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BOOK REVIEW

EVANS, D. D., THAMES, J. L. (ed.): WATER IN DESERT ECOSYSTEMS. (US/IBP Synthesis Series 11). — Dowden, Hutchinson & Ross, Inc., Stroudsburg 1981. Academic Press, New York. 280 pp. US $ 35.00.

This book is one of the series of volumes reporting on the research results of the U.S. scientists participating in the International Biological Program. Thirteen papers presented here not only summarize the experimental results concerning the hydrological characteristics of deserts, which were a part of Desert Biome Program of IBP, but also briefly review the present knowledge in this field. The hydrological processes involved are precipitation entering the system, interception, retention and detention on the soil surface, infiltration and evaporation at the soil surface, transpiration by plants, transport of water vapour out of the system, and runoff. Of special interest to the readers of Biologia Plantarum will be the papers dealing with potential and actual evapotranspiration under desert conditions, and morphological and physiological characteristics of desert plants and their adaptations to limited and unpredictable water supplies. Main attention is given to the modelling of evapotranspiration as well as water flow in the whole soil-plant-atmosphere system. The comparison of different measuring techniques is also significant. This detailed study of hydrological properties is very important for a better understanding of desert ecosystems and in searching the possibilities how to employ the arid regions (more than 17% of the earth's surface) for intensive agriculture.

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