



Helianthemum (sect. *Helianthemum*) *raskebdanae* (Cistaceae), a new species from northeastern Morocco

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Abstract

A new species, *Helianthemum raskebdanae* (*H.* sect. *Helianthemum*), is described from the maritime cliffs of north-eastern Morocco. It is easy to identify because of its glabrous and fleshy leaves with swollen reddish pulvinules at the petiole base, glabrous sepals with only minute stellate hairs on one margin, and large pinkish to purple petals. The new species is only known from three small, isolated sites, and it is here considered as Endangered (EN). Although it superficially resembles the Algerian *H. maritimum*, its combination of character-states is not found in the latter nor in any other related species of the section, i.e. *H. apenninum*, *H. dianicum*, *H. scopulicola* and *H. virgatum*, which warrants its recognition at the species rank. Micromorphological data support the proposed taxonomic treatment. Furthermore, nomenclatural types are designated for *H. maritimum* and *H. maritimum* f. *albiflorum*, two close Algerian relatives.

Key words: Mediterranean endemics, taxonomy, typification

Introduction

Helianthemum Miller (1754: without page) is one of the most diverse genera in the Cistaceae, in which over 80 species of small herbs or subshrubs have been described (Arrington & Kubitzki 2003). Taxa in this genus occur on different types of substrates (e.g., sand, gypsum, limestone, schistose, or even salty soils), at elevations ranging from sea level to over 3000 m.

Helianthemum is a monophyletic group (Guzmán & Vargas 2009) with a Palaeoboreal distribution, from Macaronesia through Europe and the Mediterranean basin to Central Asia (Arrington & Kubitzki 2003). Its main diversification center is found in the Mediterranean basin, with over 110 taxa (Greuter *et al.* 1984), many of which are narrow endemics, especially to the Iberian Peninsula and northern Africa (Grosser 1903, Guinea 1954, López González 1992, 1993). It is currently accepted to be represented by at least 32 species in Morocco (Jahandiez & Maire 1932, Raynaud 1999) and 30 species in Algeria (Quézel & Santa 1963). Three taxa are Moroccan endemics (Rankou *et al.* 2013) and four are restricted to Algeria (Quézel & Santa 1963), the rest being also present in the neighbouring countries of northern Africa and/or the Iberian Peninsula and Italy, or have a still wider distribution.

In the course of fieldwork carried out in northeastern Morocco, three isolated subpopulations of a conspicuous pink-flowered species of *Helianthemum* were found on maritime cliffs near Ras-el-Ma (between Nador and Saidia). They undoubtedly belong to *H.* sect. *Helianthemum* on account of their opposite stipulate leaves, racemose inflorescences, strongly ribbed calyx, showy coloured petals, and geniculate style exceeding the stamens (López-González 1993). However, the peculiar features of both leaf and calyx indumentum, as well as the petiole, stipules, fruits and seeds clearly separate them from the five known Moroccan taxa in that section (Jahandiez & Maire 1932; Soriano 2002).

The taxonomical and nomenclatural complexity in this section is well-known by taxonomists. Species delimitation is a matter of controversy among treatments, due to the apparent unreliability and/or intrapopulation variability of morphological characters traditionally used for species delimitation (López González 1993). Consequently, broad (and hence heterogeneous) species concepts were usually adopted in taxonomic treatments, which perhaps created more