

Vol. 14 (4): 139-146 (2024)

ECOLOGICAL DYNAMICS AND FLORISTIC DIVERSITY IN THE BOREAL ECOTONE OF THE VOLGA BASIN: A STUDY OF KNYAGININSKY DISTRICT

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Received September 2024; Accepted October 2024; Published November 2024;

DOI: <https://doi.org/10.31407/ijeess14.418>

ABSTRACT

The study aims to refine the floristic composition data of the Knyagininsky district in the Nizhny Novgorod region, a key area representing the botanico-geographical features of the boreal ecotone of the Volga basin. To achieve this, a combination of field research, thematic maps, remote sensing data, and literature review was used. The research involved extensive fieldwork conducted in 2020, surveying 60 observation points in various landscapes affected by different degrees of anthropogenic pressure. The vegetation was thoroughly documented, resulting in the identification of 156 species of higher plants across 126 genera and 51 families, some of which were previously unrecorded in the area. The fact of the growth of a number of species not previously noted in this botanico-geographical area is established. The importance of flora researches for understanding the physico-geographical processes in the region is noted. The well-developed Knyagininsky district of the Nizhny Novgorod region is characterized by a significant presence of feral cultivated species. This indicates a significant change in natural ecosystems, the emergence of free ecological niches in them. Result of the anthropogenic change in the territory is the weakening of the clinal nature of the boreal ecotone.

Keywords: Biodiversity conservation, Forest-steppe transition, Habitat fragmentation, Red-listed species
Ecological restoration, Anthropogenic landscape transformation.