

Epitypification of the name *Colchicum montanum* L. (Colchicaceae)

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Abstract The identity of the illustration previously selected as the lectotype of *Colchicum montanum* L. is shown to be demonstrably ambiguous. An epitype is designated that affixes the application of the name to the common “quitameriendas” that is widely distributed in the Iberian Peninsula.

Keywords Clusius; Linnaean names; *Merendera montana*; *Merendera pyrenaica*; nomenclature

■ INTRODUCTION

Colchicum montanum L. (\equiv *Merendera montana* (L.) Lange) is a common and widely distributed species in the Iberian Peninsula that also reaches the French Pyrenees (Rico, 2013). In Spanish it is called “quitameriendas”, a common name cited more than four centuries ago by Clusius (1576: 266), which is sometimes also applied to other species of *Colchicum* L., such as *C. autumnale* L.

The application of the name *Colchicum montanum* has been a matter of frequent discussion since the name was first validly published by Linnaeus (1753: 342). He likely never saw the plant in the field or herbarium and simply quoted a diagnosis prepared by Loeffling (i.e., Loeffling, 1758: 19, fide Persson, 2007: 202–205). This species is frequently included in the genus *Merendera* Ramond, within which several specific epithets have been applied to it, namely *M. montana* (L.) Lange, *M. bulbocodium* Ramond and *M. pyrenaica* (Pourn.) P.Fourn. A partial account of the complicated history of the name *C. montanum* and its application can be found in Burt (1981) and, a more recent and complete one, in Persson (2007: 202–205).

A careful reading of the works published by the numerous botanical authors who have discussed the history of the application of this name (e.g., Lapeyrouse, 1813: 202–203; Graells, 1859: 485–489; Rouy, 1906; Lacaita, 1925: 172–174; Valdés, 1978; Burt, 1981; Persson, 2007: 202–205) allows two main conclusions to be drawn. First, that there is some ambiguity in the protologue published by Linnaeus (1753). Namely, that Linnaeus described the plant with a diagnosis attributed to Loeffling, while also citing descriptions and a figure from Clusius (1576: 266, 1601: 200) in which “Hispania” was given as a statement of provenance. While this clearly indicates that Linnaeus was trying to characterize the Spanish “quitameriendas”, he also cited as a synonym, a phrase name from Bauhin (1623: 68) and added “Helvetia” as its provenance, referring to a plant that almost certainly corresponds with *Colchicum alpinum* DC. (Burt, 1981; Persson, 2007: 203). Second, it has been repeatedly shown (Lapeyrouse, 1813: 202–203; Graells, 1859:

485–489), that most French and Spanish botanical authors have used the name *C. montanum* (or synonyms of the name) for the plants described by Clusius (1576) from Salamanca and later seen by Loeffling in Extremadura and Castile in 1751 (Loeffling, 1758: 19). Thus, to preserve the traditional usage of the name *C. montanum* established in the literature it is necessary to select a type that would formally affix this name to the species observed by Loeffling and Clusius (Persson, 2007: 202–205).

■ PREVIOUS TYPIFICATION

The original material available for the typification of *Colchicum montanum* is listed by Jarvis (2007: 432). This list includes the specimen Herb. Linn. No. 470.2 deposited at LINN that Valdés (1978) treated as the type although, probably due to a typographical mistake, he erroneously listed it as LINN No. 472.2 (the latter sheet contains a specimen that can be identified as *Petiveria octandra* L., Phytolaccaceae—image available at <http://www.linnean-online.org/508/>).

Unfortunately, the material on Herb. Linn. No. 470.2 is not in accordance with the current usage of the name *Colchicum montanum* and for this reason Valdés (1980) adopted the name *Merendera pyrenaica* for the Spanish “quitameriendas” in *Flora Europaea*. It is thus fortunate that, as was noted by both Burt (1981) and Persson (2007: 204), this specimen cannot be considered original material, due to the fact that the sheet bears an annotation in Linnaeus’s handwriting indicating that the plants were collected in Greece. Recognizing that the material treated by Valdés (1978) was in fact not eligible to serve as a type of *C. montanum*, Burt (1981) considered that *M. montana* should be reinstated over *M. pyrenaica*, but did not select any alternative type. Later, after a careful revision of the nomenclatural history of *C. montanum* and thorough evaluation of all the material relevant for the typification of this name, Persson (2007: 204) decided to select the illustration in Clusius (1576: fig. on p. 267), cited in the protologue, as lectotype.

■ EPITYPIFICATION

There are two plants depicted in Clusius’s (1576) illustration. The individual in a vegetative state depicted in the lower part of the illustration may match current usage of the name *Colchicum montanum*, but this poor drawing of a single bulb and four leaves lacks detail and could easily represent any bulbous monocot with narrow leaves. The flowering specimen represented in the upper part of the plate shows a bulb and

two flowers. As already noted by Cambessèdes (1827: 321), the flowers depicted in Clusius (1576) neither correspond well to *C. montanum*, nor to any species belonging to the genus *Merendera*. Although the detail is poor, the tepals are represented as shortly fused at the base, whereas they are completely free in *C. montanum* and in all species of *Merendera*. Also, the illustration clearly shows a flower with a simple style surmounted by a short three branched stigma, while in *Merendera* the three styles are completely free. The short corolla



Fig. 1. Epitype of *Colchicum montanum* L.

tube would suggest that the drawing could represent either an autumn flowering species belonging to *Colchicum* s.str. or a species of *Crocus* L., but the species included in *Colchicum* s.str. have three absolutely free styles and those from *Crocus* are easily distinguishable from the individual depicted in Clusius (1576) by the type of bulb. The style and stigma represented in the relevant illustration could correspond with *Colchicum bulbocodium* Ker Gawl. (= *Bulbocodium vernum* L.), but this species has flower segments that are free to the base. Additionally, while in *C. montanum* the leaves arise directly from the bulb or from a short underground stem, the next plate in Clusius (1576: fig. on p. 268) corresponding to his “*Colchicum montanum*” represents a fruiting individual with a leaf inserted at the median part of the peduncle bearing the fruit, which further shows a lack of accuracy on the part of the illustrator.

While there is no doubt that Clusius’s intention was to represent the plant currently known as *Colchicum montanum* L., it is unclear that this plant is actually represented in the illustration. Evidence supporting Clusius’s intention to illustrate *C. montanum* as circumscribed by most later authors is that in the hills around the city of Salamanca there is no other autumn-flowering species called “quitameriendas”, “merendera” or “villorita”, the three common names mentioned by Clusius (1576). Further, the closest populations of *Crocus* or *Colchicum* s.str. are to be found approximately 50 km further to the south of this city and *C. bulbocodium*, perhaps the species resembling most closely the plant represented in the illustration selected as lectotype, grows in the Pyrenees approximately 450 km away from Salamanca.

No illustration other than Clusius’s figure is cited in the protologue. Also no additional relevant specimens whose selection as types would be non-disruptive could be traced in any of the other Linnaean herbaria (Persson, 2007: 202–205). Therefore, considering the demonstrated ambiguity of the selected lectotype, it is necessary to select an epitype (Art. 9.8 in McNeill & al., 2012) in order to enable the precise taxonomic interpretation of the name *Colchicum montanum* L. The material selected as epitype was collected near Salamanca and has been used to illustrate *Merendera montana* in *Flora iberica* (Rico, 2013). Fruiting specimens have also been collected and are deposited in three different herbaria (BM, MA No. 876028, SALA No. 144004).

***Colchicum montanum* L.**, Sp. Pl.: 342. 1753 = *Bulbocodium montanum* (L.) Heynh., Alph. Aufz. Gew.: 81. 1846, non Fisch. 1812 = *Merendera montana* (L.) Lange in Willkomm & Lange, Prodr. Fl. Hispan. 1: 193. 1862 – Lectotype (designated by Persson in Bot. Jahrb. Syst. 127: 204. 2007): [illustration in] Clusius, Rar. Stirp. Hispan. Hist., fig. on p. 267. 1576 – **Epitype (designated here)**: España, Salamanca, Valdelosa, Nava Ancha, 30TUL677598, 800 m, 13 Nov 2011, E. Rico 8070 (SALA No. 142393!; isoeotypes: BM!, MA No. 876027!)

For the epitype, see Fig. 1; an image of the lectotype is available at <http://bibdigital.rjb.csic.es/ing/Libro.php?Libro=6098&Pagina=267>

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