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***PILOSELLA FLAGELLARIS* (WILLD.) ARV.-TOUV. (ASTERACEAE)
– VULNERABLE TAXON IN THE FLORA OF THE REPUBLIC OF
MOLDOVA**

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Abstract: New data on the distribution and the study of the populations of the rare species *Pilosella flagellaris* (Willd.) Arv.-Touv. (Asteraceae) in the natural habitats of the Republic of Moldova are presented in the article.

Key words: flora of the Republic of Moldova, *Pilosella flagellaris*, Asteraceae, rare taxa, new data.

The species *Pilosella flagellaris* (Willd.) Arv.-Touv. – was identified for the first

time, in the flora of the Republic of Moldova, in 2010, when a monographic study on the Asteraceae family (subfam. *Cichorioideae* Kitam.) was conducted [1]. In the studied territory, *Pilosella flagellaris* grows: near Zabriceni commune, Briceni district; Naslavcea and Lencăuți communes, Ocnîța district; Rădenii Vechi commune, Ungheni district; Lozova commune, Strășeni district and within the boundaries of municipality Chișinău. The natural area of distribution of the species comprises Central and Eastern Europe and the Scandinavian Peninsula (Finland) [3].

Pilosella flagellaris is a rare taxon, it grows on hills and slopes with steppe vegetation, grasslands, woodland edges and glades. It is a perennial, European hemicryptophyte. Mesothermic xeromesophile. It blooms in May-June. The fruits ripen in June-July. It propagates by seeds and vegetatively – by stolons (Figure 1).

Figure 1. *Pilosella flagellaris*

In 2011-2019, in the framework of a research on rare species of Asteraceae, the populations of the species *Pilosella flagellaris* that occur in Naslavcea and Lozova communes and in the municipality of Chișinău were studied to identify their state, growth conditions and parameters in the natural ecosystems (Figure 1). In terms of conservation, the population found near Naslavcea was in the best condition, because the number of individuals was growing. The population was found on a north-facing slope with petrophyte steppe vegetation, the *Pilosella flagellaris* grew solitary or in groups over an area of 300 m², being accompanied by the species: *Achillea stepposa* Klokov et Krytzka, *Agrimonia eupatoria* L., *Bothriochloa ischaemum* (L.) Keng, *Carex humilis* Leyss., *Echium vulgare* L., *Euphorbia cyparissias* L., *Pilosella echioides* (Lumn.) F. Schultz et Sch. Bip., *P. officinarum* F. Schultz et Sch. Bip., *Potentilla arenaria* Borkh., *Thymus marschallianus* Willd., *Teucrium chamaedrys* L., *Veronica jacquinii* Baumg., *Stipa pulcherrima* C. Koch, etc.

During the field expeditions done in the summer of 2020, *Pilosella flagellaris* populations were found in three new places: near the Gordinești commune, Edineț district, in a sector with calcareous substrate and steppe vegetation; in the valley of the Racovăț river (the territory of “La Castel” Landscape Reserve), 30 mature individuals were identified, growing in small groups of 2-5 plants; near the Furceni commune, Orhei district, on a slope with steppe vegetation, the species occurs solitarily and in groups, forming small and dense clumps; near Cîzlar village, Leova district, about 20 mature individuals were identified, growing in diffuse groups on an area of about 50 m².

In the recent years, the conservation status of this species was evaluated according to the IUCN criteria [2], and thus it was classified in the Vulnerable category [VU] A4cde; B2ab(iii,iv,v). The populations of the species are put at risk by excessive grazing and mowing, degradation of steppe sectors and habitat loss.

Pilosella flagellaris is protected *in-situ* in the territory of “Codru” and “Plaiul

Fagului” Scientific Reserves and the “Stânca Naslavcea” Geological and Paleontological Monument. *Ex-situ*, it grows in the sector of rare plants of “Alexandru Ciubotaru” National Botanical Garden (Institute). As conservation measures, we propose to protect the places where this species occurs, to monitor the populations and to record the parameters for the study on their dynamics and to include this taxon in the list of plant species protected by law.

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SELECTIVE BIBLIOGRAPHY

1. Ionița O., Negru A. Specii noi de *Pilosella* Hill. (Asteraceae Dumort.) din flora Basarabiei. In: Akademos, 2010, nr. 4 (19), p. 124-126.
2. IUCN. *Guidelines for application of IUCN Red List Criteria at Regional Levels*: Version 3.0. IUCN Species Survival Commission. IUCN, Gland, Switzerland: 2003.
3. Шляков Р. Род *Pilosella* Hill. В: Флора Европейской части СССР. Ленинград: Наука, 1989, т. 8, с. 375.