

FORESTS AND LAND-USE DURING THE 19TH CENTURY IN THE FORESTRY OF THE ZVENIGOROD BIOLOGICAL STATION

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Abstract. *Background.* To reveal anthropogenic processes that were directly influencing formation of contemporary forest vegetation in forestry of the Zvenigorod Biological Station (ZBS, Moscow region), it is necessary to analyze the 19th century documents. Question of the research is to determine which kinds of land-use are reliably documented, and the general objective is to describe anthropogenic impact on formation of contemporary forests systematically. *Materials and methods.* Documents were searched in the Central State Archive of Moscow (CSAM). Additional information was extracted from published (1870–1899) reports of Forestry Department (Ministry of State Property). The data of forest inventory (1985–1986) were used to demonstrate the former land-use effects in structure of contemporary forests vegetation. *Results.* For the first half of the 19th century archive documents were found those reflect numerous commercial cuts and annual mowing in forests. In the second half of the 19th century, sizes of clear-cuttings and number of seed trees, leaved behind cuts, were set by state rules of cuts published in 1870; in the same rules, also plowing (and even grain agriculture for several years) on clear-cuttings was recommended to improve tree seed germination. The effects of such land-use ways were detected in spatial structure and tree-layer species composition of the contemporary forests. Documents on fire history or purposeful tree planting have not been found yet. *Conclusion.* It is documented that contemporary forests of the Zvenigorod Biological Station have been formed under impact of cuts and regular mowing. The reported experience of document search and the review of published state forestry standards can be useful for planning further studies on land-use history concerned with other European Russian regions under similar landscape and historical conditions.

Keywords: forests within fluvio-glacial landscape, land-use history, archive documents, state forest landowning, forest trades.

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