

## CONSERVATION OF GERMPLASM OF RARE SPECIES FROM THE “DOBRUSA” LANDSCAPE RESERVE

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In a constantly moving and developing world, measures to save and conserve genetic resources are becoming imperative. The collection and storage of plant germplasm is a modern system for biodiversity conservation, which allows the storage of a large number of samples in a relatively small space. The stability of plant biodiversity is ensured by the synergy of *in situ* and *ex situ* conservation strategies.

In 2024, within the National Botanical Garden (Institute) “Al. Ciubotaru”, the germplasm collection “*Rare Plants of the Republic of Moldova*” (PRRM) was established, which has a primary role in ensuring the *ex situ* conservation of rare species of native flora. This collection presents, in essence, a scientific basis for a subsequent assessment of the preservation of quality indices, as well as the regeneration-multiplication-repopulation of species at high risk of endangerment.

Protected areas are selected as target points for the collection of biological material from *in situ* conditions, where rare species are widespread, including the “Dobruşa” landscape reserve.

Within the PRRM germplasm collection, seeds of species that represent rare taxa protected by the state are preserved through: *The Red Book of the Republic of Moldova* (1); *The Law on the Fund of State Protected Natural Areas* (2); *The Law on the Plant Kingdom* (3). Germplasm collections on the territory of the Dobruşa Landscape Reserve were carried out in 2024-2025, through field trips. The collections were sustainable and conscious, aligned with the principles of nature conservation.

During the reference period, germplasm of the following species were collected and preserved: *Cephalanthera damasonium* (Mill.) Druce (1, 2); *Epipactis helleborine* (L.) Crantz (2); *Epipactis purpurata* Smith (1, 2); *Fritillaria montana* Hoppe ex W.D.J.Koch (2, 3); *Galanthus nivalis* L. (1, 2, 3); *Lilium martagon* L. (2); *Lunaria annua* L. (2); *Scopolia carniolica* Jacq. (1, 2, 3); *Staphylea pinnata* L. (2).

In conclusion, we can state that the “Dobruşa” landscape reserve has potential

for collecting germplasm of rare native species, specific to forest coenoses. *Ex situ* conservation of species with high conservation value in germplasm collections ensures their long-term protection.

**Keywords:** rare plants, *ex situ* conservation, germplasm, Dobruşa protected area

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