

## **ABSTRACT**

The present study, is focused in the search of the optimal conditions of germination of the iberic endemism *Omphalodes brassicifolia* Lag. (Sweet.), which is a plant of the family of Boraginaceae distributed exclusively by the north of Cáceres and in the south of Salamanca. The specie appears in the decree 63/2007 of the normative of Castilla y León with the category of “in danger of extinction” and with the category of “endangered” in The Red List of the Spanish Flora and it has several threat factors related with the habitat in which is set. Owing to its endemic nature and its conservation condition, it has been proceeded to develop a protocol of germination in order to collect and dispose of as much information about the optimal germination conditions of the specie that can be. The used seeds were collected from four populations from the town of Aldeacipreste (Salamanca) and Arroyomolinos de la Vera (Cáceres). Three diferent environments (10/15°C in 12h light/12h darkness, 10/15°C in a constant darkness and 4°C in a constant darkness) and two treatments (giberelic acid in a concentration of 500 ppm and nitrate potassium in a concentration of 0.2%) have been tested together with blank copies. It have been calculatted the values of the percentage of germination, the germination speed ( $T_{50}$ ), dormancy index, viability index and activity index to each set of seeds from each population. With the analysis of the results it can be concluded that the populations from Salamanca are more dormant that those from Cáceres. When it comes to the germination speed, a mean value of 6 days was reached to the most of the cases. Furthermore, it have been concluded that the germination speed decreases at low temperatures and that the seeds without pretreatment need more time to germinate than those with treatment. The largest germinative rate was reached in the environment 1 (10/15°C in 12h light/12h darkness) for the most of the populations whereas the lowest values correspond to the environment 3 (4°C in a constant darkness). This way, constant and low temperatures decreases the percentage of germination of the seeds while high and alternating temperautes are positive to promote the germination. It is concluded that the use of developers of growth turn out more positive to the germinative rate than the absence os treatment being the giberelic acid the better option to increase significantly the germinative rate of all the populations.

**Palabras clave: germinación, endemismo ibérico, fotoperiodo, dormancia**