

# Ex-situ and in-situ actions to recover species of the Catalogue of Threatened Plants in the Valencian Community (Spain)

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## INTRODUCTION

Wildlife Service and Natura 2000 Network is the competent unit for the conservation and recovery of wild species and natural habitats. This communication analyses the results obtained after 30 years of accumulated experience (1992-2021) from 76 species (60 terrestrial and 16 aquatic ones), out of 85 taxa which compound the Valencian Catalogue of Threatened Plant Species. This Catalogue lists the most endangered Valencian species, classified in two categories; In Danger of Extinction, and Vulnerable -although its name include species much more endangered than those of the IUCN's homonym category-

As a part of the main work of the Wildlife Service (Servicio de Vida Silvestre y Red Natura 2000) in the Valencian Community, developed through the Centre for Forestry Research and Experimentation (CIEF) and the Centre for Conservation of Freshwater Species (CCEDCV), a large list of threatened plant species has been object of *ex situ* programs including actions as plant production and further use for conservation translocations since the decade of 1990.

These actions are development in collaboration with the Territorial Services of each province, including technicians and brigades of Red Natura 2000. It is important to highlight the coordination with the Protected Natural Areas Management Service and with the Environmental Agents, as well as with other external entities (NGOs, foundations, associations, town halls, etc.) that support endangered flora restitution activities, as well as other *ex situ* conservation actions.



## MATERIAL AND METHODS

Based on the knowledge of wild populations, the availability of conserved seeds in the germplasm bank and the capacity to produce plants, first translocations were performed in the natural environment, as well as works to restore habitats.

Propagation and cultivation protocols described in the Manual for the conservation of germplasm and the cultivation of threatened Valencian flora have been followed.

Regarding translocations, guide of translocations published by the IUCN and the Ministry for Ecological Transition and the Demographic Challenge have been followed. The first record of translocations date from the early 90s of the last century, at which time it was already known that some species had few populations and few specimens.



## RESULTS AND CONCLUSIONS

Currently 61 translocations (47 of terrestrial flora and 14 of aquatic flora) are classified as new populations and have become part of the "Valencian Endangered Flora Monitoring Program".

### Actions have been focused to recover:

**25 species** in the category "Endangered" (18 of terrestrial flora and 7 of aquatic flora) and **32 species** cataloged as "Vulnerable" (19 of terrestrial flora and 13 of aquatic flora)

### Have been generated:

**580 populations** from translocations, 375 for terrestrial flora and 205 for aquatic flora.

### Actions have been collected and preserved:

**1034 lots** of seeds of species included in these two categories (1001 lots of 60 species of terrestrial flora and 133 lots of 16 species of aquatic flora)

### and produced:

**104.606 specimens** (63.891 of terrestrial flora and 40.715 of aquatic flora).



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