

VALIDATION OF A SPECIES NAME IN *BISCUTELLA* (*BRASSICACEAE*) FROM EASTERN SPAIN

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ABSTRACT: The name *Biscutella marinae* is applied to an endemic plant from coastal sand-dune ecosystems of northern Alicante. It however was not published according to the *Melbourne Code*, and therefore it still remains nomenclaturally invalid. In the present contribution it is validated, and new data are reported that complete the available information on that endemic. **Key word:** *Biscutella*, Iberian Peninsula, Spain, Melbourne Code, nomenclature, taxonomy, vascular plants.

RESUMEN: *Validación de un nombre en Biscutella (Brassicaceae) del este de la Península Ibérica:* El nombre *Biscutella marinae* se aplica a un endemismo de los ecosistemas de dunas costeras del norte de Alicante. Sin embargo, su publicación inicial no se hizo conforme al *Código de Melbourne*, por lo que dicho nombre no es válido nomenclaturalmente. Por ello, aquí se valida y se aportan datos que completan la información existente sobre este endemismo. **Palabras clave:** *Biscutella*, Código de Melbourne, nomenclatura, Península Ibérica, España, plantas vasculares, taxonomía.

INTRODUCTION

The genus *Biscutella* L. includes about 50-70 taxa, widely distributed in Europe, northern Africa and the Middle East (cf. GUINEA & HEYWOOD, 1993; APPEL & AL-SHEHBAZ, 2003), though the highest diversity is found in the western Mediterranean basin.

The relative uniformity of most vegetative characters and the lack of reliability of those traditionally used for taxa differentiation result in much of the taxonomic confusion for which the genus is renowned (cf. MATEO & CRESPO, 2000).

Taxonomic work carried out in the last decades in the eastern Iberian Peninsula has revealed the existence of many endemic taxa with narrow distributions, which

were not recognised in recent comprehensive treatments of the Iberian taxa of *Biscutella* (cf. GRAU & KLINGENBERG, 1993). For the flora of the Valencian Region, 16 species and one additional subspecies have been accepted (cf. MATEO & CRESPO, 2014), of which 8 are exclusive to that territory.

One of these is *Biscutella marinae* M. B. Crespo, Mateo & Solanas, recently described (MATEO & CRESPO, 2008), which is endemic to the climbing sand-dunes of Serra Gelada, in Alicante.

In the course of a taxonomic research on *Biscutella*, connected with the forthcoming third volume of *Flora valentina* (cf. MATEO & *al.*, 2011-2013), we have found that the name *B. marinae* was not validly published in 2008. In the present contribu-

tion, that name is validated, and new data are reported that complete the available information on that Alicantine narrow endemic.

MATERIAL AND METHODS

Morphological data were taken from both living plants in wild populations and dried specimens in the herbarium ABH (acronym according to THIERS, 2015). Bioclimatic and biogeographic data follow RIVAS-MARTÍNEZ, 2007). Nomenclatural issues accord with the International Code of Nomenclature of algae, fungi and plants (ICN, *Melbourne Code*; McNEILL & al., 2012).

RESULTS AND DISCUSSION

Biscutella marinae M.B. Crespo, Mateo & Solanas, *sp. nov.*

- *B. marinae* M.B. Crespo, Mateo & Solanas in *Flora Montiber.* 40: 61 (2008), nom. inval.

HOLOTYPE: ESP, Alicante: Benidorm, Serra Gelada (Marina Baixa), 30SYH5570, 40 m. s.m., in declivibus arenosis maritimis, ubi die 7-IV-1994 legit J.L. Solanas s.n. (ABH 18556-1). Fig. 1.

DIAGNOSIS: *Species distinctissima ex Biscutellae ser. Laevigatae, quae cum B. montana et B. vicentina congruit. A priori differt siliculis valde majoribus (10-15 mm latis), foliis obovato-oblongis vel oblongis, profunde dentatis vel subpinnatifidis, et longiore petiolatis. A posteriore discrepat foliis magis albotomentosis, crassiusculis obtusisque, caulinaribus vix numerosis, bracteiformibus, petalis brevioribus (ad 5.5 mm long.) et siliculis minoribus.* [ex MATEO & CRESPO, 2008].

Biscutella marinae was first described by MATEO & CRESPO (2008) on the basis of plants collected northeastern Alicante province (eastern Iberian Peninsula). Unfortunately, two different gatherings were cited as type in the protologue of *B. marinae*: i) the specimen ABH 4907 (which was explicitly referred as ‘holotype’ in the text), and ii) the specimen ABH 18556 (which was annotated as ‘holotype’ in a

figure connected to the type citation). This fact makes that name not validly published according to Art. 40 of the ICN. Therefore, the specimen ABH 18556-1 (Fig. 1) is here selected as holotype of *B. marinae* to validate that name.

This species is a narrow endemic occurring in the Alicantine Chorological Subsector (Murcian-Almeriense Province), which is only found in the Pleistocene climbing coastal dunes facing the sea in Serra Gelada (also called Sierra Helada), near Benidorm and Altea (northeastern coast of Alicante province). This is a peculiar ecosystem that houses a unique flora and exclusive plant communities of thermomediterranean semiarid bioclimatic areas (cf. SOLANAS & CRESPO, 2001), not found in any other site in the eastern Iberian coast.

Plants from Serra Gelada were first related to *B. montana* Cav. (cf. SOLANAS & CRESPO, 2001: 140), a close species growing on limestone rocks in the mountains of northern Alicante and southern Valencia. However, they show a combination of characters which allow easy separation from that species and the rest of members of *B. sect. Laevigatae* Malin.

The most reliable characters allowing recognition, as already pointed out by MATEO & CRESPO (2008), are the large silicles (10-15 mm wide), the somewhat leathery and thickened leaves showing revolute margins and a long petiole (up to one third of the total leaf length); the leaf blade is oblong to obovate-oblong, subacute, and the margins are usually deeply toothed to subpinnatifid in the basal part, with obtuse lobes.

Morphological relationships to other relatives with large silicles, such as *B. vicentina* (Samp.) Rothm. ex Guinea, are weak and were already discussed by MATEO & CRESPO (2008). This latter species is native to the maritime dunes of southwestern Iberian Peninsula (from Algarve to Huelva Province), and differs by its larger

fruits (15-17 mm wide), longer petals (6-7 mm long), and the leafy stems bearing green subamplexicaul to amplexicaul leaves, with shallow acute teeth.

Other studied material of *B. marinae*:

Hs, ALICANTE: 30SYH5470, l'Alfàs del Pi, Serra Gelada, 25 m, 23-V-2003, en la duna, *A. Juan & al.* (ABH 46990). 30SYH5570, ibid., ibid., 30 m, 16-V-1992, a les dunes fòssils, *J. L. Solanas & al.* (ABH 4907). Ibid., 14-V-1993, *A. de la Torre & al.* (ABH 52825). Ibid., 25 m, 17-III-1996, *J.C. Cristóbal & al.* (ABH 16374). 30SYH5671, Benidorm, Sierra Helada, 50 m, 15-III-1992, sabulícola, *J.L. Solanas & al.* (ABH 0635). Ibid., 2-IV-1995, *J.C. Cristóbal & al.* (ABH 12869). 30SYJ5469, ibid. entre Isla Mitjana y Benidorm, 50 m, en la duna fòsil, 17-II-2002, *J.C. Cristóbal & al.* (ABH 49481). 30SYH57, Benidorm, Sierra Helada, 30 m, 15-IV-1992, *J. Jerez* (ABH 5941).

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Fig. 1: Holotypus de *Biscutella marinae* (ABH 18556-1).