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Typification of the name *Lavatera triloba* subsp. *pallescens* (Moris) Nyman and reassessment of *L. minoricensis* Cambess. (*L. triloba* subsp. *minoricensis* comb. nov.)

by

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Abstract

Escobar García, P., Mascia, F. & Bacchetta, G. 2010. Typification of the name Lavatera triloba subsp. pallescens (Moris) Nyman and reassessment of L. minoricensis Cambess. (L. triloba subsp. minoricensis comb. nov.). *Anales Jard. Bot. Madrid* 67(2): 79-86.

The taxonomic identity of two poorly known taxa of the *Lavatera triloba* aggregate (Malvaceae) is clarified. The name *L. triloba* subsp. *pallescens* (Moris) Nyman is reassessed, and a new combination, *L. triloba* subsp. *minoricensis*, is proposed. Both taxa were originally described as species, and later either regarded as synonymous or alternatively subsumed as mere formae within subsp. *pallescens*. The extreme rarity of the plants led to insufficient knowledge and subsequent misinterpretation of the basionyms, *L. minoricensis* Cambess. from Minorca (Balearic Islands, Spain) and *L. pallescens* Moris from southwestern Sardinia (Italy). The combination *L. triloba* subsp. *pallescens* (Moris) Nyman was used to refer the Minorcan plants despite their clear differences in morphology and ecology. The rediscovery of two Sardinian populations of *L. triloba* subsp. *pallescens* in nature, after more than 110 years without reports or collections, has allowed for re-evaluation and typification of the misused names.

Keywords: *Lavatera triloba* aggregate, *Malvaceae*, taxonomy, endemism, Sardinia, Minorca, typification.

Resumen

Escobar García, P., Mascia, F. & Bacchetta, G. 2010. Tipificación del nombre Lavatera triloba subsp. pallescens (Moris) Nyman y revaluación de L. minoricensis Cambess. (L. triloba subsp. minoricensis comb. nov.). *Anales Jard. Bot. Madrid* 67(2): 79-86 (en inglés).

El presente artículo clarifica la identidad de dos táxones escasamente conocidos pertenecientes al complejo *Lavatera triloba* (Malvaceae). Se tipifica el nombre *Lavatera triloba* subsp. *pallescens* (Moris) Nyman y se propone una combinación nueva, *Lavatera triloba* subsp. *minoricensis*. Ambos táxones fueron originalmente descritos como especies, para posteriormente ser considerados sinónimos o ser incluidos como meras formas dentro de la subespecie *pallescens*. La extrema rareza de estas plantas en la naturaleza y la consiguiente falta de materiales para su estudio ha obstaculizado la correcta interpretación de los basiónimos, *L. pallescens* Moris de Cerdeña (Italia) y *L. minoricensis* Cambess. de Menorca (Islas Baleares, España). La combinación *L. triloba* subsp. *pallescens* se ha usado habitualmente para referir tanto las plantas sardas como las menorquinas, pese a la existencia de diferencias morfológicas y ecológicas sustanciales entre ellas. El redescubrimiento de dos poblaciones de *L. triloba* subsp. *pallescens* Moris en Cerdeña, tras más de 110 años sin referencias ni recolecciones, ha permitido la reevaluación y tipificación de estos dos nombres malinterpretados.

Palabras clave: complejo *Lavatera triloba*, *Malvaceae*, taxonomía, endemismo, Cerdeña, Menorca, tipificación.

Introduction

The *Lavatera triloba* aggregate is a monophyletic group of perennial herbs or sub-shrubs endemic to the Western Mediterranean region (Escobar & al., 2009). The presence of clear morphological synapomorphies, such as the indumentum composed of varying mixtures of fasciculate and stellate hairs as well as single glands, and the arrangement of the flowers in axillary fascicles, led Fernandes (1968a) to recognise it as section *Glandulosae* R. Fern. The *L. triloba* aggregate includes five taxa of ambiguous tax-

onomic status: *L. triloba* L. subsp. *triloba* is a tall herbaceous perennial or subshrub with large purple flowers and petals up to 30 mm long. It occurs on the Iberian Peninsula and in Sardinia. *Lavatera flava* Desf. is a tall perennial herb or subshrub endemic to north Africa growing on clayey sediments with high contents in salts. *Lavatera agrigentina* Tineo from Sicily is morphologically and ecologically similar to *L. flava*. Both taxa have large pale flowers (yellowish in *L. agrigentina*; whitish, yellowish or pinkish in *L. flava)* with petals up to 25 mm.

Lavatera pallescens was described in 1837 by the Italian botanist G.H. Moris to distinguish a plant with pale green leaves and whitish-pinkish flowers from coastal grasslands on the isle of San Pietro (offshore southwestern Sardinia), from typical *L. triloba* growing on clayey sediments around Elmas. The taxon was for the last time collected in 1894 by Ugolino Martelli (herbarium voucher preserved in FI). Only after more than 110 years, we encountered two small populations in southwestern Sardinia. In 1827, the French botanist J. Cambessèdes described *L. minoricensis* from Minorca, on the basis of its round, crispate leaves and shorter corolla. This taxon shares with *L. pallescens* a lower growth height than *L. triloba* and pale (pink to whitish-pinkish, sometimes yellowish) flowers.

Our work is the first contribution to the knowledge of the Sardinian endemic *L. pallescens* after its description. We aim to prove that the Minorcan and Sardinian *L. minoricensis* and *L. pallescens* represent distinct taxa, which are morphologically and ecologically differentiated both from each other and from other members of the *L. triloba* aggregate. We argue that *L. pallescens* and *L. minoricensis* should be treated as subspecies of *L. triloba* and provide evidence that the use of the name *L. triloba* subsp. *pallescens* to refer to the Minorcan plants is erroneous and led by the extreme rarity of *L. triloba* subsp. *pallescens* in nature, and subsequently in the collections.

Material and methods

During spring and early summer 2008 we collected materials for a project dealing with the phylogeography of the *L. triloba* aggregate. We collected *L. triloba* subsp. *triloba* in Iberia and Sardinia, *L. minoricensis* in Minorca, *L. flava* in North Africa and *L. agrigentina* in Sicily. We searched for *L. pallescens* in Sardinia, including its locus classicus on the Isle of San Pietro, and the main coastal limestone massifs (cliffs of Capo Caccia near Alghero in northwestern Sardinia, cliffs and mountains of southwestern Sardinia, Isle of Tavolara).

The materials studied included herbarium vouchers from BC, CAG, FI, MA, MPU, SASSA and TO. Vouchers of the materials collected were deposited at CAG and WU.

Results and discussion

Taxonomic treatment

Lavatera minoricensis is morphologically and ecologically substantially different from the Sardinian *L. pallescens* (Table 1). It is a compact plant lower than 50 cm, while *L. pallescens* is usually taller than 1 m. The leaves of *L. pallescens* are pale yellowish-green, usually up to 10 × 10 cm and have three to five lobes (sometimes seven) and an undulate margin. *Lavatera minoricensis* has pale green round, smaller leaves (up to 3.5 × 3.5 cm) with crispate margins, and only the upper leaves subtending the flowers are shallowly three- or five-lobed. The adaxial leaf epidermis is markedly differentiated, and trichome type and relative abundance are important diagnostic characters (Fig. 1). In *L. pallescens*, the upper leaf surface is covered by a dimorphic indumentum of numerous fasciculate hairs and sparse single glandular hairs (Fig. 1, C, H). Contrastingly, the upper leaf surface indumentum of *L. minoricensis* is trimorphic, consisting of sparse fasciculate hairs, sparse glands and abundant subsessile to long pedicellate, stellate hairs that detach when the plant is touched (Fig. 1, D, I). As a result, *L. minoricensis* is strongly hispid while *L. pallescens* is not. Both taxa are also easily distinguishable from the other members of the *L. triloba* aggregate. *Lavatera t.* subsp. *triloba* has a trimorphic indumentum with numerous fasciculate hairs, numerous shortly pedicellate or (sub-)sessile stellate hairs that detach when the plant is touched, and abundant single glands (Fig. 1, E, J, K); as a result, plants feel often wet when touched and are hispid. *Lavatera agrigentina* and *L. flava* display a dimorphic upper leaf surface indumentum of sparse fasciculate hairs and abundant single glands, resulting in fetid, viscid plants that are not hispid (Fig. 1, A, F; B, G).

In *L. pallescens*, the flowers are smaller than in typical *L. triloba* with petals up to 25 mm long, clearly exceeding the calyx lobes, while in *L. minoricensis* the flowers are smaller and the petals, which are up to 15 mm long, are shorter or only slightly longer than the calyx. While the flowers of *L. pallescens* open normally, those of *L. minoricensis* often remain almost closed, as depicted on plate CXLVI of Willkomm's *Illustrationes Florae Hispaniae* II (1886-1892, under *Malva minoricensis*). Moreover, *L. minoricensis* seems to be selfing (Iriondo & al., 2003), while other members of

Table 1. Diagnostic morphological characters, ecology and distribution of the five members of the *Lavatera triloba* aggregate.

	L. triloba subsp. ***triloba***	***L. triloba*** subsp. ***pallescens***	***L. triloba*** subsp. ***minoricensis***	***L. flava***	***L. agrigentina***
Plant height	80-150(200) cm	(50)70-150 cm	10-50 cm	(80)100-150(200) cm	70-150 cm
Glands	Strongly glandular, often viscid	Sparsely glandular	Sparsely glandular	Strongly glandular, viscid, fetid	Strongly glandular, viscid, fetid
Adaxial leaf surface indumentum (see also Fig. 1)	Trimorphic	Dimorphic	Trimorphic	Dimorphic	Dimorphic
	Fasciculate, long-radiated hairs numerous	Fasciculate, long-radiated hairs very numerous	Fasciculate, short-radiated hairs very sparse	Fasciculate, long-radiated hairs sparse	Fasciculate, long-radiated hairs sparse
	Shortly pedicellate or sessile stellate hairs detaching when touched abundant. Plants hispid	Stellate hairs detaching when touched lacking. Plants not hispid	Subsessile and long pedicellate stellate hairs detaching when touched very abundant. Plants strongly hispid	Stellate hairs detaching when touched lacking. Plants not hispid	Stellate hairs detaching when touched lacking. Plants not hispid
	Single glandular hairs numerous	Single glandular hairs sparse	Single glandular hairs sparse	Single glandular hairs very numerous	Single glandular hairs very numerous
Leaf shape	Orbicular to oblong, subentire to profoundly 3-5 lobed. Leaf margin undulate or crenate	Orbicular to oblong, subentire to profoundly 3-5(7) lobed. Leaf margin undulate	Orbicular, subentire. Leaf margin crispate	Orbicular to oblong, subentire to shallowly 3-lobed. Upper leaves progressively triangular. Leaf margin dentate, undulate	Orbicular to oblong, subentire to 3-lobed. Upper leaves progressively triangular. Leaf margin dentate, undulate
Leaf size	Up to 10 × 10 cm	Up to 10 × 10 cm	Up to 3.5 × 3.5 cm	Up to 7 × 7 cm	Up to 7 × 7 cm
Flower colour	Petals deep purple, only occasionally white, petal nerves darker	Petals pale, whitish with pink shade, petal nerves not darker than the lamina	Petals pale, yellowish or pinkish, petal nerves not darker than the lamina	Petals whitish, pale pink or yellowish, only occasionally purple, very often with darker nerves	Petals pale yellow or white, nerves not darker than the lamina
Dry flower colour	Not turning green when dry	Not turning green when dry	Not turning green when dry	Turning green when dry	Turning green when dry
Petal size	(15)20-30 mm, clearly longer than the calyx	(10)20-25 mm, clearly longer than the calyx	10-15 mm, included in the calyx or slightly exerted	(15)20-25 mm, clearly longer than the calyx	(15)20-25 mm, clearly longer than the calyx
Habitat	Open habitats, clayey saline sediments, often subruderal. Rarely in primary habitats (open scrubland on limestone bedrock)	Coastal limestone screes and rocky outcrops. Only in areas directly exposed to the sea	Coastal limestone areas. Sometimes subruderal	Open habitats, clayey saline sediments, often subruderal	Open habitats, clayey saline sediments
Distribution	Iberian Peninsula, southern Sardinia	Southwestern Sardinia	Northern and eastern Minorca	Northwestern Africa (Morocco, Algeria, Tunisia)	Southern Sicily, historically recorded also in Calabria

the *L. triloba* aggregate fail to set seeds in the absence of pollinators (Escobar, unpubl.). All taxa flower in late spring (May-June, sometimes also July). The morphological characters are stable and are retained under uniform conditions in the greenhouse (Escobar, unpubl.). Seed morphocolorimetric data (Bacchetta, unpubl.) also provide further morphological evidence to distinguish between both taxa.

Maybe because of the early description, the rarity of the plant and the fact that the flower colours are not preserved in dry specimen of *Lavatera*, the name *L. pallescens* has been repeatedly misunderstood and confused. *Lavatera pallescens* was combined as subspecies of *L. triloba* by Nyman (1878), who ignored the binomial *L. minoricensis*, and was ever since used to refer to the Minorcan plant. In his synopsis of tribe *Malveae*, E.G. Baker (1890) listed both names and gave them varietal status within *L. triloba* L. Later on, *L. pallescens* and *L. minoricensis* were repeatedly interpreted as synonyms, or *L. minoricensis* was treated as forma of subsp. *pallescens* (Fernandes, 1967, 1993).

In her account for *Flora Europaea,* R.B. Fernandes (1968b) followed Nyman (1878) and included both entities in a Minorcan-Sardinian *L. triloba* subsp. *pallescens*. Later, in her synthesis for *Flora iberica*, Fernandes (1993) relied on epicalyx characters to separate subsp. *pallescens* from subsp. *triloba*. Epicalyx pieces united in their lowest third should be characteristic for subsp. *triloba*, while almost free epicalyx pieces should characterize subsp. *pallescens*. The epicalyces of Iberian populations of subsp. *triloba*, however, are often deeply divided, sometimes almost to the base. Deep epicalyx lobation can also be observed in *L. flava* and *L. agrigentina*, as has been noted previously (Cambessèdes, 1827; Rodríguez, 1874; Pau, 1933). Free epicalyx pieces characterize the artificial

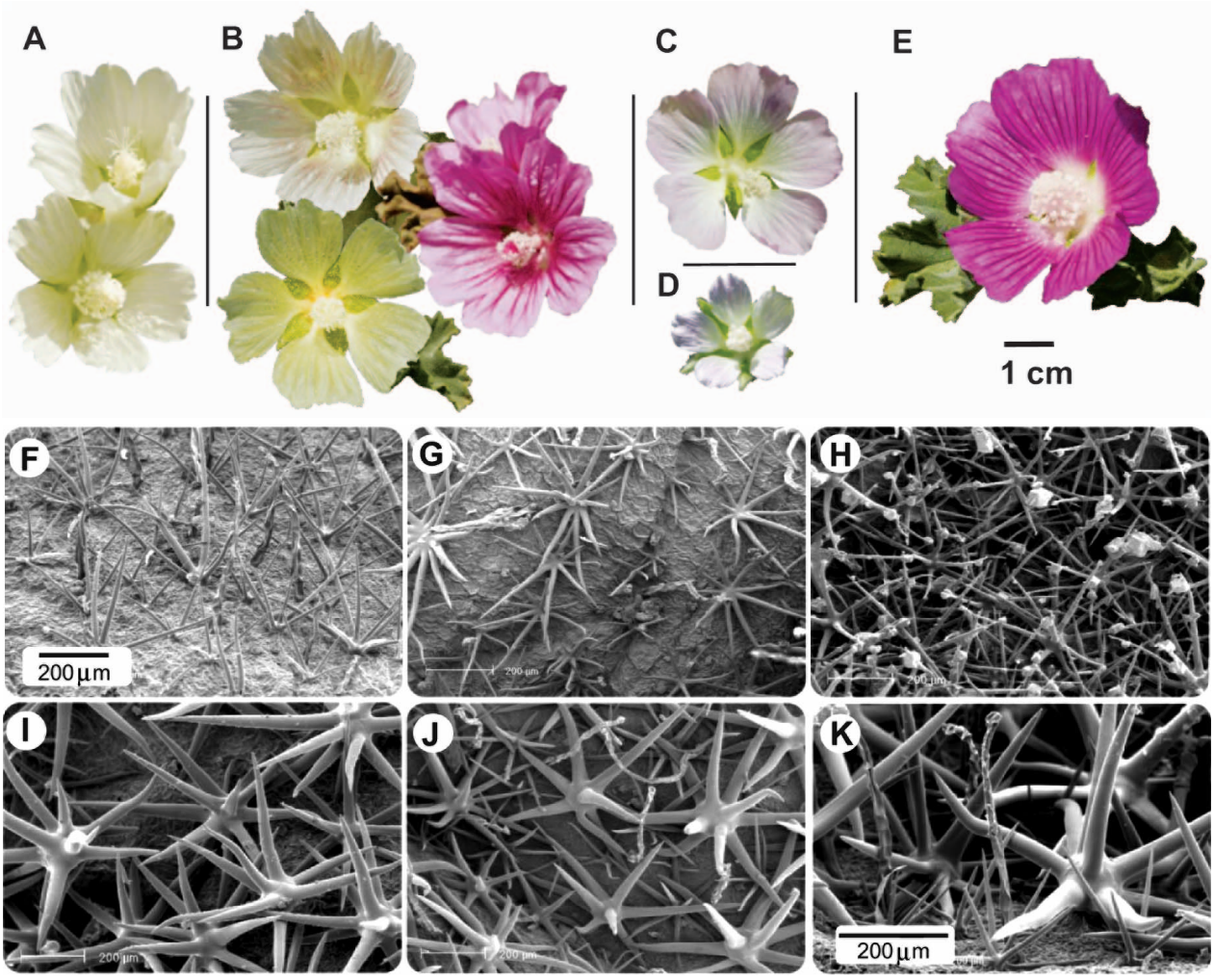

Fig. 1. Flower morphology (**A-E**) and indumentum (**F-K**) in the *Lavatera triloba* aggregate: **A, F,** *L. agrigentina*; **B, G,** *L. flava* displaying its flower colour diversity; **C, H,** *L. triloba* subsp. *pallescens.* The cubic structures at **H** are $NaCl_2$ crystals; **D, I,** *L. t.* subsp. *minoricensis*; **E, J,** *L. t.* subsp. *triloba* from Spain; **K,** idem, detail from Sardinia. Photos F-J have the same magnification.

(Escobar & al., 2009) Linnaean circumscription of *Malva.* The epicalyx configuration of *L. minoricensis* led Rodríguez (1874) to publish the binomial *Malva minoricensis*, later used also by Willkomm (1886-1892) and Pau (1933).

Lavatera triloba subsp. **pallescens** (Moris) Nyman, Consp. Fl. Eur.: 128. 1878

Lavatera pallescens Moris in Fl. Sardoa 1: 301. 1837 [Basionym]

Lavatera triloba var. *pallescens* (Cambess.) Baker in J. Bot. (London) 28: 241. 1890

Type: [Italy, Sardegna:] Isola di San Pietro. In maritimis. Majo. *Moris 226* (lectotype, here designated, TO!) (Fig. 2, A, C).

Lavatera triloba subsp. **minoricensis** (Cambess.) P. Escobar, **comb. nov.**

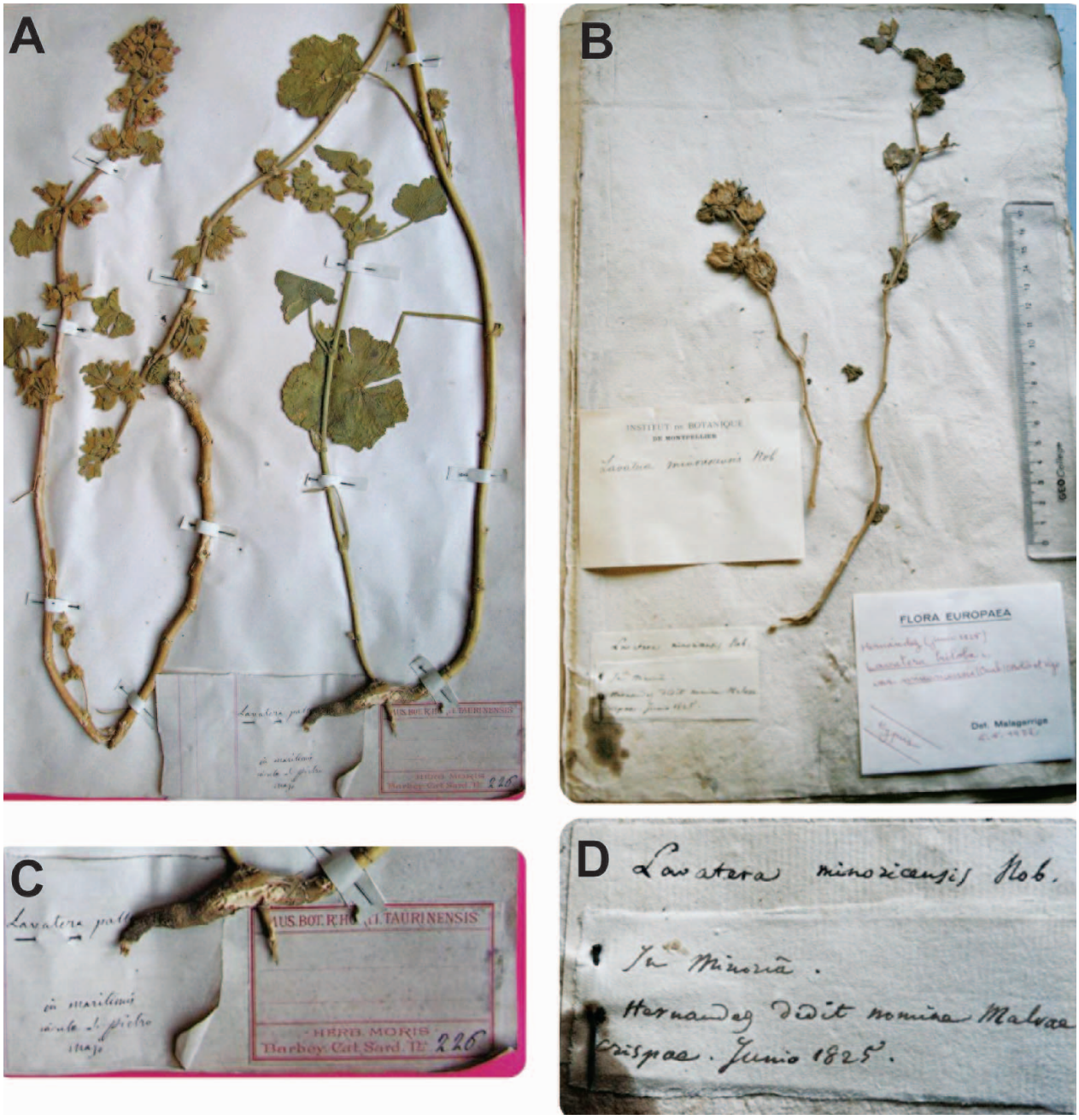

Fig. 2. Type specimens of: **A,** *Lavatera triloba* subsp. *pallescens* (Moris) Nyman stored in TO; **C,** detail of the label; **B,** *L. t.* subsp. *minoricensis* in MPU; **D,** detail of the label.

Lavatera minoricensis Cambess. in Mém. Mus. His. Nat. 14: 334. 1827 [basionym]
Malva minoricensis (Cambess.) J.J. Rodr. in Anales Soc. Esp. Hist. Nat. 3: 13. 1874
Lavatera triloba var. *minoricensis* (Cambess.) Baker in J. Bot. (London) 28: 241. 1890
Althaea minoricensis (Cambess.) Borbás, Magyar Bot. Lapok 2: 302. 1903
Althaea pallescens Borbás, Magyar Bot. Lapok 2: 302. 1903
Lavatera flava var. *minoricensis* (Cambess.) Pau in Brotéria Ci. Nat. 2: 47. 1933
Lavatera triloba [subsp. *pallescens*] f. *minoricensis* (Cambess.) R. Fernandes in Feddes Repert. 74: 20. 1967
Lavatera triloba var. *minoricensis* (Cambess.) O. Bolòs & Vigo in Butll. Inst. Catalana Hist. Nat. 38: 81. 1974, comb. superf.

Type: [Spain, Balearic Islands, Menorca] In Minorca. Hernandez dedit nomine *Malvae crispae*. Junio 1825. *Knoche herbarium, unnumbered* (lectotype, MPU! selected by Rosselló & Sáez, 2000) (Fig. 2, B, D).

KEY TO THE *LAVATERA TRILOBA* AGGREGATE

1. Petals purple, rarely whitish or white ..... **L. triloba** subsp. **triloba**
– Petals white, yellowish or pinkish 2
2. Leaves up to 3.5 × 3.5 cm, crispate, rounded. Petals 10-15 mm long, included in the calyx or only slightly exerted ..... **L. triloba** subsp. **minoricensis**
– Leaves up to 10 × 10 cm, undulate, with 3-5(7) lobes. Petals (15)20-25 mm long, clearly longer than the calyx 3
3. Plants with sparse single glands and a dense indumentum of fasciculate hairs ..... **L. triloba** subsp. **pallescens**
– Plants strongly glandular, fetid; upper leaf surface sparsely covered with fasciculate hairs 4
4. Petals white or yellowish ..... **L. agrigentina**
– Petals white or pinkish with contrasting darker veins, rarely yellowish or completely white ..... **L. flava**

Distribution and ecology

The taxa included in the *L. triloba* aggregate are restricted to the central and western Mediterranean Basin (Fig. 3) (Fernandes, 1968b, 1993; Maire, 1932; Pignatti, 1982). *L. triloba* subsp. *pallescens* is a local endemic of southwestern Sardinia (two populations near the town of Buggerru), and thrives on limestone cliffs and scree slopes directly exposed to the sea (Fig. 4, D). The population on the locus classicus (Isle of San Pietro, offshore southwestern Sardinia) may be extinct due to urban development in the area, as despite intensive field search we failed to find any individuals. *L. triloba* subsp. *minoricensis* is a rare endemic of north and east Minorca and grows principally on limestone screes exposed to the sea, punctually also in

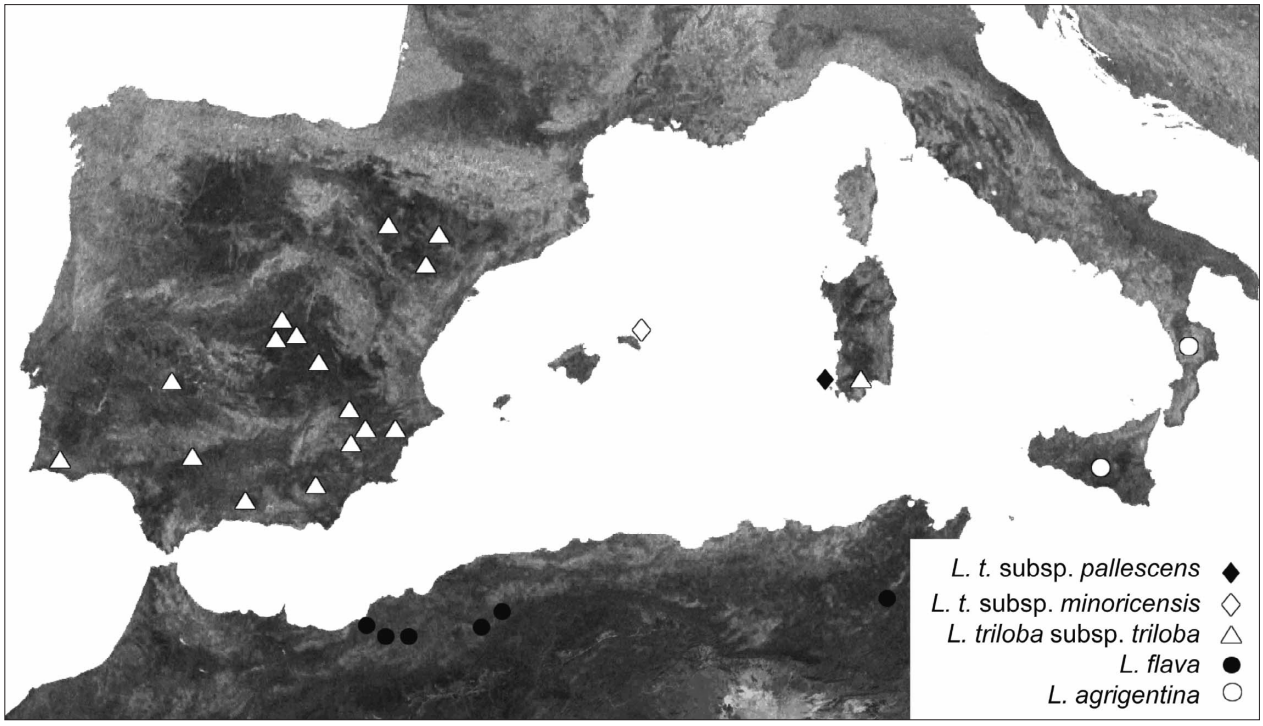

Fig. 3. Distribution map of the five entities included in the *Lavatera triloba* aggregate.

subruderal habitats (Fig. 4, B). *L. agrigentina* is a rare plant endemic of Sicily (Italy), and thrives on saline unconsolidated clayey sediments (Fig. 4, A), mainly in the south of the island near the towns of Siculiana, Agrigento and Aragona. *Lavatera flava* is locally common and occurs in the northwestern Maghreb (northeastern Morocco, northern Algeria, northwestern Tunisia) close to the Mediterranean shoreline, growing on clayey soils, often around endorheic saline lagoons, or as subruderal along irrigation ditches (Fig. 4, C). *Lavatera triloba* subsp. *triloba* is distributed mainly in the tertiary basins of the central and southern Iberian Peninsula and southern Sardinia (principally around the lake of Santa Gilla, Elmas), and can be locally abundant growing around endorheic lagoons, or mainly as subruderal (Fig. 4, E). Only sometimes the plants grow in primary habitats, namely open scrubland on limestone bedrock.

Conclusions

We have shown that *L. pallescens* and *L. minoricensis* are substantially different taxa. The Sardinian plants should be referred to as *L. triloba* subsp. *pallescens* (Moris) Nyman, whereas the Minorcan populations should be treated as subsp. *minoricensis*. This conclusion is not only supported by morphological but also by genetic data (Escobar & al., unpubl.).

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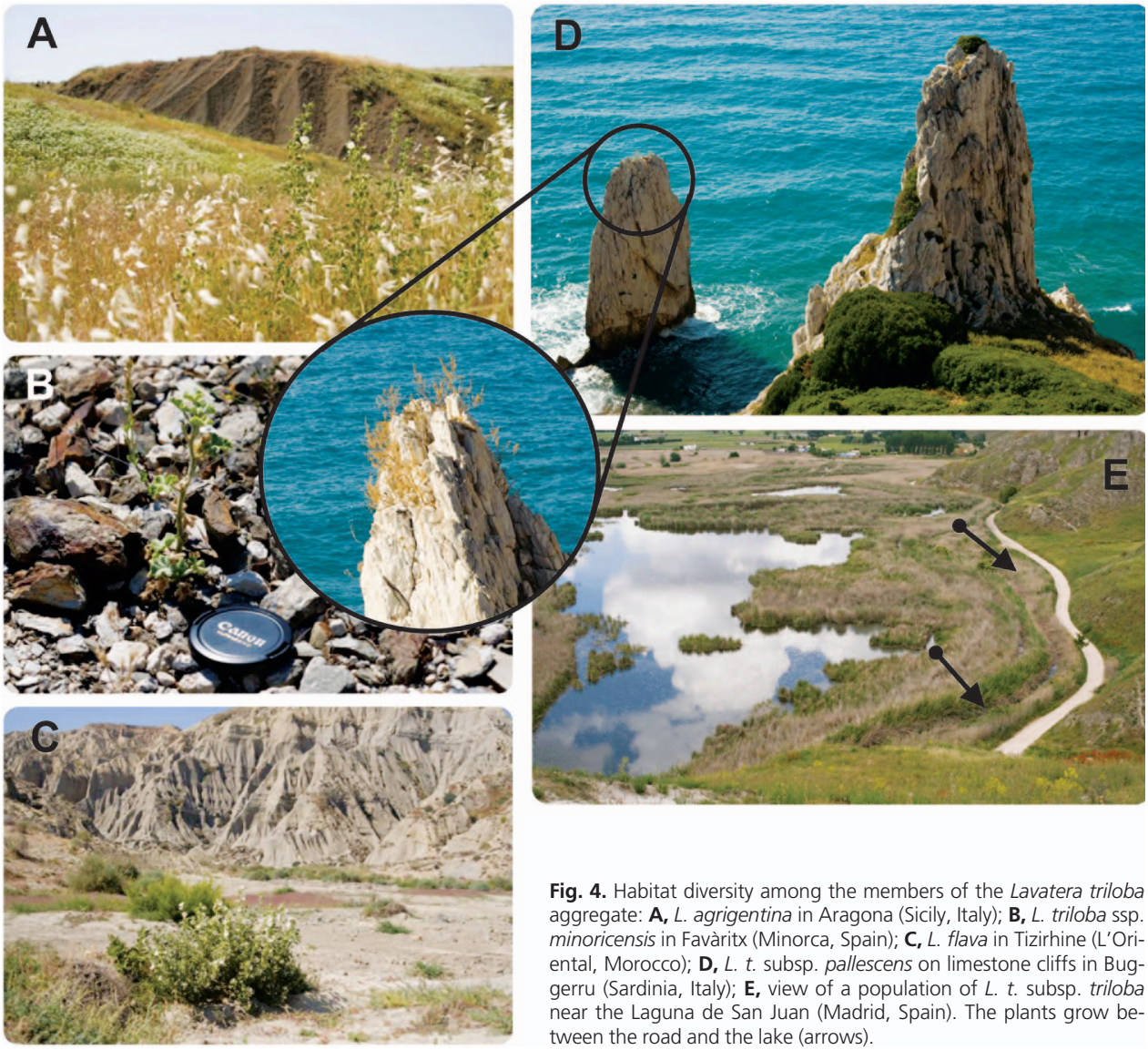

Fig. 4. Habitat diversity among the members of the *Lavatera triloba* aggregate: **A,** *L. agrigentina* in Aragona (Sicily, Italy); **B,** *L. triloba* ssp. *minoricensis* in Favàritx (Minorca, Spain); **C,** *L. flava* in Tizirhine (L'Oriental, Morocco); **D,** *L. t.* subsp. *pallescens* on limestone cliffs in Buggerru (Sardinia, Italy); **E,** view of a population of *L. t.* subsp. *triloba* near the Laguna de San Juan (Madrid, Spain). The plants grow between the road and the lake (arrows).

ter Gutermann (Department of Biogeography, University of Vienna, Vienna), for his valuable advice in taxonomy; José María Iriondo (Universidad Rey Juan Carlos, Madrid), for his comments; Werner Kofler (Department of Palynology, University of Innsbruck, Innsbruck), for the SEM photos; Juan Jesús de la Rosa (Griñón), for his support in the sampling of Iberian *L. triloba*; Gerald Schneeweiss and Peter Schönswetter (Department of Biogeography, University of Vienna, Vienna) for their help in manuscript preparation and the Conselleria de Medi Ambient i Mobilitat (Govern de les Illes Balears, Palma de Mallorca) for authorization to sample *L. triloba* subsp. *minoricensis*. And last but not least, we are grateful to the two anonymous reviewers whose valuable comments helped to improve the manuscript.

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Appendix 1. Studied populations

Lavatera triloba subsp. *minoricensis*. Spain. **Menorca**: Cap de Favàritx, 30-VI-2008, cercana al borde de la carretera, 39°59'49.0''N, 4°15'4.6''E, 75 m, *P. Escobar & P. Fraga 839.* Illa de l'Aire, 30-VI-2008, calizas, 39°48'5.4''N, 4°17'23.2''E, 4 m, *P. Escobar & P. Fraga 836.* Illa de l'Aire, 30-VI-2008, junto al embarcadero, 39°48'5.5''N, 4°17'18.2''E, 2 m, *P. Escobar & P. Fraga 837.* Illa de l'Aire, 30-VI-2008, calizas, 39°48'5.5''N, 4°17'22.8''E, 4 m, *P. Escobar & P. Fraga 838.* Punta Nati, 30-VI-2008, pastizales ralos sobre litosoles calizos, 40°02'57.9''N, 3°49'26.9''E, 100 m, *P. Escobar & P. Fraga 841.* S'Escullar, 30-VI-2008, calizas, 40°3'16.8''N, 3°51'58.9''E, 132 m, *P. Escobar & P. Fraga 840.*

Lavatera triloba subsp. *pallescens*. Italy. **Sardinia**: Buggerru, 24-VI-2009, roquedos y gleras calizos abiertos al mar, 39°23' 29.90"N, 8°24'15.91"E, 39 m, *P. Escobar 162.* Buggerru, 7-VII-2009, 39°24'47.52''N, 8°24'26.98''E, *G. Bacchetta & F. Mascia.*

Appendix 2. Herbarium voucher list

Lavatera triloba subsp. *minoricensis*. Spain. **Menorca**: 18-IV-1933, *Gros,* BC 100320. Cala Llonga, 11-VII-1913, *P. Font Quer,* BC 11648. Faro Nati, 13-VI-1980, acantilados calizos, areniscas con carbonatos, *E. Valdés-Bermejo,* MA 326686. Isla de Colóm, 20-IV-1910, *P. Font Quer,* BC 11647. Maó, Binisarmenya, 26-V-1979, poblament d'*Euphorbia dendroides*, esquists, *M.A. Cardona,* BC 644576. Mahón, près de la Mezquita (Minorque), 17-V-1871, près de la mer, terraines sablonneux, *J.J. Rodríguez* (MPU). Mahón, Mezquita, 17-V-1871, lieux pierreux du littoral, *J.J. Rodríguez* (FI). Mahón, Mezquita, 1-VI-1872, lieux pierreux en bord de la mer, *J.J. Rodríguez* (MPU). Mahón, Mezquita, 1-VI-1872, lieux pierreux près du littoral, *J.J. Rodríguez* (FI). Mahón, Mezquita, 29-V-1873, lieux pierreux maritimes, *J.J. Rodríguez* (FI). Mahón, Mezquita, 29-V-1873, lieux maritimes, *J.J. Rodríguez* (FI). Cala Mezquita, 30-IV-1885, in maritimis fel. schistoso, *Porta & Rigo* (FI). Mahón, Cala Mezquita, 15-V-1899, ad mare, *Bicknell & Pollini* (FI). Mahón, Cala Mezquita, 17-V-1899, ad mare, *Bicknell & Pollini* (MPU). Mahón, Mezquita, 15-V-1899, pr. a Cala Mezquita, isola di Minorica, *Bicknell* (FI). Mahón, Mezquita, 26-V-1900, peñascos marítimos, (without collector), MA 77030. Maó, Cala Mezquita, 11-III-1910, *P. Font Quer,* BC 11649. Cala Mezquita, IV-1918, *E. Rioja,* MA 77734. Cala Mezquita, IV-1918, *E. Rioja,* MA 77735. Cala Mezquita, IV-1918, *E. Rioja,* MA 77736. Minorca, VI-1825, Hernandez dedit nomine *Malvae crispae*, *Herbarium Knoche* (MPU) (lectotypus). Minorque, 18-VII-1912, roches, *Herbarium Knoche* (MPU). Minorque, 9-VII-1912, *Herbarium Knoche* (MPU).

Lavatera triloba subsp. *pallescens*. Italy. **Sardinia**: In maritimis insulae S. Pietro, Majo, *Herbarium Moris* 226 (TO) (lectotypus). In pascuis maritimis humidis et in collinis insulae S. Pietro, V, Müller, *Herbarium Moris 226* (TO). Isola San Pietro, 3-V-1894, *U. Martelli* (FI).

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