Rychnovská, M. (ed.): **Structure and Functioning of Seminatural Meadows.** - Academia, Praha 1993; Elsevier Science Publishers, Amsterdam 1993. 386 pp.

Grasslands are an integral part of the European cultural landscape, irrespective of the degree of its agricultural exploitation. It is rather surprising that the functioning of grasslands has been relatively little studied. Therefore the readers certainly welcome this book where the team of authors participating in the field project Number 91 of the Man and the Biosphere programme attempted to characterize the functioning of grasslands using the example of a mesophytic meadow situated in the submontane region of Central Europe. The information obtained can be applied whenever the multifunctional role of grasslands in the landscape is considered.

The classification of grassland communities is based on their floristic composition and on an analytical evaluation of their habitats, especially climatic and edaphic factors (Chapters 1 - 5). The structure of populations of plant communities, the contribution of individual species as well as the vertical distribution of aboveground biomass and assimilatory area of individual plants is very important for determination of primary production (Chapters 6 and 7). Chapter 8 is devoted to the structure of underground biomass. A detailed study of anatomy and morphology of leaves during ontogeny of dominant grasses represents Chapter 9. The dynamics of forage production and efficiencies of utilization of nutrients in native and renovated grass stands are compared in Chapter 10. Changes in photosynthetic and respiratory characteristics of leaves and inflorescences of the main grasses and dicotyledonar herbs due to environmental factors (Chapter 11) can help to find limiting factors of primary production. As water supply is one of the main factors controlling the type and productivity of grasslands, Chapter 12 is devoted to the plant-water relationships. In addition stand water balance is described in Chapter 17. Similarly, carbon and nitrogen cycling in grassland ecosystems are described in Chapters 15 and 16. In addition to primary producers also consumers and microorganisms are important in each ecosystem (Chapters 13 and 14). Chapter 18 evaluated the properties of soil that determine its fertility. The last two chapters deal with exploitation and management of grasslands in the Bohemian-Moravian Uplands and the functioning of grasslands in the landscape.

The book is well arranged and produced. The readable text is accompanied by many figures and tables that mainly represent own results of authors.

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