

Tuba, Z., Nagy, Z., Szente, K., Raschi, A.: **Grassland Ecology and Ecophysiology under Elevated Atmospheric CO₂ and Temperature.** - Abstr. Bot. (Budapest) 21: 219-336, 1997.

This volume of the journal of *Abstracta Botanica* contains papers presented at the international workshop "Grassland Ecology and Ecophysiology under Elevated Atmospheric CO₂ and Temperature" held in Budapest (August 20-25, 1995) within the frame of EURECO'95 and invited contributors from Europe. Although many conferences, meetings and workshops on global environmental changes have been organized in the last few years, this international workshop was especially focused on global change effects on grasslands. The workshop brought together participants from ten countries from whole Europe.

Grasslands represent a widespread vegetation type at the world scale. In Europe alone, they occupy at least 40 million hectares, ranging from intensively managed sown swards to natural communities, whose area increased due to abandonment of agricultural land. It was recognised that the carbon dioxide concentration in the Earth's atmosphere has been increasing in the past two centuries from about 280 to a present 350 $\mu\text{mol mol}^{-1}$, and is expected to reach more than twice the pre-industrial concentration in the next century. The increased CO₂ concentration influenced not only climate but

physiological processes of the plants, too. Consequently, a lively discussion among scientists, politicians and lay public exists about the effects of this change. However, our knowledge of the response of grasslands to global environmental change is rather poor, as a consequence of both the complexity of grassland ecosystems, and the limited attention to grasslands has been devoted, till now.

The brief overview written by Z. Nagy *et al.* aimed to relate the contributions to existing knowledge in the field of vegetation responses (growth, species composition, C-storage, water relations, some biochemical aspects and future research needs) to global climatic change. The further papers contributed to the role of plant-soil interactions, nutrient status, dry mass and energy partitioning, plant canopy development, photosystem 2 activity and carbohydrate metabolism.

I can recommend presented volume most warmly to those explicitly involved in this research area, to researchers working in ecology, ecophysiology, as well as in the other areas of plant biology. Presented papers also provide useful information for environmental and agricultural sciences.

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