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MĂSURI DE CONSERVARE A SPECIEI *GENISTA TETRAGONA* BESSER (FABACEAE) ÎN REPUBLICA MOLDOVA

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Rezumat. *Articolul oferă câteva date despre prezența și primii pași făcuți pentru reproducere în condiții ex situ, urmate de repopularea/repatrierea în habitatul natural a speciei *Genista tetragona* Besser (familia Fabaceae), plantă vasculară rară în Republica Moldova.*

Cuvinte cheie: *Genista tetragona, repopulare, plantă vasculară rară, Republica Moldova*

CONSERVATION MEASURES OF *GENISTA TETRAGONA* BESSER (FABACEAE) IN THE REPUBLIC OF MOLDOVA

Abstract. *The article provides some data on the presence and the first steps taken for reproduction in ex situ conditions, followed by repatriation to natural biotopes of *Genista tetragona* Besser (family Fabaceae), which is a rare vascular plant in the Republic of Moldova.*

Keywords: *Genista tetragona, repatriation, rare vascular plant, Republic of Moldova*

Introduction

The threat of extinction of wild floristic species from their natural habitats around the world is rapidly increasing. In situ conservation of threatened plant species within plant communities is preferable to the ex situ conservation. However, the scale of destruction of natural habitats in many regions often does not leave opportunities for the preservation of plants in the conditions of their normal growth. In this regard, the reintroduction of certain rare species into natural biotopes should be considered as a promising measure to save endangered plants [5]. Within the framework of the "Research and conservation of vascular flora and macromycobiota of Republic of Moldova" project (finances by NARD, project cipher 20.80009.7007.22), the first steps were taken for



Fig. 1. *Genista tetragona* Besser (habitus)

reproduction in ex situ conditions, followed by repatriation to natural biotopes of *Genista tetragona* Besser (family Fabaceae) (Figure 1), which is a rare vascular plant in the region.

Results and discussions

Genista tetragona Besser (= *Genista tinctoria* auct., non L.). The species blooms in April-May, bears fruits in June-August. It multiplies, generally, by seeds. Xerophilic, calciphilic, decorative shrub.

It grows in the petrophilous phytocenoses on Sarmatian limestone substrates of the Dniester river basin and its tributaries (Răut river and Iagorlâc river) (Figure 2A). The general distribution of the species includes Ukraine (it is found near Artirovka

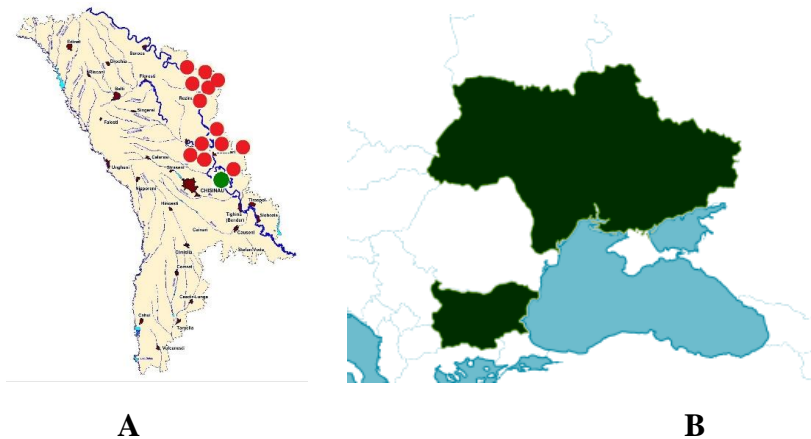


Fig. 2. Distribution of *Genista tetragona*: A – in the Republic of Moldova; B – overall distribution. (● – places of natural growth; ● – place of repatriation)

commune, Odessa region) and Bulgaria in the northeast of the Balkan Peninsula [4, 6] (Figure 2B). Among the most common limiting factors are afforestation of calcareous slopes and limestone quarrying. It is considered to be an endemic species with a very restricted distributional area [2-4, 6].

Modern studies of distribution in the region and the number of local populations have made it possible to evaluate it as Vulnerable Species [VU]. The taxa is currently included in the list of plant species protected in the Republic of Moldova [1]; included in the 2nd and 3rd editions of the Red Book of the Republic of Moldova [2, 3]. Territorially protected in the Scientific Reservation „Iagorlâc”, the Landscape Reservation „Trebujeni”, and on the territory of Botanic Nature Monument „Haraba” [2, 3]. The species has been included in the European Red List as vulnerable (VU – B2ab(iii) and in the lists of Bern Convention [7, 8].

Within the above mentioned project activities the first steps have been taken to expand the distribution and increase the number of *Genista tetragona* in the region by

creating new local populations. Planting material (Figure 3A) was obtained, which was planted on limestone slopes located to the east of the village of Speya, Anenii Noi district (GIS coordinates – 47° 0'45.60" North lat. and 29°18'17.02" East long.). Part



A

B

Fig. 3. *Genista tetragona*: A – planting material; B – experimental plot

of the planting material was planted on the experimental plots of rare species in the Al. Ciubotaru National Botanical Garden (Figure 3B).

Conclusions

In order to preserve the narrowly localized endemic *Genista tetragona* Besser, confined exclusively to open rocky habitats of the native bank of the Dniester and its tributaries, the first experiment was made to create a new population on limestone slopes east of the village of Speya, Anenii Noi district. In subsequent years, work on the creation of new populations and their long-term monitoring will continue.

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