

EXISTENCE OF VERBASCUM LEVANTICUM I. K. FERGUSON IN PORTUGAL

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Abstract

The species *Verbascum levanticum* I. K. Ferguson was introduced as an ornamental in the Botanical Garden of Coimbra, in the 19th century. It became naturalized over restricted areas in the centre of Portugal, colonizing walls, rock fissures and dry land. Later this century, the species has been mentioned as extinct from the portuguese territory. However, during the past two years, we have found it growing quite vigorously on some walls in Coimbra. The existence of the species is discussed.

Introduction

Verbascum levanticum I. K. Ferguson (FERGUSON, 1971) is an alien species introduced in the Botanical Garden of Coimbra that became naturalised over restricted areas, in the centre of Portugal.

This species, native to Turkey, Israel, Lebanon and Cyprus and characteristic of the East Mediterranean (DAVIS, 1976), was introduced in Portugal in 1874 (INDEX SEMINARIUM, 1874) and it has been cultivated in the Botanical Garden of Coimbra ever since.

The species was first mentioned for Portugal, as subsponaneous in 1907, being established its distribution in Portugal in Coimbra and Moita (MARIZ, J. de, 1907). Later, Pereira Coutinho mentioned this species, also as subsponaneous, colonising walls, rock fissures and dry lands (COUTINHO, 1939). In *Flora Europaea*, the species is referred to as naturalised in the Centre of Portugal (TUTIN, & al, 1972). Finally, Franco (1974) also mentions the species but he suggests its extinction in the Portuguese territory.

However, this species has been offered, almost every year, on the Index Seminum, of Coimbra Botanical Institute, being normally collected as subsponaneous, in "Cerca de São Bento", meaning inside the premises of the Botanical Garden.

This past two years, this species has been detected growing vigorously on the original site, on the walls of the aqueduct S. Sebastião, close to the Botanical Garden from where it escaped. It was also found growing vigorously on some garden walls in Castro Matoso St, further down in town.

No reports on the growth of the species have been made recently for Moita, the second area of distribution mentioned by J. de Mariz.

Description of *Verbascum levanticum* I. K. Ferguson

Verbascum levanticum I. K. Ferguson, *Bot. Jour. Linn. Soc.* 64: 229 (1971).

Celsia horizontalis auct., non Moench (1794)

Celsia glandulosa Bouché in *Verh. Ges. Nat. Fr. Berlin* 1: 395 (1828)

Verbascum glandulosum (Bouché) O. Kuntze, *Rev. Gen. Pl.* 2: 469 (1891), non Delile (1849)

Annual or biennial, with herbaceous stock. Long, multicellular and glandular hairs and short, stalked glands throughout. Leaves 8-25 x 5-11 cm, lyrate-pennatifid, with broadly ovate, crenate-dentate terminal lobe and 2-4 pair ovate, small, lateral lobes, dentate; caulinar opposite, upper undivided. Inflorescence dense, many-flowered. Bracts triangular-ovate, dentate, lower leaf-like. Pedicels long, patent, ebracteolate, 10-20 mm long. Calyx 4 mm, acutish, with unequal oblong spatulate lobes. Corolla yellow, 25-30 mm diam. Filament hair's purple-violet, 2 anterior anthers decurrent on to filament. Capsule globose, small, sparsely glandular or glabrous.

Flowering time. March - May

Habitat. Limestone rocks, buildings, monuments.

Discussion

Verbascum levanticum may not be stated as a well-established member of the Portuguese flora for its scarce distribution, but its presence in the territory, in the present days, must be emphasised.

Although the ecological niche of this species being very restrict there are normally other species of *Verbascum* growing nearby, and on a general view they may be confused. Mainly the species *Verbascum sinuatum* L. is quite often seen growing on limestone walls in the center of Portugal. Perhaps this is the reason of the presence of *Verbascum levanticum* being overlooked on other sites.

Verbascum levanticum was first reported on the aqueduct of S. Sebastião, an old monument, not very well preserved, built with limestone. Inside the walls of the Botanical Garden, better preserved and younger, it has been seen growing wild always both on wall fissures or in cavities at the intersection of the walls and the ground.

In modern garden walls, in Castro Matoso street (50 to 200 meters from the Botanical Garden), the species has also been seen growing wild. These walls are very well preserved, being recently restaured.

Thus, not only deteriorated old walls built with limestone and mortar, but also modern walls built with tiles and cement are colonized by *Verbascum levanticum*.

The species was seen growing exposed to the South, only on vertical walls or between the walls and the ground.

The exposure to the South indicates the preference of the species for hotter spots thus it can be classified as a thermophilous species. Being an east Mediterranean species, this characteristic was to be expected because it is originary from a hot and dry area.

The colonisation of walls seems to be characteristic of this species, for no growth has been detected in other types of habitat. As some other exotic species imported into Europe, such as *Ailanthus altissima* (Miller) Swingle (ALMEIDA & al., 1994) and *Erigeron karvinskianus* DC. (HRUSKA, 1985), the *Verbascum levanticum* ran away from cultivation to become a typical wall invader.

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