

# A plant believed to be endemic to Morocco appears in Spain for the first time

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*Polygala webbiana*.

*Polygala webbiana* is a species which was thought to be exclusive to North Africa. However, researchers from the Real Jardín Botánico (Royal Botanic Gardens of Madrid), and the Alcalá and Coimbra Universities have discovered specimens of this plant in Andalucía.

*Polygala webbiana* (*Polygala webbiana* Coss.) is a shrub with pink flowers and branches covered with hairs (trichomes), which was believed to be endemic to Morocco. Scientists from the Real Jardín Botánico (CSIC), the Alcalá University and the Coimbra University (Portugal) have now confirmed their presence in Malaga, in a study published in the *Nordic Journal of Botany*.

"At present only the population we found is known in Spain," Stijn Hantson, co-author of the work and researcher at the Alcalá University, tells SINC.

The scientists found specimens of this rare species in Malaga in April and May 2012, during a harvesting campaign forming part of the Real Jardín Botánico's Flora iberica (Iberian Flora) project.

Those responsible for the discovery wonder whether it is a recent arrival from Africa or "a gem which evaded previous [botanists](#)".

The fact that it is not "humble and elusive to the eyes of enthusiasts and experts," as Calvo states, raises doubts as to whether this species has really only recently settled in the Peninsula, or whether it merely had not been found by other explorers.

In April, the pink flowers of this perennial plant cover certain limestone walls in the Alcaparaín Mountains (Penibetic mountain range, province of Malaga), which, according to the Real Jardín Botánico researcher, "reveals that there are still relatively unexplored parts of the Spanish territory."

## **Protecting rare species**

The authors highlight the importance of establishing protection measures for this type of [rare species](#). "*Polygala webbiana* is a new example of the

richness of plants living in mountains of Malaga and of the need to conserve them," Calvo concludes.

New research in the area and nearby mountains enables the estimation of the number of individuals and the possibility of finding other populations.

The researchers carried out a thorough analysis of the plant's habitat and the morphology of both its flowers and its fruit and the rest of its characteristics. Furthermore, the samples collected in 2012 have been preserved in the appropriate conditions in the Real Jardín Botánico herbarium in order to continue their study.

"Since previous records did not include any description of the seeds and the images of these in the book *Illustrationes florae Atlanticae* (Cosson 1882-1890) are wrong, we have carried out a characterization using an advanced electron microscopy technique," the experts add. In this way, they were able to observe and document the peculiar 'hairs' that covered them.

## **A very widespread genus**

The genus *Polygala* is characterised by its high morphological variability and its presence in diverse types of habitat, chiefly subtropical and tropical.

This group includes around 725 species and a dozen subgenera, recognized in 1998 by Jorge Paiva, one of the authors of the study and researcher at the Coimbra University.

Until now only three [species](#) of the subgenera to which *Polygala webbiana* belongs had been identified in Europe, of which two are also present in the Peninsula: *P. chamaebuxus* (found in the Alps and Central

Western Europe), *P. vayredae* (endemic to La Garrotxa, Catalonia) and *P. balansae* (native to Morocco and recently found in the province of Granada).

**More information:** Calvo, J., Hantson, S. and Paiva, J. *Polygala webbiana* (Polygalaceae), the first record for Europe and a synopsis of *Polygala* subgen. *Chamaebuxus*, *Nordic Journal of Botany*, septiembre de 2013. [DOI: 10.1111/j.1756-1051.2013.01784.x](https://doi.org/10.1111/j.1756-1051.2013.01784.x)

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