

A method for indication of atmospheric air pollution by the determination of polyphenol content in muscoid gametophytes involves plant material gathering, material division into equal parts, replanting graft samples into selected monitoring points (experiment exposition takes 3 months). Then gathering for in vitro analysis is carried out. Initial statistical analysis of experimental data and estimation of degree of ecological environment pollution is carried out. Indicator plant of *Amblystegium subtile* (Hedw.) Schimp species is used. Content of polyphenols is measured by spectrophotometric method using Folin–Ciocalteu reagent in each sample. Concentration of polyphenols in moss samples is compared with content of those substances in moss sample selected from reference area.