



Epitype designation for the name *Biscutella didyma* L. (Brassicaceae)

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Abstract

The Linnaean name *Biscutella didyma* was lectotypified in 1964 by a specimen consisting of an incomplete fruiting stem of a plant lacking well developed leaves. This species name, together with its lectotype, was proposed as conserved type for the genus. The taxonomic identity of the lectotype is here shown to be demonstrably ambiguous in the context of *B. sect. Biscutella* (*B. ser. Lyratae*), and might be related to either *B. didyma* var. *didyma* or *B. didyma* var. *ciliata* (*B. didyma* subsp. *apula*). Therefore, in the case that infraspecific taxa are accepted within *B. didyma*, an epitype is designated to warrant further application of the latter name in the sense it is been used in the last decades.

Key words *Biscutella apula*, *Biscutella ciliata*, Cruciferae, Linnaean names, Mediterranean flora, nomenclature

Introduction

Biscutella didyma Linnaeus (1753: 653) is a widely distributed species in the central and eastern Mediterranean basin, spreading inland to Iran in the Middle East (Hedge & Rechinger 1968: 100). References to this species in the western Mediterranean correspond indeed to other related taxa of *B. sect. Biscutella*, such as *B. boetica* Boissier & Reuter in Boissier (1854: 42), *B. lyrata* Linnaeus (1771: 354) or *B. maritima* Tenore (1812: xxxviii, 1820: 77).

The name *B. didyma* was first published by Linnaeus (1753) for an annual plant growing in “Germania, Gallia, Italia”. However, he later included it in synonymy of *B. apula* Linnaeus (1771: 254), a name that he applied to an Italian plant and that is therefore illegitimate (Art. 52.1 of the *Melbourne Code*, ICN; McNeill *et al.* 2012).

Heywood (1964: 150) designated a specimen from the Clifford herbarium at BM as lectotype of *B. didyma*. That herbarium sheet includes an incomplete fruiting stem of a plant lacking well-developed leaves, and showing dense racemes of ripe silicles. It undoubtedly belongs to a taxon of *B. sect. Biscutella* (*B. ser. Lyratae* Malinowski 1911: 124) according to the fruit indumentum, and fits well the concept of *B. didyma* (*sensu lato*).

The application and circumscription of this name has been controversial. In earlier treatments of the genus, *B. didyma* was usually disregarded in favour of *B. apula* (i.e., Willdenow 1800, Candolle 1811, 1824). Although some authors (i.e., Cosson 1873, 1887, Nyman 1878, Battandier & Trabut 1888, Jahandiez & Maire 1932, Guinea 1964) had however accepted the priority of *B. didyma*, others still persisted in using *B. apula* (i.e., Caruel 1893, Rouy & Foucaud 1895, Machatschki-Laurich 1924) or some of their synonyms, such as *B. ciliata* Candolle (1811: 297) (i.e., Kőie & Rechinger 1954). Exceptionally, Malinowski (1911) treated *B. didyma* as a member of the *B. laevigata* Linnaeus (1771: 225) group.

Revisionary work by Raffaelli (1991) on the Italian taxa of *B. sect. Biscutella* (*B. ser. Lyratae*) has pointed out the existence of two main morphotypes within *B. didyma*, mostly based on the disposition of leaves. On the one hand, plants with most leaves arranged in a dense basal rosette, with stems bearing only a few smaller well-developed leaves below and bracteiform leaves above, were named *B. didyma* subsp. *didyma* or also treated as *B. d.* var. *didyma* by other authors. He designated one fragment in LINN n° 831.4 as ‘lectotype’ of *B. didyma*, thus neglecting previous typification by Heywood (1967). On the other, plants bearing well developed leaves on the stems, decreasing in size upwards, and becoming progressively bracteiform above, were recognised as *B. didyma* subsp. *apula* Nyman (1878: 59) or also treated as *B. d.* var. *ciliata* (DC.) Visiani (1850: 113). Furthermore, Raffaelli (1991) lectotypified *B. didyma* subsp. *apula* on another fragment of LINN n° 831.4, both morphotypes being hence based on different types. It is