

Creation of a Population of the Threatened Species *Digitalis lanata* Ehrh. (Scrophulariaceae) in the "CĂRBUNA" Landscape Reserve (Republic of Moldova)

Ștefan Belous^{1,*}

¹ Moldova State University, National Botanical Garden (Institute), Republic of Moldova

* Correspondence: stefan.belous@gmail.com;

Received: 7.08.2025; Accepted: 21.09.2025; Published: 16.11.2025

Abstract: In the context of the sharp degradation of natural ecosystems, the reintroduction of vulnerable species is an essential strategy for the conservation of biodiversity. *Digitalis lanata* Ehrh. (Scrophulariaceae) – a critically endangered vascular plant in the Republic of Moldova, has suffered a drastic reduction in its natural populations, requiring urgent conservation measures. This paper presents a project to reintroduce this species in the “Cărbuna” Landscape Reserve. The work was undertaken in 2022-24. *Digitalis lanata* Ehrh. – perennial plant, 30-70 cm tall. Stem erect, branched towards the apex, woolly. Basal leaves oblong-lanceolate, arranged in a rosette; stem leaves elliptic-lanceolate, semiamplexicaul. Inflorescence raceme spiciform. Flowers zygomorphic, unisexual, short pedicellate: calyx glandular woolly; corolla urceolate campanulate, yellowish white, reticulate inside, glandular pubescent outside. Fruit – ovoid capsule. Blooms in June-August. Grows in lighted glades and forest edges. The degradation of natural habitats has led to the decline of their populations in the spontaneous flora of the Republic of Moldova. The habitats in the "Cărbuna" reserve, with favorable ecological conditions, represent a suitable place for the reintroduction of this species. The seeds were collected from the natural population existing in the Republic of Moldova, located about 40 km north (Nimoreni village, Ialoveni district). The seeds were germinated under controlled conditions, in greenhouses, to obtain vigorous seedlings. The seedlings were planted in a forest glade (the surface of circa 0,5 ha) in the habitat selected in the reserve, taking into account the ecological requirements of the species. The reintroduction of the species *D. lanata* in the "Cărbuna" Landscape Reserve represents an important step for the conservation of biodiversity in the Republic of Moldova. The use of seeds from the *in-situ* population ensures genetic diversity and increases the chances of successful survival of the species in the republic. Continuous monitoring is essential to ensure the long-term viability of the created population.

Keywords: *Digitalis lanata*; Reintroduction Project; Cărbuna Landscape Reserve; Biodiversity Conservation; Seedling Establishment.

© 2025 by the authors. This article is an open-access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The authors retain copyright of their work, and no permission is required from the authors or the publisher to reuse or distribute this article, as long as proper attribution is given to the original source.