



Two new species of *Campanula* (Campanulaceae) from the island of Santo Antão, Cabo Verde archipelago

MATHIEU L. GARDÈRE

637, Chemin de la Fontaine des Cinq Sous, Quartier Ganèou, 83330 Le Beausset, France;

email: mathieu.gardere@hotmail.fr

Abstract

Two new species *Campanula feijoana* and *Campanula hortelensis*, long identified as *C. jacobaea*, are described and illustrated. The new species are endemic to the island of Santo Antão (Cabo Verde archipelago) and morphologically close to *C. jacobaea*, but are distinguishable by their unique floral characteristics. Some of these distinguishing features are shared between *C. feijoana* and *C. hortelensis*, i.e. narrow triangular sepals, and a tubular corolla constricted around the middle part with explanate or revolute lobes.

Abstract (Portuguese)

Duas novas espécies *Campanula feijoana* e *Campanula hortelensis*, há muito tempo identificadas como *Campanula jacobaea*, são descritas e ilustradas. As duas novas espécies são endêmicas da ilha de Santo Antão (arquipélago de Cabo Verde) e são morfologicamente próximas de *C. jacobaea*, distinguindo-se todavia pelas suas características florais únicas. Alguns destes caracteres distintivos são compartilhados por *C. feijoana* e *C. hortelensis*, entre eles sépalas triangulares e uma corola tubular constrita na parte média, com lobos espalhados ou revolutos.

Key words: Campanulaceae, *Campanula*, Santo Antão, Cabo Verde, new species

Introduction

In the Cabo Verde archipelago, the Campanulaceae Juss. (1789: 163) family is currently represented by three species (Chevalier 1935, Brochmann *et al.* 1997, Sánchez-Pinto *et al.* 2005): two endemic, *Campanula jacobaea* C.Sm. ex Webb (1848: tab. 762) and *C. bravensis* (Bolle) A.Chev. (1934: 889) of the section *Campanula* s.l. (Mansion *et al.* 2012: table S2) and one Macaronesian indigenous species, *Wahlenbergia lobelioides* (L.f.) Link (1829: 632). The first known collection of *Campanula* L. (1753: 163) on the island of Santo Antão dates back to the 19th century, by J. Forbes in 1822. This specimen is one of the syntypes of *C. jacobaea* cited in the protologue (Webb 1848). In 1851, J.A. Schmidt visited the archipelago, also collecting herbarium specimens from the island. This voyage resulted in the first complete study on Cabo Verdean flora (Schmidt 1852), including a note making a first distinction between the *Campanula* species of Santo Antão and those of the island of São Vicente.

Founded on field observations and collections made since 2009 across the entire Cabo Verde archipelago, two new species long determined as *Campanula jacobaea* are described and illustrated below: *Campanula feijoana* Gardère and *Campanula hortelensis* Gardère. Morphological analysis reveals that the flowers of the two new species are clearly distinct from those of *C. jacobaea*, as well as each other. This difference is reflected in features of both the flowers and leaves. These two new species are endemic to the island of Santo Antão located in the Northwest of the archipelago, but have different distributions: *C. feijoana* at lower elevations and *C. hortelensis* is found in the mountains. Under the assumption that these morphological and ecological differences are an indication of reproductive isolation, these plants are described here as new species under the biological species concept (Mayr 2000).

In this study, *C. jacobaea* is considered endemic to Santiago (southern island) as well as São Vicente and São

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