

THE MONITORING OF THREAT TO AND POLLUTION OF THE FOREST ENVIRONMENT IN BIAŁOWIEŻA PRIMEVAL FOREST

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Partial results of a comprehensive monitoring research carried out over the whole Białowieża Primeval Forest, conducted by Forest Research Institute, Natural Forest Department in Białowieża in the years 1986–2001, are presented. As a measure of potential threats the level, direction of changes and spatial distribution of dry and wet air pollution (technical monitoring) were used. The measure of bioindicators response to changes in the environment is the estimation of the level of macroelements and cumulation of sulphur and heavy metals in chosen plant bioindicators (two-year-old needles of *Pinus sylvestris* L. and moss *Pleurozium schreberi* (Brid.) Mitt. (biolog-

ical monitoring). The relations between chemical composition of bioindicators and variability of air pollution and climate conditions were looked for.

The present level of air pollution in Białowieża Primeval Forest is low. Despite changes in quality and total sulphur and nitrogen deposition and the prognosis of reduction of pollutants' emission up to the year 2010, the forest environment is threatened by increasing acidity. The spatial distribution of biotic and abiotic parameters over the whole area of Białowieża Primeval Forest allowed to conclude that the threat is the lowest in Białowieża National Park.