## **EDITORIAL**



## Dear readers,

Our journal has entered into 63rd year of its publication. Its content and formal layout has changed during its development. In spite of of several societal changes in our region over the past six decades it always tried to focus on purely professional issues excluding the signs of political impacts or tendentiousness. Let us mention here that the original title of the journal was Lesnícky časopis (in English: Forestry Journal). In 1993 the name changed to a bilingual title Lesnícky časopis - Forestry Journal. In 2016 the editorial board of the journal suggested to change the title to Central European Forestry Journal. This change has taken place since the first issue of the current year. As the title indicates, the journal has an ambition to present not only the works of the authors from the former Czechoslovakia, but also from other European countries, mainly from the region of Central Europe. Although the political, geographical, or cultural definition of the Central European region is inconsistent, the editorial board of the journal expressed an idea that the magazine should serve as a publishing platform (apart for the Czech Republic and Slovakia) especially for Austria, Germany, Hungary, Poland, Romania and Ukraine. This should not be taken as a strict definition of contributors, as the journal remains open also to other European countries.

In our country the age of 63 years represents the retirement age in human life, and hence the end of the productive employment period. However, we firmly believe that our journal has not reached this stage yet. We hope that it does not limp nor look for a place where it could sit down and recall past successes or failures. We want to move on, move forward, and improve. The step forward should be another change in the journal, namely the exclusion of short forms of contributions, i.e. book reviews, reports, and chronicles. Although this type of contributions has also an informative significance, modern scientific journals focus exclusively on articles that bring research results and findings. Therefore, starting from the volume 63 we will publish exclusively original scientific papers and review papers.

Over the last years of journal publication we came to a conclusion that one of the ways how to attract the attention of contributors and readers is to periodically compile a special thematic issue. The first special issue was published four years ago (2013/3) and was focused on the results of the production and ecological studies at the research object of Vrchslatina. One year later another special issue (2014/1) dealing with drought impact on tree species as an inherent phenomenon of climate change was published. One issue in the year 2015 (2015/3) was devoted to disturbance and post-disturbance processes in forest ecosystems. And in the last year (2016/4) we focused on forest entomology.

For these reasons, we prepared this double-issue, which focused on these two main topics:

## (i) Properties of forest soils and soil-related processes,

## (ii) Carbon sequestration in forest biomass.

The double-issue contains 10 original scientific papers and 1 review paper. The papers were written by the authors from the former Czechoslovakia, as well as from Germany and the Great Britain.

The first thematic part consists of 6 contributions. The paper of *Lukac* in the form of summarisation and analysis of knowledge from the European region explains the interactions between soil biodiversity and environmental changes (primarily climate change). The author pointed out at the fact that the knowledge on soil biodiversity is far more incomplete than the information about the above-ground parts of forest ecosystems. Due to this it is necessary to deal with this issue, particularly in the context of ensuring forest ecosystem services. *Holik et al.* monitored the ammonification of arginine (one of the proteinogenic amino acids) in the soil under the spruce stand. They revealed a substantial impact of microclimate on the decomposition of this amino acid in the soil, which can be influenced by the thinning regimes in the stands. The works of *Homolák et al.* and *Bebej et al.* present results describing physical characteristics of soil, the role of the humus in the infiltration of water into the soil, and the transport of elements through the soil profile. Since all these soil characteristics affect ecological stability and productivity of forest stands, such research in the field of forest ecology cannot be omitted. Next *Hanajík et al.* investigated biochemical processes (dehydrogenase activity) in the soil at the post-disturbance area of the High Tatras. They revealed the impact of post-disturbance forest management on soil processes. *Cukor et al.* focused on carbon sequestration in the soil after afforestation of former agricultural soils. This issue is very serious from the point of mitigation measures against climate change.

At the beginning of the second part, the article of *Wellbrock et al.* who quantified carbon in tree biomass and soil in German forests is presented. They used two cycles of national forest inventory. These data allowed them to determine not only the static state, but also the changes in carbon stocks over the last ten years. Similarly, *Merganič et al.* quantified carbon stock in forest biomass at a national Czech level and at individual regional levels. The authors quantified the share of individual tree species and individual tree components. *Pechanec et al.* used possibilities of remote sensing (Landsat) for the estimation of above-ground biomass (or amount of sequestered carbon) in the Czech Republic. The work of *Šebeň et al.* focused on the quantification of carbon stock in living and dead trees of young beech and spruce stands. They confirmed the assumption that in the young dense stands with high tree mortality (due to competition) a large part of carbon is transferred from biomass to necromass and then by its subsequent decomposition to the atmosphere. The last paper of *Konôpka et al.* presents carbon amount in the above-ground vegetation biomass in the High Tatras 12 years after a large-scale wind-throw. The authors revealed that while the major part of carbon was sequestered in tree biomass, the substantial part of rotating carbon originated from the fall of ground vegetation.

The papers in this double-issue confirmed that soil is an important part of a forest ecosystem, either as a medium for biodiversity or as a carbon reservoir. Monitoring of physical, chemical and ecological relationships in the soil on one hand, and between the soil and vegetation on the other hand creates a knowledge base for optimal management that supports all forest functions. Apart from forest soil, forest biomass, particularly its dendromass is an important reservoir of carbon. In comparison with soil, forest managers can affect tree biomass more effectively whether with regard to carbon balance or biodiversity. Obviously, both components of forest ecosystems are mutually connected and every treatment in a forest stand (affecting the tree part) affects soil conditions.

At the end of our Editorial we would like to remind of the upcoming anniversary. In the year 2018 we will celebrate 120th anniversary of the forestry research in Slovakia. We assume that our journal will react to this anniversary by publishing another special issue. At the same time, let us take this opportunity to thank all contributors and readers for their interest in the journal. We wish you and our Central European Forestry Journal many successful years!

Bohdan Konôpka Editor-in-Chief Co-Editor of the issue Erika Gömöryová Member of Editorial Board Co-Editor of the issue