

## CONTRIBUTIONS TO THE STUDY OF THE SPECIES *DAPHNE MEZEREUM* L. IN THE REPUBLIC OF MOLDOVA

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*Daphne Mezereum* L. is a glacial relict and is of particular scientific interest, given the fact that in the Republic of Moldova, it grows only in one place of growth: „Plaiul Fagului” Scientific Reserve being included in the Red Book of the Soviet Union as well as in all editions of the Red Book of the Republic of Moldova. At the same time, it is protected by the Law on the fund of natural areas protected by the State (1998), and it is mentioned in other monographic works that include studies of rare species such as: Rare plants from the spontaneous flora of the Republic of Moldova; Rare taxa from the flora of the Republic of Moldova; Preliminary Red List of vascular plants from the flora of the Republic of Moldova. Therefore, our goal was to monitoring and estimate the size of the population and study its dynamics in the site located in the „Plaiul Fagului” Scientific Reserve.

The range of the *Daphne Mezereum* species includes Europe, the Scandinavian peninsula, the Balkan peninsula, the Caucasus, Asia Minor as well and Western Siberia. In the Republic of Moldova, it grows only in the Northwest of the „Plaiul Fagului” Scientific Reserve in the composition of the sub-tree, in the understory of a humid forest of sessile oak with beech and hornbeam, alongside the small ravine on brown and sandy clay soil.

*Daphne Mezereum* is a Eurasian nanophanerophyte, mesophilic, mesothermal, and schiophilic species. It blooms in February-March until the leaves appear and are pollinated by bees, flies, and Lepidoptera. Fructifies from June to August and is propagated by seeds.

The data from the literature previously indicated the presence of a stable population with mature specimens and about 200 juvenile specimens, while as a result of our monitoring carried out during 2017-2023, we found that the number of individuals in the population of *Daphne Mezereum* drastically reduced. Currently it lists 6 mature specimens and only 21 juvenile specimens. Most likely, climate changes with acute moisture deficit in the last decades, prolonged drought, and extreme temperatures are some of the factors that led to the reduction of the species' population. Therefore, according to the IUCN criteria, it falls into the Critically Endangered category [CR]. A4ce; B2ab (i, ii, iii, iv); D.

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