

PECULIARITIES OF VEGETATION IN SOME POPULATED LOCALITIES OF NORTHERN WEST SIBERIA

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The features of vegetation formation in towns (Nadym, Novyy Urengoy) and big settlements (Pangody, Pravokhettinskiy) in the northern West Siberia are discussed in the article. Despite the nearby geographical position of the localities, there is no tendency to unify their floras. Plant species compositions of the localities belonging to the same geographical subzone are similar only by 40–47%. Clustering of Euclidean distances revealed a greater uniformity of residential and recreational areas by plant species composition than industrial areas. PCA-ordination of 73 geobotanical plots showed a leading influence of soil characteristics on vegetation differentiation by functional urban areas (industrial, recreational, residential). Chemical analyses of 36 soil samples confirmed that this is the soil acidity, mineral nutrition richness and soil moisture. The vegetation of urban functional areas is united by a small pool of frequently occurring apophytes of wide ecological amplitude and a high potential for the development in various secondary biotopes. A 25-year period of observations revealed the instability and dynamism of species composition of the urban vegetation in all the localities. Over this period, the plant species composition of has expanded in all the localities. At the same time, it increased more significantly in small settlements (by 89%) than in bigger towns (by 28–47%). At the same time, the species similarity between the localities increased slightly, no more than 10%. The vegetation of industrial areas is least controlled by human, it is formed spontaneously on the basis of local apophytes. A significant contribution to the formation of vegetation in residential and recreational areas is made by human gardening activities such as use lawn grass mixtures, fertilization and cultivation of ornamental alien plant species. Unintentional drift and spontaneous planting by residents lead to impulsive invasions of alien species that enrich the flora, but are often unstable in environmental conditions of northern urban areas.

Keywords: urban vegetation, north, functional area, urban flora, greening

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