
DYNAMICS OF ECOSYSTEMS AND THEIR COMPONENTS

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FLORISTIC TRANSFORMATIONS IN THE VALLEY
OF THE UNITSA RIVER (MOSCOW REGION)

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During the field survey at the natural reserve “Unitsa River Valley” and adjacent territories (total area ≈300 ha) in the municipal district of Zaraysk, Moscow Region, a floristic list was compiled of 346 species of vascular plants. For the first time, the habitats of 3 rare taxa were identified: *Anemone sylvestris*, *Gentiana cruciata*, and *Pulmonaria angustifolia*, which are listed in the Red Data Book of the Moscow Region (2018). Among the identified species, 12 require regular monitoring. Among the 28 alien taxa found, there are 12 invasive and 5 potentially invasive species that tend to spread. A retrospective analysis using archives and documents has revealed several historical stages of the natural complexes in this reserve. It has been established that woody vegetation appeared in the basin of the Unica River (within the boundaries of specially protected area) in the last quarter of the 18th century, as a secondary forest at the site of deforestation. In the 1770-1950s, oak forests with birch mixed with linden and aspen were formed; natural resources were harnessed using traditional forest management techniques, cattle grazing and haymaking took place. In the 1950s and 2010s, as a result of human introduction activities, forest crops began to be grown in protected areas. At the current stage, starting in the 2010s, the structure and appearance of phytocenoses have shown signs of restoration of woody vegetation due to the presence of birch and aspen on old arable lands, meadow slopes of the Osetr River, and near-edge fallow lands. The most notable phenomenon of this period was the widespread expansion of *Heracleum sosnowskyi*, which poses the greatest threat to the natural complex of protected areas and has a detrimental effect on plant diversity and the overall ecosystem.

Keywords: specially protected natural areas, rare species, invasive species, Unitsa River, Zaraysk, Moscow Region.

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