

The importance of inventory of living plants in phytogeographical and park plantations of scientific institutions of the Kyiv (Ukraine)

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One of the bases of directed introduction of plants is keeping records of taxonomic diversity of ergasiophytes. Therefore, in the case of long-term introductory activities, it is very important to conduct an inventory of the current taxonomic composition of collections. There is often a need for additional research on weeds, invasive plants, etc.



In Ukraine, the leading scientific institution in the field of plant introduction is **M.M. Gryshko National Botanical Garden** on an area of 120 hectares. About 30% of its territory is represented by phytogeographical areas of the department of natural flora, which simulate the phytocenoses of the temperate regions of Eurasia. In 1950-1990, many alien plants were introduced here. For example, a total of more than 1,600 species were transplanted from the Caucasus to Kyiv, and more than 1,000 from Central Asia. This only partially demonstrates the scale of the great work to create collections of living plants of the Botanical Garden. But not all plants were successfully naturalized, and lists of plants in phytogeographical plots were mostly created in Soviet times. Therefore, the current inventory of ergasiophytes and spontaneous flora is relevant in these plots. We have been conducting such research in recent years using a large amount of literature and other sources, as well as materials from one of the largest herbariums in Ukraine - KWHA.

For example, according to the results of the plant inventory in the "Caucasus" plot in 2010-2015, 406 taxa (species and subspecies) were recorded, of which 350 are part of the natural flora of the Caucasus. Instead, only 218 species were included in the list of living plants of the "Caucasus" plot (2010) before the inventory. Currently, interesting ergasiophytes of Caucasian origin are species of the genera: *Acer*, *Arum*, *Galanthus*, *Scilla* and many others.



"Caucasus" plot in NBG



Adonis vernalis



Galanthus alpinus



Lilium monadelphum



Phelypaea coccinea

In 2021, we completed the next stage of the inventory. It was established that 347 species now grow in the "Steppes of Ukraine" plot. 305 taxa were recorded in the "Central Asia" plot, of which 183 are part of the natural flora of Central Asia. An important result was the clarification of the taxonomic composition of large genera in the collections, for example: *Allium*, *Crataegus*, *Galanthus*, *Tamarix*, *Tulipa*, etc.



"Steppes of Ukraine" plot in NBG



Gymnospermium odessanum



Prunus tenella



Tulipa sylvestris subsp. *australis* and *T. suaveolens*



Tulipa praestans



"Central Asia" plot in NBG



Allium caeruleum and *A. caesium*



Crataegus dsungarica



Tamarix hohenackeri



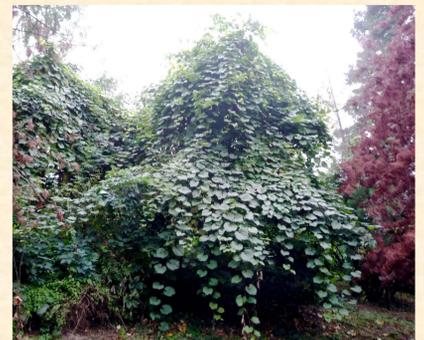
Tulipa praestans

Similarly, an inventory of plants in the park plantations of the **Syretsky Dendrological Park**, which has rich collections of ergasiophytes. In 2016-2017, 538 taxa of woody plants and 931 taxa of herbaceous plants were recorded here. Lists of invasive plants of the Botanical Garden and Syretsky Dendrological Park were also compiled. The most harmful are woody lianas – ergasiophygophytes (*Clematis vitalba*, *Parthenocissus inserta* and *Vitis* spp.).

The obtained information will be used in the new edition of the Catalogues of ergasiophytes. This makes a significant addition to the modern flora of cultivated plants in Ukraine.



Plantings of Syretsky Park



Invasion liana *Vitis amurensis*