

Puccinellia caespitosa (Poaceae) a new species from Spain

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Abstract

MONTSERRAT, G. & J. M. MONTSERRAT (1987) *Puccinellia caespitosa* (Poaceae) a new species from Spain. Collect. Bot. (Barcelona) 17(1):79-82.

One new species from inland endorheic localities of Central Spain is described and illustrated. *Puccinellia caespitosa* is a diploid species and has smaller floral pieces than *P. stenophylla* which lives by the sea shore in S Spain and N Africa.

Keywords: Poaceae, *Puccinellia*, Taxonomy.

Resumen

MONTSERRAT, G. & J. M. MONTSERRAT (1987) *Puccinellia caespitosa* (Poaceae) una nueva especie española. Collect. Bot. (Barcelona) 17(1):79-82.

Se describe e ilustra una nueva especie del género *Puccinellia* de las lagunas endorreicas de la Mancha y Andalucía oriental. *P. caespitosa* se ha confundido con *P. stenophylla* de la que se puede distinguir por sus piezas florales menores y su hábitat.

Palabras clave: Poaceae, *Puccinellia*, taxonomía.

Glyceria tenuifolia Boiss. & Reuter, Pugill. pl. Afr. bor. Hisp. 127, 1852 was described from herbarium material collected by Fauché in Cádiz (Spain) and by Reuter in Oran (Algeria). Afterwards this species received different names under the genus *Glyceria*, *Atropis*, and *Puccinellia* but, at the present, the valid one is *Puccinellia stenophylla* Kerguelen, Lejeunia 75: 252, 1975 (= *P. festuciformis* subsp. *tenuifolia* (Boiss. & Reuter) W. E. Hughes, Bot. Journ. Linn. soc. 76: 364, 1978).

The species described by Boissier and Reuter has been interpreted in a very wide sense by botanists working on Spanish flora. Under this name two different taxa have been included: *P. stenophylla* and *P. caespitosa* G. & J. M. Monts. The former is located in the SW Iberian Peninsula by the sea shore and coasts of NW Africa, where it lives in salt marshes not directly under the influence of tides. Exceptionally, this species reaches Oran in the Mediterranean basin. Some of the Spanish populations have been studied caryologically and all of them have

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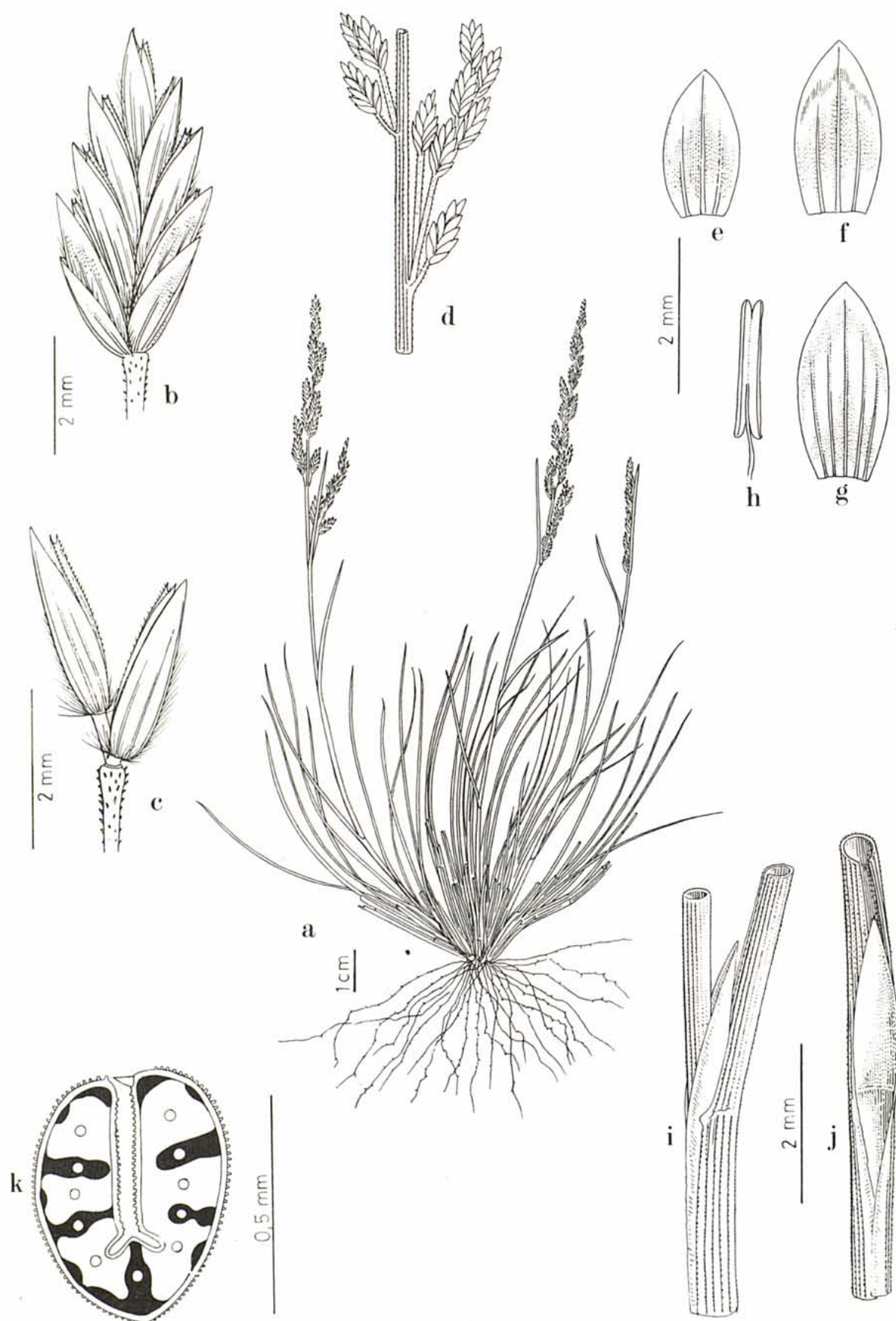


Fig. 1.— *Puccinellia caespitosa*. a) Habit. b) Spikelet. c) First two flowers. d) First node of inflorescence. e) Lower gluma. f) Upper gluma. g) Lemma. h) Stamen. i) Lateral view of ligula. j) Adaxial view. k) Transversal section of basal leaf.

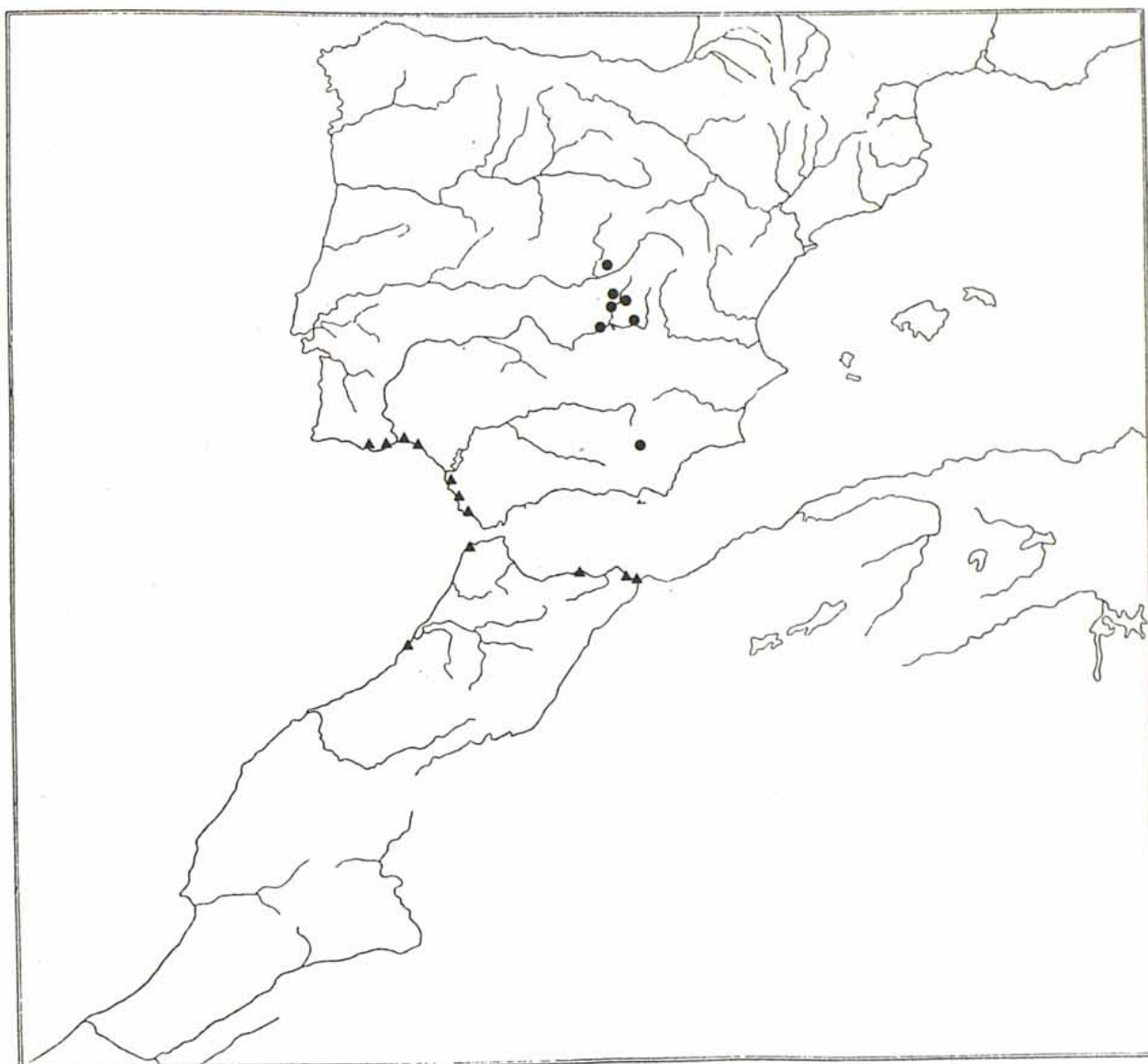


Fig. 2.— Distribution of studied localities of *P. stenophylla* and *P. caespitosa*.

presented $2n=70$ chromosomes (Julià & J. M. Montserrat, unpublished). Instead, all populations included till now under *P. stenophylla* and analyzed in Spain from samples taken in inland localities, have been diploid ones with $2n=14$ chromosomes (G. MONTSERRAT & J. M. MONTSERRAT, 1986, and Julià & J. M. Montserrat, unpublished).

This results led us to recognize two different taxa: *P. stenophylla* which is limited to the sea shore and *P. caespitosa* which is restricted to the salt marshes in peninsular inlands. The most useful systematic characters which allow to separate both taxa are shown on table 1.

TABLE 1

	<i>P. caespitosa</i>	<i>P. stenophylla</i>
Anthers (mm)	(1-)1,2-1,6(-1,8)	(1,5-)1,8-2,4
First lemma (mm)	2,2-2,8	(3-)3,3-4,2(-5)
Upper gluma (mm)	1,5-2,8	2,8-4
n. chromosomes	$2n=14$	$2n=70$

***Puccinellia caespitosa* G. Monts. & J. M. Monts., sp. nov.**

Herba perennis, caespitosa, erecta, 15-50 cm alta. Folia basilaria filiformia, papillosa, usque ad 15 cm longa, quam caules plerumque breviora; folia vero caulina 3-4, filiformia quoque, limbis 1-10 cm longis, ligulis autem longe triangularibus, acutis, 2-5 mm. Inflorescentia usque ad 14 cm longa, ramis scabridis papillosisque, sub anthesi erectopatentibus, postea vero aliquando contractis, inferioribus 1-3-verticillatis atque inferne (1/3-1/2) spiculis destitutis. Spiculae 3-9-florae, virides aut variegatae. Glumae obtusae vel subobtusae; gluma superior 2,5-2,8 longa, 3-nervata; inferior autem 1,2-2,2 mm, 1-3-nervata. Lemma floris inferioris 2,2-2,8 mm longum, tenuiter 5-nervatum, margine scariosum, dorso inferne pilosum, quoad nervia praesertim. Antherae (1-)1,2-1,6-(-1,8) mm longae. Caryopsis 1,3-1,4 mm longa. $2n=14$.

Holotypus asservatur in herbario JACA, sub numero 6497.86: Ciudad Real, Pedro Muñoz, laguna del Alcabo, ad 700 m. In salsuginosis prope lacunam, ubi J. M. Montserrat & G. Montserrat die 15-VII-1985 legerunt. Isotypi B, BC, G. Syntypi: BM, MA. Species colitur in viridiario nostri "Instituto Pirenaico de Ecología", ubi denuo exsiccavimus die 11-VI-1986 (JACA, G. Montserrat n° G-1510/86).

Puccinellia stenophylla hybridizes with *P. embergeri* Lindb. fil. (*P. convoluta* sensu auct. hisp.) which replaces *P. maritima* Hudson in SW Spain and NW Africa. *P. embergeri* lives in the littoral vegetation belt with *Spartina* sp. and *Arthrocnemum fruticosum* in places directly influenced by tides. Instead *P. caespitosa* is related with the *P. festuciformis* group and can be clearly individualized by size of floral pieces and the presence of papilles in foliar epidermis. Now it seems to us endemic of inland Central and South Spain.

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