

# **CURRENT NORTHERN EURASIA FOREST CONDITION: METHODS OF ANALYSIS AND RESTORATION OF NATURAL BIOTA IN PROTECTED AREAS. LITERATURE REVIEW AND RECOMMENDATIONS FOR REQUIRED RESEARCH IN PROTECTED AREAS**

**O. V. Smirnova**

*Center for Problems of Ecology and Productivity of Forests, Russian Academy of Sciences,  
84/32 Profsoyuznaya Street, Moscow, 117997, Russia  
E-mail: ovsinfo@gmail.com*

**A. P. Geraskina**

*Center for Problems of Ecology and Productivity of Forests, Russian Academy of Sciences,  
84/32 Profsoyuznaya Street, Moscow, 117997, Russia;  
Moscow Pedagogical State University, 6 Kibalchicha st., bldg. 5, Moscow, 129164, Russia  
E-mail: angersgma@gmail.com*

**Abstract.** The reconstruction of the verbal pre-anthropogenic Northern Eurasia forest cover has been proposed on the basis of paleontology and historical ecology data analysis. It was used as a basis for evaluating the ability of the reserves in the studied area to act as reference objects capable of performing the ecosystem living soil cover functions. The analysis indicated immense anthropogenic transformation of the Biota in this territory and the requirement for urgent measures to restore the full-fledged Biota of the reserves at the state and global levels. A list of necessary activities for the initial phase of Biota recovery in the modern protected areas has been proposed.

**Keywords:** reserves, paleoreconstruction, reintroduction, key species, phytophagous mammoth complex giants, Würm, “prehistoric pasture paradox”, “uncompensated Würm extinction paradox”.