

## **CARDUUS IBIZENSIS, A NEGLECTED SPECIES ENDEMIC TO THE WESTERN BALEARIC ISLANDS**

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**RESUMEN:** Se propone la nueva combinación *Carduus ibizensis* (Devesa) Rosselló & N. Torres para las poblaciones de Ibiza y Formentera previamente subordinadas a *C. bourgeanus* Boiss. & Reuter. La nueva especie se distingue de *C. bourgeanus* por su distinto número de cromosomas ( $2n=26$ ) y por diversos caracteres morfológicos.

**SUMMARY:** A new nomenclatural combination, *Carduus ibizensis* (Devesa) Rosselló & N. Torres, is proposed for the Western Balearic populations (Ibiza and Formentera) previously ascribed to *C. bourgeanus* Boiss. & Reuter. The new species can be discriminated from *C. bourgeanus* by its different chromosome number ( $2n=26$ ) and several morphological features.

*Carduus bourgeanus* Boiss. & Reuter is a thistle restricted to the Western Mediterranean basin, where it is known from the Iberian Peninsula and the Western Balearic Islands (DEVESA & TALAVERA 1981a). Populations from Ibiza and Formentera islands were first differentiated from those growing in the mainland by a combination of morphological features (plants more spinescent, leaves more glabrescent, midle bracts with scarios apex) not found elsewhere. This prompted the recognition of the Balearic plant as a new entity at the intraspecific level (*C. bourgeanus* subsp. *ibizensis*, DEVESA & TA-

LAVERA 1981b; *C. bourgeanus* var. *devesae*, BOLÒS & VIGO 1987). Karyological data obtained from two populations of *C. bourgeanus* from Ibiza (CASTRO & ROSSELLÓ 2005) showed individuals with  $2n=26$  as somatic chromosome number (Figure 1a). By contrast, all populations of *C. bourgeanus* from the Iberian Peninsula have shown diploid individuals with  $2n=18$  (DEVESA 1981). This implies a different basic chromosome number for the mainland and insular populations of *C. bourgeanus*. In addition, pollen stainability is high in the Ibiza samples of *C. bourgeanus* (Fig. 1b), sugges-

ting that the insular populations are not recent hybrid derivatives. The karyological data strongly suggest that, despite the slight morphological differentiation, the Balearic populations have a different evolutionary history from continental *C. bourgeanus*. Thus, we propose the specific status for the Western Balearic plant:

***Carduus ibizensis*** (Devesa & Talavera)

Roselló & N. Torres, comb. nov.

Basyon.: *Carduus bourgeanus* subsp. *ibizensis* Devesa & Talavera in *Lagasalia* 10: 61 (1981) ≡ *C. bourgeanus* var. *devesae* O. Bolòs & Vigo in *Collect. Bot. (Barcelona)* 17: 91 (1987)

Ind. loc.: “Camino de Cala Llonga (Ibiza), 14.V.1919, Font Quer”

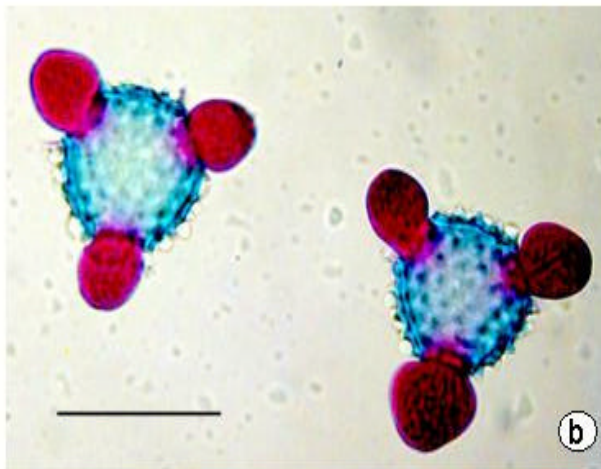
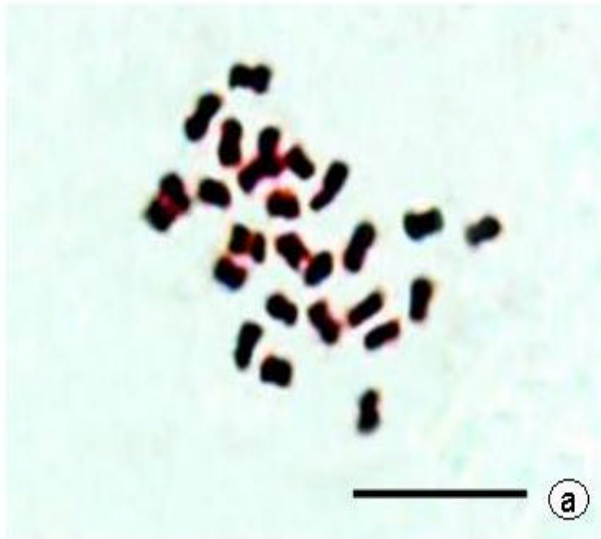
Type material: MA 131863 (holotype)

Remarks: ROMO (1994: 313) made the combination *C. bourgeanus* subsp. *ibizensis* (Devesa & Talavera) Romo, *Fl. Silvestres Balears*: 313 (1994) erroneously reporting the basionym as “*C. pterancanthus* subsp. *ibicensis* Devesa & Talavera in *Lagasalia* 10: 61 (1981)”. (Figure 2)

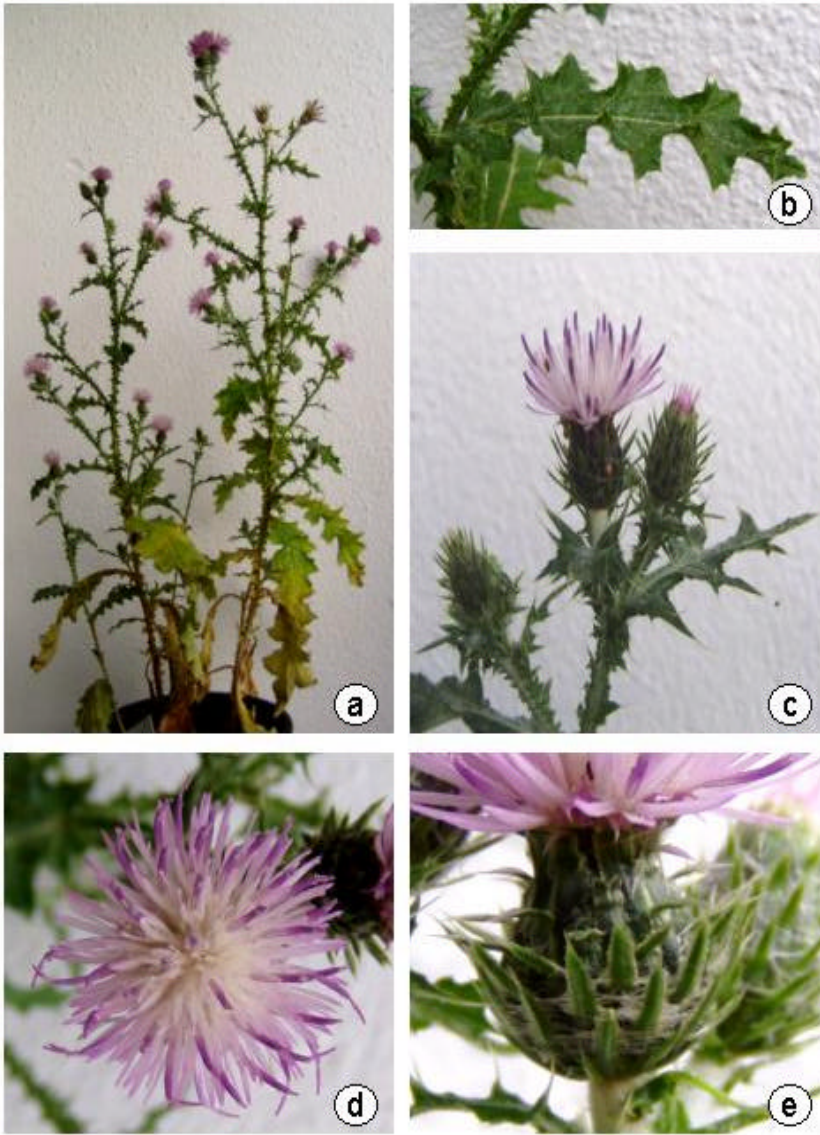
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**Figure 1:** A. Mitotic metaphase plate of *C. ibizensis* (Ibiza, Pla de Corona),  $2n = 26$ . Scale bar: 10  $\mu\text{m}$ . B. Pollen grains of *C. ibizensis* (Ibiza, Santa Gertrudis) stained with Alexander's stain. The cytoplasm is protruded. Scale bar: 50  $\mu\text{m}$ .



**Figure 2:** Morphological features of *C. ibizensis* (Ibiza, Santa Gertrudis) cultivated at the Botanical Garden of the Valencia University. A. Habit. B. Cauline leaf. C. Apex of a flowering stem. D. Capitulum. E. Involucre bracts.