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COMPARATIVE ANALYSIS OF LOCAL RARE DENDROYEKZOFLOR OF ARTIFICIAL RESERVE PARKS OF FOREST-STEPPE OF UKRAINE

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The results of the comparative analysis of floral for the rarity dendroekzoflory of objects of artificial origin of the nature reserve fund of the Forest steppe of Ukraine are shown in the article. Figures of the between categorical and intercategorical, regional and interregional correlation links are directed, also the significant correlation interdependence between major objects is demonstrated. The most significant links between the compared dendrosozoflor are selected with the help of the visualization methods of the floral analysis.

Rarity dendroekzofit, correlation links, botanical gardens, arboretums, the Forest steppe of Ukraine, IUCN Red List, the European Red List

An important reason for the separation of floristic regions are the similarities and differences in species composition of plants in some parts of the study area [9]. Method convergent floral zoning static [8] and is based on the account of the flora species with further comparing the ratios Association. On the basis of the number of species of flora and two compared to the number of common species are indicators calculated similarities or differences between these floras. To calculate these indicators in practice, comparative studies of natural flora floral use different factors - Zhakkara,

Czekanowski-Sørensen, Ekman, Stuhrena-Radulesku, Preston et al. [8, 9, 6, 10, 7]. Comparative analysis for rare natural flora spent many researchers [4, 12]. For comparison dendroflora introduced above methodological procedure has not yet been applied.

The objects of our study was the rarity fraction of all species of life forms of woody plants in the broadest sense (trees, shrubs, woody vines, shrubs, shrubs) listed in the official "red list", particularly in the Red List of the International Union for Conservation of Nature and Natural Resources (further IUCN) [13, 14], the European

Red List of animals and plants that are endangered on a global scale [2], the Berne Convention [5]. In general these types of plants we call dendrosozofitamy [3].

The purpose of research - identifying correlations dendroekzoflory rare, because for a long history of introductions botanical gardens, dendrological parks and park monuments of landscape architecture steppes of Ukraine introduced to the culture of a significant number of rare species of woody plants. According to our data [1, 3] on the objects of natural reserve fund (NRF) steppes of Ukraine artificial increases 171 rare species of exotic dendrofitiv protected "red list" of international significance.

Materials and methods research. To determine the correlation dendrosozoflor used statistical method comparison biota (Jaccard index) [8, 9, 6, 10], the data visualized methods of graph similarity [11].

Article written on the basis of introduction as a method of preservation of rare plant species outside their natural habitats. It is known that the cultivation of species of woody plants listed in the international "red lists" artificial protected parks in Ukraine is a part of expansion of introduction habitats. Ultimately, this greatly increases the degree of representativeness and improves security saving the world. Therefore, a comparative analysis of the floristic it is also important to develop theoretical and practical foundations for further introduction dendrorarytetiv ex situ.

Analysis affinity vintage dendroekzoflor possible only in terms of set theory, which is the most mathematically correct parameter called Jaccard index (Sj) (Eng. Jaccard Index) [11]. It shows the ratio of the number of species found in biota both at the same time, the number of species found only in one of the biota. Where a- number of species in one floristic list; b- number of species in other floristic list; c- number of species common to both floristic lists. The limits of this coefficient ranges from 0 to 1. The value of Sj = 1 means that the floristic lists are the same. Our choice for the calculation of this index arithmetic mean similarity for rare dendrosozoekzotiv based on the priority of its development and use, simplicity and convenience for the calculations.

To clarify categorical and mizhkatehorialnyh links dendrosozoflor compiled lists of rare dendroekzofitiv for each object region Research and calculated for each pair of objects coefficient of similarity (Zhakkara). Indicators recorded in pairwise

comparisons of similarity matrix, where comparable dendrosozoflory located in rows and columns, at the intersection where indicated value of similarity between them. The table presents the correlation matrix similarity rerytetnoyi dendrosozoflory for major protected natural reserve fund steppes of Ukraine. To visualize the correlation between the studied parameters listed in the table in Figure shows a graphical representation of this matrix. With the help of graphs mathematical model dendrosozoflor similarities between which there are significant correlations mutual dependence. To construct a two-dimensional scheme - the graph (Figure) dendrosozoflory to be compared, shown as a circle, and the similarity between them - in the form of lines that connect them. The degree of similarity indicates line width. It can express the graph structure of the most important links between comparable dendrosozofloramy.

Conclusions

As a result of comparative analysis of the floristic to meaningful correlation reciprocal relationship between dendrosozofloramy NBS them. MM Grishko National Academy of Sciences of Ukraine and BS them. OVFOMINA Kyiv National Taras Shevchenko University. Found a close correlation between species similarity dendrosozoflor botanical gardens and arboretums steppes of Ukraine. It was observed negligible correlation dependence between dendrosozofloroyu m. Kyiv region and other areas of research.

Mathematical models of similarity dendroekzoflory allow to develop theoretical and practical basis for the further introduction and preserve the world's rare dendroriznomanittya ex situ.

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