

**LANDSCHAFTSÖKOLOGIE: STAND DER DINGE,
PERSPEKTIVEN UND HERAUSFORDERUNGEN****LANDSCAPE ECOLOGY: STATE OF THE ART,
PERSPECTIVES, AND CHALLENGES**

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SUMMARY

Landscape ecology is based on fieldwork approaches of geo- und biosciences. Landscape ecology focuses on the theoretical construction of an «ecosystem *in* the landscape». The main topic of Landscape ecology is the landscape as it really exists. The model of the landscape is a complex of some subsystems, connected by diverse physical and chemical processes and energy flows. The model of landscape is called «landscape ecosystem model» and is based on so called «real reality» or «objective reality», not on virtual reality. Landscape ecology data monitoring is performed by observations and measurements in the geographic-ecological reality of the environment. The results may be quantitative or semi-quantitative. The data are used for (1) mathematic-statistical ecological models and for (2) branches of actual landscaping, too, e.g. cartography or decisions as to landscape planning and environmental protection.

The compartmentation and parametrization are important methodological problems of landscape ecological basic research in field and laboratory and practice, too. But full data recording and correct parametrization will be devaluated in case of an often used separative approach. This often results in a separate landscape ecosystem model, but not in an integrated model, which could be expected in ecological theory. Notice: The theoretical aim of ecology is to construct an integrated ecosystem model close to landscape reality. “Integrated” means a representative model connection between nature, technology and society in our environment.

Keywords: Ecology, Landscape ecology, Landscape ecosystem, fieldwork, ecological synthesis, parametrization, landscape ecological models, landscape ecological reality, Virtual reality

ZUSAMMENFASSUNG

Die Landschaftsökologie basiert auf geo- und biowissenschaftlicher Feldforschung. Sie ist auf das Konstrukt «Ökosystem in der Landschaft» fokussiert. Gegenstand der Land-