



## Typification of two names belonging to the Cistaceae family: *Fumana arabica* and *Helianthemum oelandicum* subsp. *italicum*

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### Abstract

The typification of two Linnaean names: *Cistus arabicus* (≡ *Fumana arabica*) and *C. italicus* (≡ *Helianthemum oelandicum* subsp. *italicum*) is discussed. The designation of the nomenclatural types is based on an assessment of Linnaeus's original material. The name *C. arabicus* is lectotypified using a specimen from Hasselquist's material at LINN, and *C. italicus* using Linnaeus's single original specimen preserved in the same herbarium.

**Keywords:** *Cistus arabicus*, *Cistus italicus*, lectotype, Linnaeus, nomenclature

### Introduction

The family Cistaceae comprises 8 genera: *Cistus* Linnaeus (1753: 523), *Crocanthemum* Spach (1836: 370), *Fumana* Spach (1836: 359), *Halimium* (Dunal 1824: 267) Spach (1836: 365), *Helianthemum* Miller (1754: without page), *Hudsonia* Linnaeus (1767a: 323, 327; 1767b: 11, 74), *Lechea* Linnaeus (1753: 90), *Tuberaria* (Dunal 1824: 270) Spach (1836: 364), and about 180 species distributed in the temperate and subtropical regions of the northern hemisphere.

The genus *Fumana* is one of the most diverse and least studied genera of the Cistaceae family with 21 recognized species with high morphological diversity (Arrington & Kubitzki 2003). Linnaeus described the species *Cistus arabicus* Linnaeus (1755: 14) currently ascribed to the genus *Fumana*; *F. arabica* (L.) Spach (1836: 359). This species is a herbaceous perennial plant, with prostrate or ascending stems which grow to 30 cm high, leaves are alternate, oblong-elliptic to oblong-lanceolate, hairless or glandular pubescent, with the stipules short, inflorescence lax, 2–6 flowered, with yellow petals, and the capsule 8–12-seeded.

The genus *Helianthemum* constitutes a well-supported monophyletic group (Guzmán & Vargas 2009), that includes about 110 taxa of small herbs or subshrubs (at species and subspecies level) distributed in Macaronesia, N Africa, Europe, W and C Asia, with the higher diversity concentrated in the western Mediterranean (Greuter *et al.* 1984; López González 1993; Arrington & Kubitzki 2003; Parejo-Farnés *et al.* 2013). The genus *Helianthemum* is taxonomically very complex, and some names have already been typified in many cases (López González 1992). Some taxa were first described by Linnaeus in *Cistus* but currently included in *Helianthemum* (see Burt & Lewis 1949; Jafri 1977; López González 1992). One of this species is *Cistus italicus* Linnaeus (1759: 1078) [= *Helianthemum oelandicum* subsp. *italicum* (L.) Ces. in Cattaneo (1844: 288)].

*Helianthemum oelandicum* comprises a variety of morphs that show complex variation in both indumentums and flowering phenology (Widén 1980, 1986). Proctor & Heywood (1968) divides the species into five subspecies. The subspecies *italicum* is restricted to lowland and mountain habitats in southern Europe (Italy, Spain and France).

Continuing our nomenclatural study of Linnaeus's names in *Cistus* (Ferrer-Gallego & Laguna 2012; Ferrer-Gallego *et al.* 2013a, b), this paper proposes the designation of lectotypes for the names *Cistus arabicus* (≡ *Fumana arabica*) and *Cistus italicus* (≡ *Helianthemum oelandicum* subsp. *italicum*). The designation of the lectotypes is based on the protologues and consultation of Linnaeus's original material preserved at LINN (Herbarium of the Linnean Society of London).