

**BIO-ECOLOGICAL EVALUATION OF THE SPECIES OF THE GENUS
CEDRUS TREW IN THE NIKITSKY BOTANICAL GARDENS ARBORETUM**

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The article covers the problems of introduction of the species of the genus *Cedrus* Trew. On the examples of the Nikitsky Botanical Gardens Arboretum plants it has been given the characteristic of the dendrometrical parameters and a biotic level of the species of the genus *Cedrus* Trew., that are used in a garden – park construction and greening in the Southern Coast of the Crimea. On the base of the inventory works it has been pinned down that for the time being there are 11 species and intraspecies taxons of the genus *Cedrus* Trew in the Arboretum. The trees *Cedrus deodara* (Roxb. ex D. Don) G. Don. are marked with a higher intensity of growth and a high biotic level. The plants *Cedrus libani* A. Rich. form the main dendrological core of the collection park plants, hereat they exert the highest biotic parameters. According to the soil moisture requirement there are two groups of the genus *Cedrus* Trew. representatives: the first one includes the draught – resistant plants, that are able to grow without any artificial irrigation during a summer season in the conditions of the Southern Coast of the Crimea, the second one includes the plants, that are relatively resistant to a deficit of a soil moisture and have to be irrigate during a dry period. The total evaluation of the state and peculiarities of a cedar cultivation in the conditions of Arboretum give an evidence of necessity to a further

enlargement of the genus *Cedrus Trew* representatives' use in a garden – park construction and communities' greening in the South of our country.

Keywords: the genus *Cedrus Trew.*, Arboretum, introduction, dendrometry, biotic.

References

1. Kuznetcov S. I. Contribution A. M. Kormilitsyna in the theory of the introduction of woody plants in connection with the prospects of its development, *Sb. sci. of the works of the GNBS*, **130**, 120 (2008).
2. Kuznetcov S. I., Ruguzov A. I., Kazimirova R. N. Introduction of cedars (*Cedrus*) in the USSR, *Proceedings of the VIII dendrological congress of socialist countries*, 42 (Tbilisi, 1982).
3. Potapenko I. L., Klimenko N. I. Decorative forms of coniferous woody plants for landscaping of the South-Eastern Crimea, *Materials of the international scientific conference: Prospects of introduction of ornamental plants in botanical gardens and dendroparks*, 40 (Simferopol: Crimean Federal University V.I. Vernadsky, 2014).
4. Zabelin I. A. Trees and shrubs of the Arboretum Nikitsky Botanical Garden. Gymnosperms, *Works of the Nikitsky Botanical Gardens*, **1**, 178 (1939).
5. Plugatar Yu. V., Koba V. P., Papelbu V. V. Assessment of the condition and peculiarities of cultivation of species of the genus *Cedrus Trew* in the expositions of the Upper Arboretum Park of the Nikitsky Botanical Garden, *IV All-Russian scientific and practical Internet conference with international participation "Decorative Horticulture in Russia: state, problems, prospects"* (Sochi, 2015).
6. Prokofieva E. A. The some aspects of ecological and biological state of the Alupkinsky Park trees, *The modern scientific researches in gardening*, **1**, 109 (2000).
7. Galushko, R.V., Zakharenko, G.S., Kuznetsova, V.M. and etc. *Catalogue of dendrological collection of SNBG*, 102. (Yalta, 1993)
8. Plugatar Yu V. *Forests of Crimea: a monograph*, 368 (Simferopol: IT "ARIAL", 2015)