



Allium moly subsp. *glaucescens* (Asparagaceae), a new subspecies from the Iberian Peninsula

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Abstract

Allium moly subsp. *glaucescens* is described as a new subspecies from the Iberian Peninsula. Different morphological characters from populations located in Valencia (Spain) are evidenced. Lower size of plants, smaller and narrower leaves, of noticeably bluish-green color (glaucous-pruinose), smaller and less flowers in the umbel-inflorescence are characteristic of the new subspecies. Ecology, habitat, cultivation and chemotaxonomy have also been considered and discussed in this work.

Key words: Alliioideae, phenolic compounds, Spain, taxonomy

Introduction

The genus *Allium* Linnaeus (1753: 294) (Asparagaceae) includes more than 900 species, mainly distributed in the temperate climate area of the Northern Hemisphere but may also be present in the South of America and the Tropical Africa (Wilde-Duyfjes 1977, Stearn 1978, 1980). In the Iberian Peninsula, up to 42 taxa have been recognized (Pastor & Valdés 1983, Aedo 2013).

Allium moly Linnaeus (1753: 301) belongs to sect. *Molyum* (G. Don ex Schrank & Martens 1829: 29) Schult. & Schult. f. in Roemer & Schultes (1830: 1090), and is widely spread in the West of the Mediterranean basin, from the South of France, where is rarely found (Danton & Baffray 1995), to the South of Spain (Fig. 1). This species is present in the Pyrenees, in the High Ebro River Valley, in the Iberian System and in the Betic mountains (Gamarra & Fernández Casas 1989, Pastor 2009). Some works stated the presence of *Allium moly* in the North of Africa (Maire & Quezel 1958) likely from collections of Carlos Pau (MA) and Font Quer (BC808238). However, according to Wilde-Duyfjes (1977), Pastor (1996) and Aedo (2013) these determinations may be erroneous. These authors indicated that these African references correspond to *Allium scorzonifolium* Desf. ex DC. in Redouté (1804: 73) (Ibn-Tattou & Jalal El-Oualidi, pers. comm.). In general, the variability of *A. moly* affects mainly the plant size and the width of the leaves (from 0.5 cm to 3.5 cm). Bulbils may appear in the inflorescence but this is not a common character.

According to Rouy (1910) the specimens with the flowers fully or partially substituted by bulbils may be considered at variety level [*Allium moly* var. *bulbilliferum* Rouy & Foucaud in Rouy (1910: 373)]. This character appears sporadically in the species (i.e. BC62275) as may appear other morphological differences.

Several herbarium sheets from Hoz de Beteta (Cuenca) contain specimens of *A. moly* with small size, three flowers per inflorescence and narrow leaves (Aedo 2013). After the study of this material (i.e. MA595534!, MA21049!, MA21046!, VAL169502!, and VAL92513!) an expedition was carried out to this area. This study reveals the differences among the populations occurring in this area and those referring to *A. moly* s.s. These differences lead us to propose a new subspecies, subsp. *glaucescens*. Aspects of the ecology, habit, cultivation and chemotaxonomy have been considered and discussed in this paper.

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APPENDIX 1. Specimens examined of *Allium moly* subsp. *moly*.

Allium moly subsp. *moly*:—SPAIN. Álava. Acebedo, 30TVN8750, 780 m, 20 June 1985, *G. Morante s.n.* (BC673009!); Tobillas, 30TVN84, 800 m, 14 June 1985, *P.M. Uribe-Echebarría s.n.* (VAL96811!); Albacete. Riopar, Sierra de Alcaraz, nacimiento del río Mundo, 30SWH4958, 1000 m, Aragón, *Herrero & Martínez s.n.* (MA644762!); Riopar, Cueva de Los Chorros, 28 June 1988, *Aparicio, García & Silvestre s.n.* (MA490694!); Sierra de Alcaraz, pista de vianos a Zapateros, WH46, 1100 m, 13 June 1986, *Bayón, Galán & Nieto Feliner s.n.* (MA433096!); Sierra Alcaraz, La Molata, 27 June 1923, *Cuatrecasas s.n.* (MA21056!); Sierra de Alcaraz, 1700 m, 14 July 1923, *Cuatrecasas s.n.* (MA21043!); Burgos. Medina de Pomar, entre Quincoces de Yuso y Relloso, 30TVN8062, 700 m, 26 May 1990, *S. Patino, P.M. Uribe-Echebarría & J. Valencia s.n.* (BC808432!); Quincoces de Yuso, 30TVN8062, 700 m, *L. Marín s.n.* (VAL96919); Ciudad Real. El Vallejo, 22 June 1934, *G. Albo*, (MA21045!); Los Chorros, 20 July 1934, *G. Albo s.n.* (MA21041); Córdoba. El Tejar, 30SUG6423, 400 m, 18 March 1985, *M. Luceño s.n.* (MA433075!); Cuenca. Beteta, valle del Tajo, pr. puente de Martinete, 30TWK8895, 1140 m, 27 May 1995, *Mateo, Marín, Mercadal & Pisco (9958-GM)*, (VAL92513!); Beteta, Finca de Belvalle, 30TWK9191, 1200 m, 18 July 1997, *L. M. Ferrero & O. Montouto s.n.* (MA595534!); Beteta, Hos de Beteta, 16 June 1935, *A. Caballero s.n.* (MA21049!); Beteta, Pinar de Beteta, 8 July 1932, *A. Caballero s.n.* (MA21046!); Beteta, Hoz de Beteta, 1150 m, 7 July 1984, *G. Mateo s.n.* (VAL169502!);