

PRINCIPY LESNICKÉ TYPOLOGIE VE SVĚTLE DYNAMIKY TEMPERÁTNÍCH PRALESŮ

PRINCIPLES OF THE FOREST ECOSYSTEM CLASSIFICATION IN THE LIGHT OF THE DYNAMICS OF TEMPERATE OLD-GROWTH FORESTS

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ABSTRACT

Forest Ecosystem Classification (including Geobiocenology) is generally focused on classification of potential vegetation. The used approach should be ideally in harmony with observed dynamics of old-growth forests in specific region because these sites represent an important background used for construction of analogies applied in predominated unnatural forested or even deforested areas in Central Europe. In current study we aim to compare observed long-term changes in old-growth forests as well as revealed feedbacks between components of forest ecosystems with principles and methods of the Czech Forest Ecosystem Classification. Case studies originate from the Central Europe (in particular from the Czech Republic, Romania, Ukraine, Poland, Slovakia) and US (Kentucky, Michigan). Case studies were primarily focused on (i) quantification of pedocomplexity and detection its sources, (ii) determination of forest disturbance history, (iii) tree-soil interactions (including impact to biogeomorphology and soil evolution theory), and (iv) interactions between tree species. Our results suggest that the validity of some rules used in process of application of the Czech Forest Ecosystem Classification may be limited.

Key words: Forest Ecosystem Classification, dynamics of old-growth forests, pedocomplexity, disturbance ecology, biogeomorphology, tree-soil interactions, soil evolution theory.