
SECTION I

Introduction to Analysis of Seasonal Cycles of Water, Carbon, and Minerals through Forest Stands

IN SECTION I, we provide a detailed analysis of the daily and seasonal cycling of water, carbon, and minerals in undisturbed forest ecosystems. This stand/seasonal level of analysis allows us to introduce methods, basic principles, and equations that support extrapolations to broader time (Section II) and spatial (Section III) scales. The analyses also serve as the foundation for the most sophisticated kinds of ecosystem simulation models, those that attempt to address the interactions of simultaneous changes in climate and the availability of critical resources on selected ecosystem processes.