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The status of *Robinia pseudoacacia* as an invasive species in the conditions of Belarusian Palesse is considered, taking into account the known biological characteristics of the plant and the author's own field observations. The positive and negative sides of this species spreading are discussed.

Keywords: black locust, Black Book of the flora of Belarus, Brest region, plant spreading.

The invasion of certain plant species is one of the most common environmental problems of our time, which is also typical for the territory of Belarus. In the Republic of Belarus, there is a Resolution [1], according to which the woody legume plant black locust (*Robinia pseudoacacia* L.) is included in the list of species prohibited for introduction and (or) acclimatization. In addition, the species is included in the “Black Book of the flora of Belarus” [2]. On the basis of the need to take measures for population management, the species has the status A-3, where A is a category of species for which measures to restrict the spread, etc. are necessary, and 3 is the degree of severity of the hazard [2].

Black locust is currently found in 105 administrative districts of the country, where 1681 of its location have been identified on an area of 495 hectares [2, 3, 4]. In particular, *R. pseudoacacia* was widely planted as an introduced plant on the territory of the Belarusian Palesse – in the landscaping of settlements and along the roads in the Brest and Gomel regions, in some places as forest cultures. It became widespread in pine and mixed forests due to its unpretentiousness to soil and ground conditions [3, 4].

Black locust, in comparison with other invasive plant species, has comparatively high economic value. Thus, as a result of the assessment of 54 invasive species of vascular plants of the Belarusian Polesse [5], the total score for *R. pseudoacacia* was +3. At the same time, the species poses risks due to increased competitiveness (because of a powerful root system with a nitrogen fixation apparatus), the production of a large number of seeds, the viability of which lasts up to 50 years, rapid growth and high ecological plasticity. The phenolic compounds that it synthesizes have high allelopathic activity, and through the soil they are able to inhibit some plant species. The deterioration of the soil under black locust is noted due to toxic substances formed in its roots [2, 4].

In June–August 2021 we carried out the field studies of the populations of black locust in Pinsk district of the Brest region. We have described in details 10 places of growth of black locust as solitary trees and 10 as plants in tree groups. Young black locust shoots, looking as separate plants, but having the features of root offshoots, within the crown projection area of older *Robinia*, were observed only under 3 of 10 solitary trees and under 4 of 10 trees growing in groups. Similar studies were carried out for the ash-leaved maple (*Acer negundo* L.) with the following results: juvenile plants were observed under 7 of 10 solitary older trees and under 9 out of 10 trees growing in groups. A smaller number of young plants of *Robinia* indicates a less intense spreading process. Thus, there are prerequisites for a possible decrease in the invasive status of the species in the flora of Belarus. Further monitoring of the impact of black locust on natural plant communities and surrounding biodiversity is needed.

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