



## FOREWORD

Dear readers of Lesnícky časopis - Forestry Journal, next year our journal will complete the sixth decade of its existence. During its life, the journal went through periods of plenty, but also lean times of financial instability – especially in the last two decades. In spite of these, the journal survived and gradually improved its reach and reputation. So much so that in 2013 it was selected to become part of the worldwide SCOPUS database. This milestone encourages us to strive for further improvements and to push for a version published fully in the English language. Since English is the global language of science, this step will greatly enhance the readership of our journal but also attract the interest of contributors from a variety of countries. We will continue to steer the journal towards topics relevant to the forestry sector, but also include new findings from relevant subjects such as hunting, climatology, soil science, environmental issues and similar.

At this moment, you are reading issue no. 3 of Lesnícky časopis - Forestry Journal, 2013. This issue is focused specifically on the research site Vrchslatina (southern part of the Veporské vrchy massive, Western Carpathians, Slovakia). This site was established in 2009 with a mission to focus and link-up a variety of research activities related to growth and competition processes in forest ecosystems. All field, laboratory and other effort at this site was financed through two scientific projects supported by the Slovak Research and Development Agency (SRDA), namely: “Comparative studies on allocation of net primary productivity in beech a spruce stands” (APVV-0268-10) and “Effect of intra- and inter-specific competition on production ecology beech and spruce stands” (APVV-0273-11). As the titles suggest, the objects of research were two most common forest tree species found in Slovakia: European beech and Norway spruce. The research site is composed of forest stands in the early stages of development. The research activities carried out here are focussed on production, ecology, physiology, and production ecology of the abovementioned tree species at tree and stand levels. Besides beech and spruce, researchers focus on grassy communities with the dominance of bushgrass (*Calamagrostis epigejos*).

This issue of the journal was prepared by numerous authors, mostly plying their trade at the National Forest Centre, Forest Research Institute Zvolen, Slovakia. The “heart” of this issue comprises six original papers and one discussion paper which details the overall aims of

scientific investigation, describes the research site and gives an overall view of the field and laboratory observations carried out at the site. The original papers show results of the research activities accomplished in the years of 2009–2012. For instance, results quantifying net primary productivity (NPP) in the beech and spruce young stands feature prominently. Structure and inter-specific differences in the NPP are shown and explained. Standing stock and production of fine roots in the beech and spruce was estimated and inter-annual differences in fine root production were analysed in terms of climatic conditions. Height and diameter growth in the spruce stand was analysed in harvested trees (dendrochronological approach), as reflected by biosociological position of the trees and resulting competitive pressure in the stand. The authors also focus on seasonal fluctuation and inter-annual differences in diameter increment in the beech and spruce. They compare soil respiration intensity between the young beech, spruce and grassy stand. Seasonal fluctuations of soil respiration are broken down in relation with the courses of soil temperature, moisture and precipitations. Moreover, standing stock and annual production for both below- and above-ground biomass in grassy community, neighbouring to the beech and spruce stands, were quantified.

Original papers published in this issue allow for a comparison of productive, ecological and physiological properties of forest stands (beech, spruce) and forest-free area (grassy stand dominated by bushgrass). The papers clearly show that climatic condition in the specific years influenced key physiological and growth processes in all observed ecosystems.

Dear reader, this is our first attempt at a “thematically-specialized” issue of the journal. Should the format receive a positive feedback – and we do invite you to let us know your opinion – we do not exclude focusing future issues around a single topic or an experiment. We trust that the results published in this current issue of the journal are of interest to be a large body of researchers, lecturers and forest practitioners not only in Slovakia, but far beyond its borders.

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