A new species of Globularia (Globulariaceae) from the Talassemtane National Park, N Morocco

Authors: Mateos, Marco A., and Valdés, Benito

Source: Willdenowia, 36(1) : 409-412

Published By: Botanic Garden and Botanical Museum Berlin (BGBM)

URL: https://doi.org/10.3372/wi.36.36137

MARCO A. MATEOS & BENITO VALDÉS

A new species of *Globularia (Globulariaceae)* from the Talassemtane National Park, N Morocco

Abstract

Mateos, M. A. & Valdés, B.: A new species of *Globularia (Globulariaceae)* from the Talassemtane National Park, N Morocco. – Willdenowia 36 (Special Issue): 409-412. – ISSN 0511-9618; © 2006 BGBM Berlin-Dahlem.
doi:10.3372/wi.36.36137 (available via http://dx.doi.org/)

Globularia greuteri is described as a species new to science and illustrated. It is endemic to the Talassemtane National Park in the Western Rif Mts in N Morocco. The morphological differences between the new species and its closest relative, *G. liouvillei* from the Moroccan High Atlas, are pointed out.

Key words: *Globularia greuteri,* taxonomy, Rif Mts, endemism.

During a study of the flora and vegetation of the calcareous parts of the Western Rif Mts in N Morocco, several populations of an unusual, acaulescent *Globularia* were found, which shows the characters of *G.* subg. *Abolaria* sect. *Gymnocladium* O. Schwarz: herbaceous, caespitose and sometimes stoloniferous with evergreen leaf rosettes formed by generally entire, petiolate leaves, relatively small capitula with involucres composed of numerous ovate to ovate-lanceolate and more or less acuminate bracts, flowers with a bilabiate calyx and a corolla with deeply trifid lower lip with trinervate segments and the upper lip very variable, from practically absent to bilobate or bifid.

According to Schwarz (1938), *Globularia* sect. *Gymnocladium* includes three mountainous species, *G. nudicaulis* L., *G. gracilis* Rouy & Richter (= *G. nudicaulis* subsp. *gracilis* (Rouy & Richter) Bolòs & al.) and *G. liouvillei* Jahand. & Maire. *G. nudicaulis* shows a wide distribution range in the mountains from N Spain to former Yugoslavia, with numerous populations in Spain, France, Switzerland, Germany, Italy, Austria and former Yugoslavia (Tutin 1972). *G. gracilis* is restricted to the Pyrenees on the border between France and Spain. The third species, *G. liouvillei,* is endemic to the High Atlas in Morocco (Jahandiez & Maire 1923, Schwarz 1938).

The plants from the Rif Mts are most similar to *Globularia liouvillei*. In both taxa basal leaves are more or less horizontally arranged; the capitula are relatively small with lanceolate and acuminate involucral bracts, glabrous inside, hairy outside at the middle and along the margins; the flowers have a densely hairy calyx, and the corolla has a deeply trifid lower lip, about

1/3 longer than the upper and with trinervate segments, and a deeply bifid upper lip with very narrowly linear segments with only one nerve.

However, the plants from the Rif Mts differ from *Globularia liouvillei* by several important characters (Table 1). These differences allow us to recognize the plants from the Talassemtane National Park as a separate and well characterized species that is described here as new to science.

Globularia greuteri M. A. Mateos & Valdés, **sp. nov.**
Holotypus: Morocco, Western Rif mountains, Chefchaouèn, ascent to Jbel Lakraa, c. 2000 m, 35°08'N, 5°08'W, 26.7.1996, *M. C. García, M. A. Mateos, F. J. Pina & I. Sánchez MM 697/96* (SEV 156611; isotypi: B, BC) – Fig. 1.

Herbacea. *Caudex* plus minusve lignosus, abbreviatus, pluriceps, ramis infra rosulam terminalem foliorum vivarum vestigiis foliorum mortuorum dense vestitis, foliis 10-35 × 3-7 mm, spatulatis vel obovato-oblanceolatis, obtusis, in petiolum attenuatis, glabris. *Calathia* subhemisphaerica, solitaria, 10-15 mm diametro, involucri phyllis paleisque lanceolatis, acuminatis, intus glabris, extus in parte media et margine pilosis. *Calyx* bilabiatus, longe pilosus, laciniis lanceolatis, acuminatis, post anthesim tubo 3-4-plo longioribus, anterioribus 2, c. 4.5 × 0.5 mm, posterioribus 3, angustioribus (c. 0.3 mm latis) et parce brevioribus (c. 4 mm longis). *Corolla* glabra, bilabiata, pallide lilacina, 13-nervia, tubo corollino laciniis calycinis valde breviore; labio inferiore ad c. 2/3 aequaliter trifido laciniis late linearibus obtusis, nervo medio fere usque ad apicem conspicuo et nervis lateralibus ad media parte laciniarum evanescentibus; labio superiore inferiore breviore, bipartito, laciniis linearibus angustissimis uninervatis. *Achenia* 1-1.5 × c. 0.5 mm oblongo-subcylindrica, nitida, apice sensim apiculata, in calyce persistente inclusa.

Perennial herb with short, slightly woody, branched stem; branches densely covered by persistent remains of old leaves. *Leaf rosettes* at about soil level. *Leaves* 10-35 × 3-7 mm, spathulate to obovate-oblanceolate, gradually narrowed into the petiole, obtuse or very slightly emarginate, obscurely tridentate, flat, glabrous, thick, with the main nerve slightly marked, persistent. *Capitula* solitary, subglobose, 10-15 mm wide, sessile in the centre of the leaf rosettes. *Involucral bracts* and receptacular scales lanceolate, acuminate, glabrous inside, hairy at the middle and at the margins outside. *Calyx* slightly bilabiate, densely hairy; tube c. 1.5 mm long; teeth lanceolate, long-acuminate, after flowering 3-4 times as long as the tube, the two lower ones c. 4.5 × 0.5 mm, the three upper ones narrower and slightly shorter, c. 4 × 0.3 mm. *Corolla* glabrous, bilabiate, scarcely longer than the calyx, pale blue-violet; tube 2.5-3.5 mm, markedly shorter than calyx, 13-nerved; lower lip deeply trifid to 2/3 with equal, linear, obtuse lobes of 2.5-3 × c. 0.3 mm, with 3 nerves each, the central almost to the tip, the lateral ones up to about 1/2 of the lobe; upper lip c. 1/3 shorter than the lower, markedly bifid, with very narrow, linear lobes, c. 0.1 mm wide, with 1 nerve. *Achenes* 1-1.5 × c. 0.5 mm, narrowly obovoid to oblong-cylindrical, ± gradually narrowed to the apex, black, glossy, smooth, included in the persistent calyx.

Table 1. Main differences between *Globularia greuteri* and *G. liouvillei*.

Characters	*G. greuteri*	*G. liouvillei*
Leaf size	10-35 × 3-7 mm	20-40 × 5-13 mm
Involucral bracts and receptacular scales	acuminate	aristate
Calyx teeth	longer than tube at anthesis; 3-4 times longer than tube in fruit	as long as tube at anthesis; somewhat longer than tube in fruit
Corolla tube	much shorter than calyx	as long as calyx
Nerves of lower corolla lip	lateral nerves vanishing at about middle of lobes	lateral nerves vanishing near base of lobes

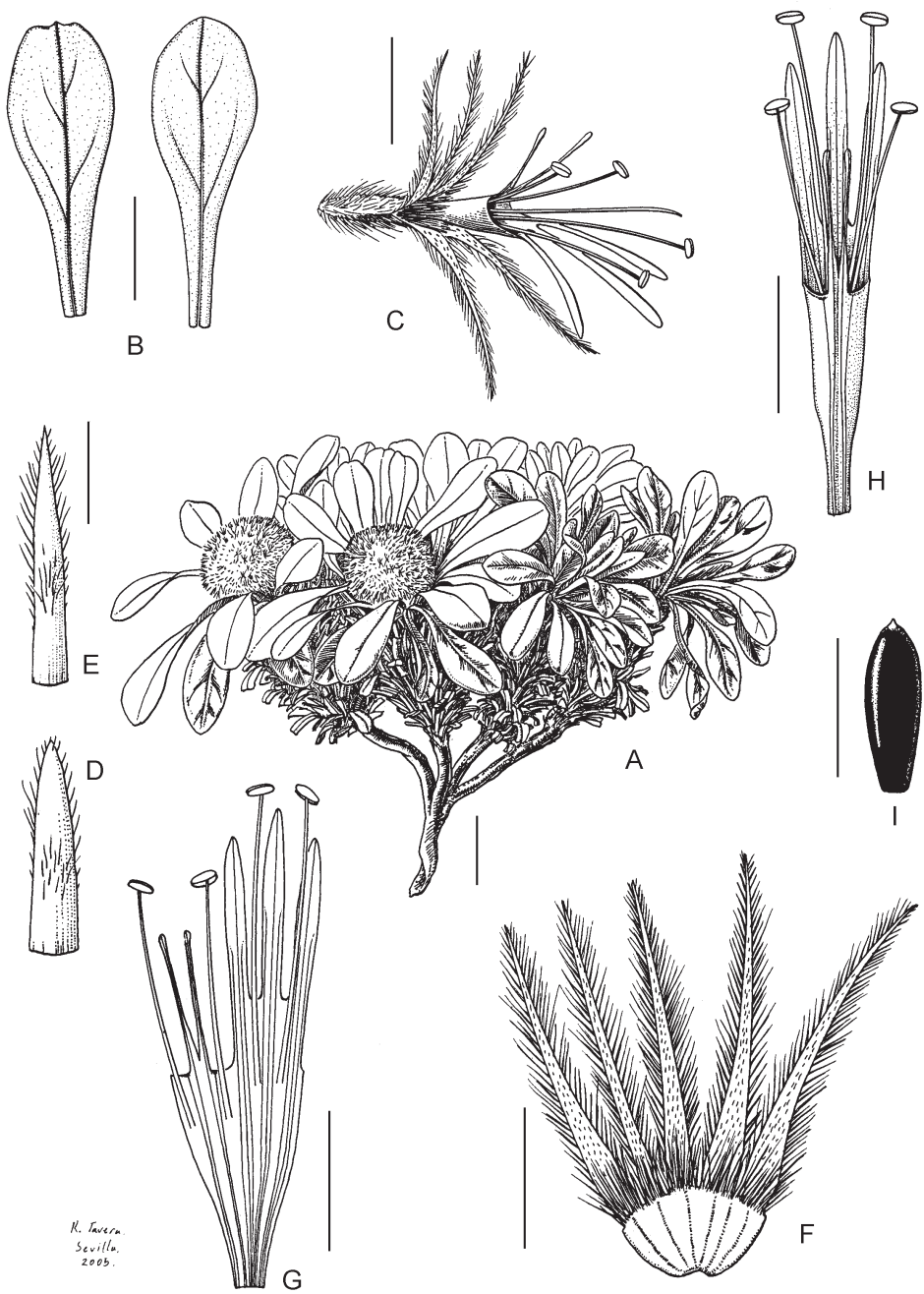

Fig. 1. *Globularia greuteri* – A: habit; B: leaves; C: flower; D-E: involucral bracts; F: calyx from inside; G-H: corolla; I: achene. – Scale bar: A = 1 cm; B = 6 mm; C-H = 2 mm; I = 1 mm.

Eponymy. – The species is dedicated to Prof. Werner Greuter on the occasion of his 68th birthday.

Flowering period. – July, August.

Distribution and habitat. – *Globularia greuteri* is endemic to the Talassemtane National Park, Province of Chefchaouèn, N Morocco. The species grows in calcareous rock crevices and stony places on Jebel Lakraa, at c. 2000 m, so far the only known locality for this species.

Additional specimens examined. – Morocco, Chefchaouèn, Jebel Lakraa, 1950-2100 m, 15.7. 1994, *A. Achhal, F. Bombardó & A. Romo R-6936/4* (BC, SEV 156612).

References

Jahandiez, E. & Maire, R. 1923: Plantae maroccanae novae. – Bull. Soc. Hist. Nat. Afrique N. **14:** 65-72.

Schwarz, O. 1938: Die Gattung *Globularia*. – Bot. Jahrb. Syst. **69:** 318-373.

Tutin, T. G. 1972: *Globularia* L. – Pp. 282-283 in: Tutin, T. G., Heywood, V. H., Burges, N. A., Moore, D. M., Valentine, D. H., Walters, S. M. & Webb, D. A. (ed.), Flora europaea **3.** – Cambridge, etc.

Addresses of the authors:
M. A. Mateos & B. Valdés, Departamento de Biología Vegetal y Ecología, Universidad de Sevilla, Apdo. Correos 1095, E-41080 Sevilla, Spain; e-mail: bvaldes@us.es