Ne'eman, G., Trabaud, L. (ed.): **Ecology, Biogeography and Management of *Pinus halepensis* and *P. brutia* Forest Ecosystems in the Mediterranean Basin.** - Backhuys Publishers, Leiden 2000. 408 pp. ISBN 90-5792-055-2.

Pinus halepensis and *P. brutia* represent two of the most important coniferous forest species in Mediterranean countries. Huge body of information about them was obtained during years of research. Thanks to the support of Jewish National Fund, Oranin College, and Haifa University, scientists were able to organize the MEDPINE workshop (Carmel 1999) and to publish this book. Almost fifty authors mostly from Mediterranean countries namely Israel, Greece, France, Italy, Spain, and from the USA, UK and South Africa presented here altogether 29 papers.

Main chapters of the book are devoted to taxonomy and autecology, pine forest ecosystem, fire ecology, and afforestation and antropogenetic effects. From taxonomical viewpoint authors focused on palaeoecology in the light of palynological and archaeobotanical data and inter- and intra-specific diversity. Mediterranean pines were evaluated also as invaders in the southern hemisphere. Substantial part of the book concerns reproduction, sexual allocation and gender segregation, serotiny, seed dispersal and seed predation, soil seed banks in *P. halepensis* and *P. brutia* forests, and ecophysiology of seed germination. Ecophysiology of water relations (especially impact of drought and flooding) and photosynthesis is also briefly described. A separate contribution considers wood structure and the ecology of annual growth ring formation.

Analysis of ecosystems include plant composition and plant species diversity in Mediterranean pine forests. Pine stand dynamics in relation to water balance and disturbance was evaluated using mechanistic model. Litter production and decomposition in pine forests and study on mycorrhizas and arthropods characterize soil compartment. From the zoological viewpoint, authors describe the phytophagous insect fauna, passerine bird communities, and small mammal communities.

Irrespective of the fact, that *P. halepensis* and *P. brutia* mostly grow rather close to the coast, even here the industry is unfavourable for biota, causing air pollution impacts on pine forests. However, most typical phenomena endangering dry Mediterranean pine forests during hot summers are forest fires. The effects of burned pine trees on post-fire regeneration, post-fire regeneration in west and east Mediterranean regions, and the management of burned forest are addressed in a substantial way. This topic also includes fire prevention and management policies.

Another phenomena typical for Mediterranean forests are their multipurpose uses, often traditionally combined with agroforestry and silvopastoral management. Actual problems represent management of planted pine forests, based on long-term past experience, but oriented on present and especially the future.

More details on tree and stand water consumption for species growing in extremely dry regions as well as aboveground and underground pine architecture is still missing and would help in this respect, but this will be certainly provided by following studies. Application of SI units throughout the book is recommendable. In any case, Gidi Ne'eman and Louis Trabaud did a very good work when editing the book, which provides a comprehensive amount of complex and valuable information. This can serve to scientists as well as to foresters and landscape ecologists to solve their theoretical and practical problems and thus deserves a significant attention.

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