Landsberg, J.J., Gower, S.T.: **Applications of Physiological Ecology to Forest Management.** - Academic Press, San Diego - London - Boston - New York - Sydney - Tokyo - Toronto 1997. 354 pp. US $ 69.95. ISBN 0-12-435955-8.

The books published by the Academic Press in the series Physiological Ecology keep traditionally high standard. The reviewed publication is not an exception from this rule. The authors have a long-term experience in ecophysiological studies in trees. Their book is, therefore, an excellent compendium of recent knowledge of ecophysiological principles in trees with a special stress put on their implementation into practical forestry. The book is devided into ten chapters. Introductory ones deal with the description of vegetation zones over the globe, forest types and the climate to which they are adapted. Chapter 3 is devoted to forest canopy structure and the processes within the canopy (shoot expansion, development and distribution of leaf area, light interception, transpiration, heat absorption and emission, air flow, *etc.*). Following chapter focus on the components of water balance within forest ecosystem and points out the principles of water relations in trees. Chapters 5 to 8 deal with nutrient cycling in forests, carbon and nitrogen in particular. Leaf and canopy photosynthesis, respiration, and, finally, primary production are described in response to light, temperature and stomata opening. Very positive feature of the publication is an overview of recent production models used in forest science. The models are process-based, *i.e.* they involve an evaluation of crucial physiological processes which determine wood production in forest ecosystems. The models are briefly described, compared, and critically evaluated. Last but not least, the application of modern technologies using ecophysiology of forest trees, like modelling, remote sensing and geographical information systems (GIS), is described and more intensive use of the technologies in recent and future forestry is encouraged. The book reviewed is suited for tree physiologists, forest researchers, ecologists interested in plant production, and people from top managment of forest service. It can be also recommended to forest biologists and advanced students of forestry.

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