

Title of the symposium:

Biophysical Methods for the Quantification, Mapping and Assessment of Ecosystem Services

Detail of organizer(s):

Responsible

Name:	Bastian
Surname:	Steinhoff-Knopp
Email	steinhoff-knopp@phygeo.uni-hannover.de
Organisation/Affiliation:	Leibniz Universität Hannover
Telephone:	+49 511 762 4899
Country:	Germany
Address:	Schneiderberg 50, 30167 Hannover

Co-organizer(s)

Co-organizer

Name:	Benjamin
Surname:	Burkhard
Email:	burkhard@phygeo.uni-hannover.de
Organisation/Affiliation:	Leibniz Universität Hannover
Address:	Schneiderberg 50, 30167 Hannover
Country:	Germany

Symposium abstract

At least since the well-known Millennium Ecosystem Assessment and follow-up studies such as TEEB, IPBES and MAES mainstreamed the concept of ecosystem services to a broader community, the need for solid methods to map, assess and map ecosystem services has increased. Describing the benefits of ecosystems to the human wellbeing, common classification schemes group ecosystem services into provisioning, regulating & maintaining and cultural services. Especially the services of the first two groups have strong linkages to the biophysical structures, functions and conditions of ecosystems and their compartments. To determine the service provision in biophysical units, biophysical quantification methods and spatially-explicit methods to map them are required. Usually methods measure or model specific indicators to address a specific ecosystem service. By linking different methods, bundles of ecosystem services can be quantified and synergies respectively trade-offs can be identified and assessed. The selection of biophysical ecosystem service indicators and methods needs a clear foundation in ecological core concepts developed in landscape ecology and neighbouring disciplines (e.g. research on biodiversity, ecosystem structures, processes and functions).

The aim of this symposium is to discuss the state of the art of biophysical methods, available data and their utilisation in the assessment and mapping of ecosystem services on different spatio-temporal scales. It will show approaches used in actual studies and their linkages to landscape ecological thinking. In addition, indicators to monitor the state and trend of ecosystems and their services will be discussed.

How your symposia will improve landscape ecology science?

The quantification of ecosystem services in biophysical units is mandatory for their precise accounting and mapping. The symposium will show and reinforce the foundation of the mainstreamed ecosystem service concept in landscape ecological core concepts. We hope to come to a clearer understanding of the interlinkages between ecosystem conditions and ecosystem service supply.

Broad thematic areas

Broad thematic areas 1st choice: Ecosystem services

Broad thematic areas 2st choice: Landscape ecosystem functions and services

Free Keywords

Ecosystem conditions, ecosystem services, interlinkages, mapping, assessment