Foreword

The 24th volume of *Ecological Questions* contains seven scientific papers, including four papers written by Polish and another three by foreign authors. The papers are divided into two groups according to their content. The first group of papers relates to the analysis of natural subsystems, while the papers from the second group discuss the implementation of innovations and the principles of sustainable development in the social and economic subsystem using a natural subsystem.

Natural subsystems presented in these papers develop under varying human impact. They include systems with natural features, located in forest and waterside areas, far from urban and industrial centres. Some of them develop in areas of mines and gravel quarries in suburban zones, while others in urban areas.

The presented analyses were carried out at different spatial scales, both at micro- or mesoscale based on direct field observations and macroscale – over large areas using satellite remote sensing methods.

The purpose of the conducted analyses of natural systems was, inter alia, to answer the question: to what extent anthropogenic factors, together with the natural ones, affect the biodiversity and spatial distribution of species from different taxonomic groups, i.e. lichens and vascular plant species? As part of the research on innovation and sustainable development, an attempt was made to answer the question how biochar – an useful material produced by modern technology, and some sectors of the economy such as urban forestry and urban agriculture may improve the standard of living and food security of man in the city. Another study from this group, based on the analysis of educational programmes and papers published in numerous ecological journals, attempted to answer the question about the role of environment-related knowledge in the sustainability education.

We hope that the data and discussions will serve as a reference point for comparisons of observations made in other places and at other times.

Editorial Board