trimestris* also occurs in South Africa where it is considered a naturalized alien. Miller (1768) also reported “...Cape of Good Hope, from whence the seed were brought to Holland, and the plants were cultivated...”. On the basis of the J. Banks annotation at the top left of the neotype preserved at BM, it is likely that P. Miller examined specimens based on cultivated plants growing from seed collected in South Africa.

Considering all the above, it is here proposed to treat *Lavatera africana* Mill. as a heterotypic synonym of *L. trimestris*, which holds nomenclatural priority (1768 vs. 1753).

***Lavatera biennis* M.Bieb.**

On the basis of current knowledge (see e.g. Pignatti 1982, Fernandes 1968b, 1993), the comparison of types and diagnoses of *L. biennis*, *L. trimestris*, *L. maroccana*, and *L. punctata*, and the examination of further specimens, the name *L. biennis* can be synonymised with *L. punctata* on the basis of two main characters: 1) the carpophore not expanded over the mericarps, 2) upper leaves 3-lobed with the apical lobe clearly longer than the lateral ones. Both *L. trimestris* and *L. maroccana* have the carpophore more or less expanded over the mericarps, and the upper leaves 3-5-lobed with the central lobe usually not longer than lateral ones. *Lavatera punctata* has nomenclatural priority over *L. biennis* (1789 vs. 1798).

***Lavatera moschata* Miergues and *Lavatera moschata* Moris**

Based on the comparison between *L. moschata* Miergues and *L. trimestris* s. str. (protologues, types and other specimens), and the examination of treatments in recent floras (see e.g., Fernandes 1968b, 1993), it appears that the only reliable diagnostic character of *L. moschata* Miergues is the

musky smell of the plants, while *L. trimestris* s. str. has a herbaceous smell. Battandier and Trabut (1888: 115) proposed the varietal rank for Miergues' species. Although *L. moschata* Miergues is illegitimate, the combination proposed by Battandier and Trabut (l.c.) is to be considered legitimate and should be cited as *L. trimestris* var. *moschata* Batt. & Trab. (Art. 58.1 Ex.2 of ICN).

Considering all the above, I here propose to consider *L. trimestris* var. *malvaeformis* as a heterotypic synonym of *L. trimestris* var. *trimestris*, while *L. trimestris* var. *moschata* Batt. & Trab. is a pro parte synonym of both *L. trimestris* var. *trimestris*, and *L. moschata* by Miergues.

Although further taxonomic investigations (e.g., molecular ones) are needed to definitively establish the taxonomic value of the Miergues variety, on the basis of both the characteristics of this taxon (i.e. the musky smell), as well as its distribution (which seems to be a restricted area of N-Algeria, in the Blinda Province), I here propose to accept the Miergues *Lavatera*, by maintaining the varietal rank. A new combination of *L. trimestris* var. *moschata* Batt. & Trab. is here proposed (see the paragraph "Taxonomic treatment").

#### *Lavatera trimestris* var. *brachypoda* Pérez Lara

Fernandes (1993: 234) stated that *L. trimestris* var. *brachypoda* seemed to be extinct in Spain, since no subsequent population was found. However, Ortiz and López (2012) recently rediscovered two populations in the Province of Cadíz, in the localities Cañada de los Marchantes, and Peña Arpada. The latter authors confirm that the indumentum represents the main diagnostic character separating *L. trimestris* var. *brachypoda* and *L. trimestris* var. *trimestris*, as previously reported by Fernandes (1993: 234), sub *Stegia trimestris* (L.) Luque & Devesa var. *brachypoda* (Pérez Lara) Luque & Devesa]. Outside Spain, *L. trimestris* var. *brachypoda* was recently recorded in Belgium (Verloove and Lambinon 2011), where the taxon is considered alien.

The taxonomic status of *L. trimestris* var. *brachypoda* needs further investigation (i.e. new field surveys), so I prefer to provisionally maintain it at the varietal rank, in agreement with the Spanish authors (Fernandes 1993).

#### *Lavatera trimestris* var. *trimestris* f. *colorata* Gatt. & Maire

On the basis of the current concept, the colour of the petals in *L. trimestris* s. str. shows a wide range of variation, from white to deep-rose (see e.g., Fernandes 1993). I consider the coloured form named by Maire (1949) to be part of this variation. So, Maire's name is here treated as a heterotypic synonym of *Lavatera trimestris* var. *trimestris*.

#### Taxonomic treatment

*Lavatera punctata* All. var. *maroccana* Batt. & Trab., Bull. Soc. Hist. Nat. Afrique N. 9: 14. 1918 ≡ *Malva maroccana* (Batt. & Trab.) Verloove & Lambinon, New J. Bot. 1(1): 40. 2011 [31 August 2011] ≡ *Lavatera maroccana* (Batt. & Trab.) Maire, Bull. Soc. Hist. Nat. Afrique N. 17: 107. 1926.

**Lectotype (here designated):** Morocco, Taourirt, ravines, 07 May 1916, *Ducellier s.n.* (MPU-001641!). Image of the lectotype available at <http://www.herbier-mpu.org/zoomify/zoomify.php?fichier=MPU001641>

– *Malva maroccana* (Batt. & Trab.) Soldano, Banfi and Galasso, Atti Soc. Ital. Sci. Nat. Mus. Civico Storia Nat. Milano 152: 95. 2011, isonym [November 2011].

– *Malva maroccana* (Batt. & Trab.) Valdés, Willdenowia 41(2): 319. 2011, isonym [20 December 2011].

*Lavatera punctata* All., Auct. Fl. Pedem.: 26. 1789 [January-March 1789] ≡ *Malva punctata* (All.) Alef., Oesterr. Bot. Z. 12: 258 1862 ≡ *Olbia deflexa* Moench, Suppl. Meth. (Moench): 200. 1802, *nom. nov. pro Lavatera punctata* All., *nom. superfl. et illeg.* (Art. 52.2 of ICN) ≡ *Althaea punctata* (All.) Kuntze, Revis. Gen. Pl. 1: 66. 1891.

**Neotype (here designated by D. Iamónico and L. Guglielmo):** Italy, ex *Nicaea*, s.d., s.coll. s.n. (TO-1!) – Fig. 2.

= *Lavatera biennis* M.Bieb., Tabl. Prov. Mer Casp. 116. 1798 ≡ *Althaea biennis* (M.Bieb.) Kuntze, Revis. Gen. Pl. 1: 66. 1891.

**Lectotype (here designated):** Azerbaidzhan, *Ex planitiibus Sibirvanicis*, 1796, *Bieberstein s.n.* (LE-01009603!) – Fig. 3.

– *Malva punctata* (L.) G.H.Loos, Jahrb. Bochum. Bot. Vereins. 1: 125. 2010, isonym [February 2010].

*Lavatera trimestris* L., Sp. Pl. 2: 692. 1753 ≡ *Malva trimestris* (L.) Salisb. var. *trimestris*, Prodr. Stirp. Chap. Allerton: 381. 1796 ≡ *Lavatera rosea* Medik., Malv.: 40. 1787, *nom. nov. pro Lavatera trimestris* L., *nom. superfl. et illeg.* (Arts. 52.1,



Fig. 2. Neotype of the name *Lavatera punctata* (TO-1!).

and 52.2 of ICN) ≡ *Lavatera grandiflora* Moench, Meth.: 614. 1794, *nom. nov. pro Lavatera trimestris* L., *nom. superfl. et illeg.* (Arts. 52.1, and 52.2 of ICN) ≡ *Stegia lavatera* DC., Fl. Fr., ed. 5, 4(2): 856. 1805, *nom. nov. pro Lavatera trimestris* L., *nom. superfl. et illeg.* (Arts. 52.1, and 52.2 of ICN) ≡ *Stegia trimestris* (L.) Risso, Fl. Nice: 96. 1844 ≡ *Althaea trimestris* (L.) Kuntze, Revis. Gen. Pl. 1: 66. 1891.

**Lectotype** (designated by Fernandes 1968a: 400): Herb. Linn., no. 871.11 (LINN!). Image of the lectotype available at <http://linnean-online.org/8081/>

= *Lavatera africana* Mill., Gard. Dict., ed. 8.: *Lavatera* n. 2. 1768 [16 Apr 1768].

**Neotype (here designated)**: England, Chelsea Physic Garden from seed growing in the Cape of Good Hope (South Africa), *s.d.*, *s.n.* (BM-000603431!) – Fig. 1.

= *Lavatera trimestris* var. *malvaeformis* Ball, Spic. Fl. Maroc.: 376. 1877.

**Type**: not designated.

= *Lavatera trimestris* var. *trimestris* f. *colorata* Gatt. & Maire, Bull. Soc. Nat. Af. N. 39(7–8): 130. 1949.

**Lectotype (here designated)**: Morocco, Fedhala, *Gattefossé 2058* (MPU-004731!), image of the lectotype available at <http://www.herbier-mpu.org/zoomify/zoomify.php?fichier=MPU004731>.

= *Lavatera trimestris* var. *moschata* Batt. and Trab., Fl. Alg. 1: 115. 1888, *p. p.*

= *Stegia trimestris* (L.) T.Luque & J.A.Devesa, Lagascalía 14(2): 237. 1986, *isonym*.

= *Malva trimestris* (L.) G.H.Loos, Jahrb. Bochum. Bot. Vereins. 1: 125. 2010, *isonym* [February 2010].

*Lavatera trimestris* var. *brachypoda* Pérez Lara, Soc. Esp. Hist. Nat. 24: 329. 1896 ≡ *Malva trimestris* (L.) Salisb. var. *brachypoda* (Pérez Lara) Verloove & Lambinon, New J. Bot. 1(1): 40. 2011 [31 August 2011].

**Lectotype (here designated)**: Spain, Cadíz, Cortijo del Pino, 19 August 1880, *Pérez Lara s.n.* (MAF-35596!) – Fig. 4.

*Malva trimestris* (L.) Salisb. var. *moschata* (Batt. and Trab.) Iamónico, *comb. nov.* ≡ *Lavatera trimestris* var. *moschata* Batt. and Trab., Fl. Alg. 1: 115. 1888 ≡ *Lavatera moschata* Miergues, Bull. Soc. Bot. France 5: 593. 1858, *nom. illeg.* (Art. 52.1), non *Lavatera moschata* Moris, Stirp. Sard. Elench. 1: 9. 1827.

**Neotype (here designated)**: Algeria, L'Arba, May, *Miergues s.n.* (P-04994665!, image of the neotype available at <http://sonneratphoto.mnhn.fr/2012/09/27/10/P04694665.jpg>).

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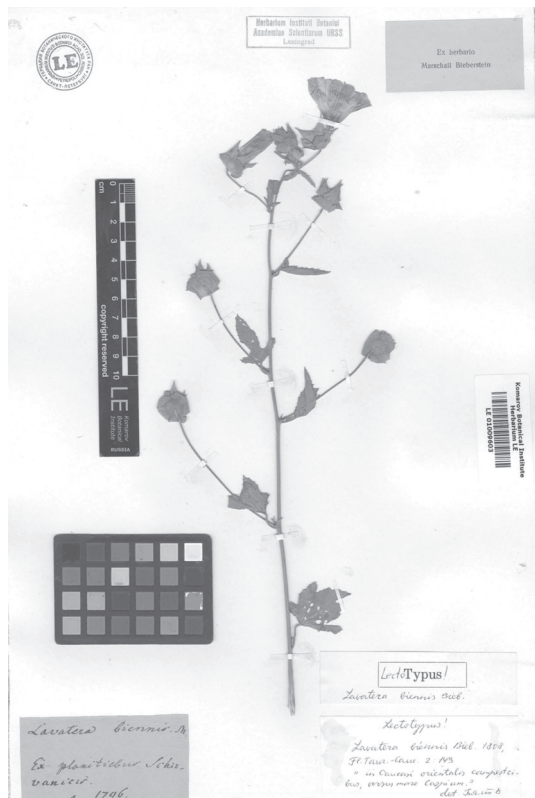


Fig. 3. Lectotype of the name *Lavatera biennis* (LE-01009603!).

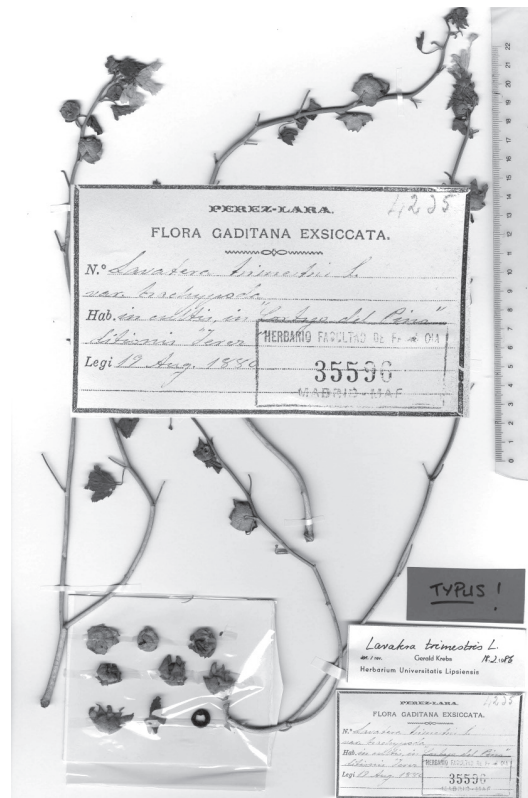


Fig. 4. Lectotype of the name *Lavatera trimestris* var. *brachypoda* (MAF-35596!).

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