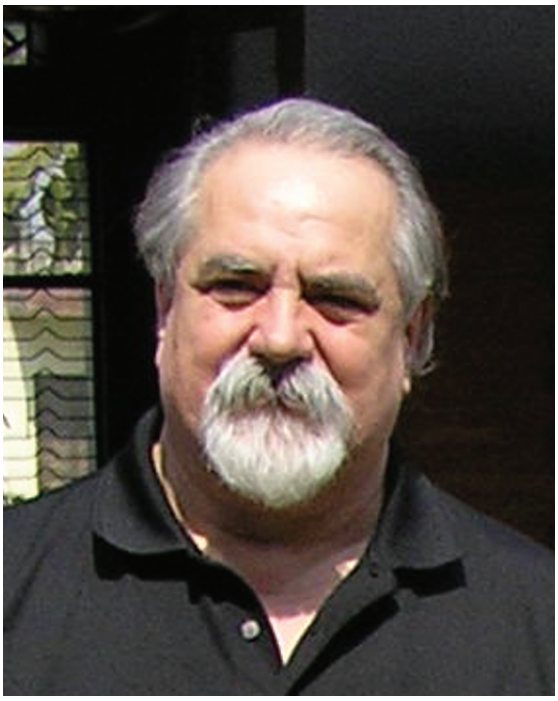

Zoltán Tuba

16 May 1951 – 4 July 2009

Professor Zoltán Tuba, one of the leading plant scientists of his generation, died at the age of 58 from a long and serious illness, as the head of Institute of Botany & Ecophysiology (the former Department of Botany and Plant Physiology), Szent István University, Gödöllő, Hungary.

He was born in Sátoraljaújhely (NE Hungary) in 1951. He finished grammar school studies in Sárospatak nearby his birth town. In the course of his lifetime his studies and life was connected with regions far from his birthplace but he participated continuously in the scientific and cultural life of Sárospatak by raising a foundation and supporting science-related activities of grammar school students. His last scientific work, the monograph "Bodrogköz", was also initiated by his enthusiasm towards the natural and cultural heritage of this region near the River Bodrog.

He obtained a Dr.Univ. degree in biology from József Attila University of Szeged (1983), a CSc. degree (1985) and DSc. degree (1998) in biology from Hungarian Academy of Sciences. His scientific career started at the Ecological and Botanical Research Institute of Vácrátót. After conducting research there for a few years, he joined the Szent István University as a lecturer in plant physiology in 1985. Between 1992 and 1995 he was also invited as a guest professor for full semesters by Universities of Karlsruhe, Edinburgh and Exeter.

At the very beginning his research activity was connected with forest ecopysiology, he described the pigment structure at supraindividual level of a deciduous forest community. He was the first who revealed the traits of pigment structure of a semiarid grassland community.

He was appointed head of the Botanical and Plant Physiological Department at Szent István University, Gödöllő in 1997. He initiated a remarkable transformation of the Department by bringing plant ecophysiology into the focus. He strengthened the position of his department by participating in several international projects, attracting and retaining talented students and young scientists. In the late 90s, he and his colleagues established a field experimental station in the Botanical Garden of Gödöllő University on studying the effects of elevated atmospheric CO_2 on plant species of different life forms under chamber and FACE environments which has become one of the European research centres of plant ecology and ecophysiology. In the last period of his

career the scientific interest of Prof. Tuba and his research group turned towards the ecosystem scale' gas exchange and effects of global climate change on grassland ecosystems involving some methodological aspects of these fields, e.g. the applicability of eddy-covariance method. He also developed the new field of synphysiology.

Zoltán was an excellent organizer. He was very active in foundation of the Biology PhD School at Szent István University, Gödöllő and was appointed head of the School. He took part as a head or a member of organizer committees of several international and national congresses. He was elected as a member of committees of national and international societies in field of plant science and ecology. As an appreciation of his scientific activity he was nominated for correspondent member of the Hungarian Academy of Sciences but he passed away before the next and expected successful turn of this election process.

He had a wide interest in different disciplines of botany; he trained many PhD scholars on different aspects of plant ecological research such as grassland and agro-ecosystems, ecophysiology of bryophytes and other desiccation tolerant plants, bioindication of environmental pollutants.

Zoltán devoted himself very much to the ecology and ecophysiology of desiccation-tolerant plants. He cooperated internationally with several institutions in this field and travelled to different regions for collection of plant materials and field measurements.

He was very creative in setting up plant physiological studies, he revealed with his co-workers in a series of dehydration and rehydration experiments that the structural and molecular disorganisation of cells and chloroplasts in desiccation tolerant plants during severe water loss results in formation of desiccoplast. He also described several ecophysiological traits of desiccation tolerance among the tracheophytes inhabiting extreme habitats in e.g. tropical regions. His work in this field provoked the development of a new discipline „the Inselberg Ecophysiology".

Zoltán received several awards and honours during his lifetime. His scientific influence is reflected in a strong publication activity. Over the course of his successful career Prof. Tuba published more than 110 scientific papers in national and international journals, and authored and edited several books, including textbook of Botany, and conference proceedings. He was the member of Editorial Board of Community Ecology, Acta Botanica Hungarica, Journal of Crop Production, Photosynthetica, Botanikai Közlemények (Botanical Letters).

His family, friends and colleagues dedicated him a memorial ceremony in Sárospatak at the riverside of River Bodrog River on 17 July 2009 where his ashes were spread into the water of his beloved River. The scientific community has lost an excellent researcher, esteemed colleague and a dear friend. Zoltán Tuba is survived by his wife, Ildikó, and their two sons.

Ilona MÉSZÁROS (*Debrecen*)
Zoltán NAGY (*Gödöllő*)