

**THE STRUCTURE AND DYNAMICS OF COLLECTION OF THE BOTANICAL
GARDEN OF TAURIDA NATIONAL V.I. VERNADSKY UNIVERSITY (2004-2014)**

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Botanical Garden as an independent phenomenon has almost a thousand years of history and dates back to the medieval monastery "pharmacy" gardens. For a long time their functions significantly transformed. In parallel, the concept of a botanical garden was changed, but kept the main intrinsic characteristics - availability of the collections of living plants formed on the scientific basis.

The Botanical Garden of Taurida National V.I. Vernadsky University (hereinafter BG TNU) was established in 2004. The present work was undertaken to summarize the work of introduction for the first 10 years of it's existence. It is aimed at analyzing the structure and dynamics of the formation of the collection funds.

BG TNU feature is the fact that it was founded on the basis of existing park-monument of landscape art "Salgirka." The area where the park was located, has a 200-years history, and in addition to natural objects here are two monuments of history and architecture of XVIII-XIX centuries. - "The House of academician P.S. Pallas "and" Country Complex M.S. Vorontsov ". In this regard, one of the objectives in the formation of the BG TNU was the transformation of the city park in a highly decorative landscape complex as a scientific and educational areas, including historic buildings.

To demonstrate the collection, it was decided to organize exhibitions of decorative dendrological and flower areas in the overall structure of the arboretum and reconstruction of the most decorative parts of the park with the saturation of new species and cultivars.

For 10 years in The BG TNU six new exhibition complex: Rosary, Syringary, Small exhibition of ornamental perennials (Iridary), large exposition of ornamental plants (Large

fields), Maze, information platform "Botanical gardens and arboretums of Ukraine" were created. Seven systematic arboretums sites included in the overall structure of the arboretum: Coniferetum, Maples, Oaks, Magnolias, Willows, Forsythias, Honeysuckles were organized.

At the time of transfer of the university park "Salgirka" to organize the botanical garden on its territory 134 species of trees and shrubs from 75 genera of 35 families were growing. By 2014, the overall composition of the collection of BG TNU includes 3114 species and intraspecific taxa from 536 genera of 141 family.

Leading positions in the systematic structure of dendroflora of the garden Rosaceae, Oleaceae and, in third place Cypress occupies. Of the other major families Caprifoliaceae, Pinaceae and Sapindaceae can be distinguished. The group of the most extensive genera in dendrological collection includes Rosa L. (225 species and varieties), Syringa L. (70), Spiraea L. (48), Cotoneaster Medik. (44), Juniperus L. (37), i.e. leading members of the same families.

Among herbaceous plants of open ground family Iridaceae Juss. (501 taxa) dominates, with a central genera Iris L. (449 species and varieties). With a much smaller volume of Iridaceae families Liliaceae, Compositae, Xanthorrhoeaceae, Paeoniaceae follow. In addition to the major genera Iris Hemerocallis L. (159), Tulipa L. (115), Chrysanthemum L. (105) and Paeonia L. (95) are presented.

A special place is occupied by rare plants listed in the international, Russian and regional environmental documents. At present, the BG TNU has 161 rare species, of which 87 representatives the Crimean flora. Of the 106 endemic species and subspecies of the Crimea 14 (13%) are cultivated in the BG TNU.

To identify common trends in the dynamics of the collection of the Botanical Garden and forecast of its development the regression line was built on 10-year data. Creating a collection of herbaceous plants started later than dendrological, but was held much more active. However, the curve reflecting its dynamics have trend to reach a plateau, which may indicate the approaching to the limit the volume of the collection under the existing conditions. The speed of growth of dendroflora is less, but its decline is not observed.

For a total garden collection the best type of regression in the approximation of empirical data is a polynomial of the 3rd degree. Between 2004 and 2007, the growth rate was the highest, which is natural on the stage of occurrence of introduction points. And then stabilized and for five years (2007-2012) had remained at the same level, as evidenced by the same slope of the curve on this segment. The forecast indicates a slowdown of growth of the overall collection and access to the plateau at 3,500 samples.

In our view, this value is much lower than the potential of introduction points of The Foothills of Crimea. Forecasting the development of the collection BG TNU for the next 10 years should be guided by 5-5.5 thousands taxa. Although we believe that this is not limit of numbers of introduction opportunities in The Foothills of Crimea.

Keywords: botanical garden, introduction, funds, exhibition, development strategy.

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