

ECOLOGICAL, BIOLOGICAL AND GEOGRAPHICAL STUDY OF THE RATIONAL USE OF THE RESOURCE POTENTIAL AND ENVIRONMENTAL PROTECTION

TAXONOMIC STRUCTURE OF THE FLORA OF THE FIELD PRACTICE AREA IN ULANOVICHI VILLAGE

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The flora of any region is subject to dynamics, which has especially intensified in recent years under the influence of human economic activity. Also, the reason for the change in the floristic composition of one region or another was the withdrawal of large areas from agricultural circulation. This, in turn, led to the fact that these territories began to be occupied by plant species that had left the culture and became invasive. Thus, there is a growing tendency for the reduction of some species (primarily native) and the penetration of adventive elements into the flora of the region. Therefore, the study of flora, fixing its current state, is always remain relevant. The teachers and students of Vitebsk State University named after P.M. Masherov actively began to study the flora of the Vitebsk region, where the Ulanovich agricultural station is located in 1980-1990. [1]. Until now, no special floristic studies have been carried out in the vicinity of the agricultural station. We carried out floristic research in this area in 2019-2020.

The aim is to highlight the diversity of higher vascular plants in the Ulanovich field practice area, to establish the taxonomic structure of the flora of this region and to mark economically valuable species.

Material and methods. The route method was used as the main study method. The stock herbarium of the Department of Botany of the Vitebsk State University named after P.M. Masherov. In different biotopes, the general floristic composition was described, and search for rare and invasive species was carried out. For a more complete identification of the floristic composition of the study area, repeated visits were carried out to some places during the growing season. The flora list includes wild-growing species and some well-naturalized cultivated ones. The work of L.M. Merzhvinsky "Flora of the Belarusian Poozerie: Classification list of higher vascular plants" was used as a basis. [2]. The species were identified with "Key to Higher Plants of Belarus" [3].

Findings and their discussion. We found that 413 species of higher vascular plants grow in the vicinity of the Ulanovichy agricultural station. The taxonomic structure of the flora is established and an assessment of its economic importance is given. The marked species belong to different departments. Among them: Club mosses – 2 species; Horsetails – 4 types; Ferns – 5 species; Gymnosperms – 3 types; Angiosperms – 399 species.

The most numerous in the Angiosperms division are the families: Asteraceae, Rosaceae, Fabaceae, Poaceae, Cyperaceae, Caryophyllaceae, Ranunculaceae, Brassicaceae, Scrophulariaceae, and Lamiaceae. The flora of the practice area is represented by a number of useful plants. Among them, the most important are medicinal, fodder, food, decorative. Of the medicinal, the most common are *Origanum vulgare*, *Symphytum officinale*, *Hepatica nobilis*, *Leonurus cardiaca*, *Thymus serpyllum*, *Lathyrus vernus*, *Achillea millefolium*, *Agrum repens*, *Artemisia absinthium*, *Betonica officinalis*, *Capsella bursa pastoris*, *Chelidonium majus*, *Equisetum arvense*, *Frangula alnus*, *Fragaria vesca*), *Plantago major*, *Potentilla erecta*.

In the investigated territory, dangerous invasive plant species are very often found: *Solidago canadensis*, *Acer negundo*, *Robinia pseudoacacia*, *Heracleum sosnowskyi*, *Echinocystis lobata*, *Impatiens glandulifera* and others.

Conclusion. The flora of the investigated area is quite rich. On a small area, 413 species of higher vascular plants grow. This is due to the wide variety of natural conditions and the strong influence of human economic activity.

1. Syuborova, S.F. Analysis of the flora of the Vitebsk region / S.F. Syuborova, L.M. Merzhvinsky // Vesnik VDU. - 1996. - No. 1 (1). - S. 31-35.

2. Merzhvinsky, LM Flora of the Belarusian Poozerie: Classification list of higher vascular plants. - Vitebsk: VSU im. P.M. Masherova, 2000. -- 60s.

3. Keys to higher plants of Belarus. / Ed. IN AND. Parfenova. - Minsk: Design PRO, 1999. -- 472 p.

THE CONTENT OF BIOFLAVONOIDS IN ALCOHOLIC EXTRACTS OF WILD PLANTS OF SHARKOVSHCHINSKY DISTRICT

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Recently, there has been a significant increase of interest in the study of free radical oxidation processes, and as a result, substances that can affect the intensity of these processes. An important role in this process belongs to the bioflavonoids contained in plants. These substances are vitamin-like compounds, they are also called substances with P-vitamin activity. The mechanisms of action of bioflavonoids are different: they can act as a trap for the resulting free radicals; inhibit the formation of free radicals by directly preventing the course of any process or reaction in the body (inhibition of