

ECOSYSTEM SERVICES – BRIDGING ECOLOGY, ECONOMY AND THE SOCIAL SCIENCES

Special Issue of Ecological Complexity

<http://www.elsevier.com/locate/ecocom>

Short title: Ecosystem Services

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Frame of the special issue: Joint Research on Human-Environmental Systems

The proposed special issue is the outcome of long lasting joint scientific activities and international co-operations focusing on research about ecological systems, human societies and interdependencies among both.

Human-environmental systems are challenged by current and upcoming environmental and socio-economic problems all over the world. Ecosystem degradation, resource depletion, conflicts or economic up- and downturns require integrative and innovative adaptive approaches to meet environmental, social and economic demands of today's and future generations and to fulfill rising scientific standards. To assess goods and services, which are provided to people by nature, the concept of **Ecosystem Services** has emerged since the 1990s. Due to the comprehensive consideration of various factors, the concept provides a valuable framework to define and analyze linkages and dependencies between natural and human systems. It has been used as a framework for influential research initiatives, such as the **Millennium Ecosystem Assessment** (2001-2005) which involved more than 1360 experts worldwide. Nevertheless, practical applications, methods for qualification and quantification

¹ lead guest editor

of individual services, models, indicators and the integration of additional system components are needed in order to apply and improve the concept of Ecosystem Services and to make it a useful tool for responsible **management of natural resources**.

The proposed special issue will provide **new insights** into the fields of Ecosystem Services and thus, improve the understanding of the dynamical and adaptive behavior of different human-environmental systems, their complex structures and functions. Recent theories and concepts from systems sciences, ecology and socio-economic research are integrated in the proposed special issue. The ecosystem service approach is analyzed for his application potential theoretically and in several practical case studies. The outcomes will further our understanding of **complex adaptive systems** and of critical thresholds for the support of sustainable management of natural resources and their capability to sustain **human well-being**. Contributors are scientists from different disciplines, experts in the field of ecosystem services, environmental managers and administrative board members all dealing with the improvement of our knowledge about human-environmental relationships in the framework of ecosystem services.

With regard to the **integration** of ecological, economic and social sciences and research on human-environmental systems, the following **key questions** emerged during the last working group meeting May 2008 in Salzau:

- Which methods are suitable for the assessment and evaluation of ecosystem services in different systems and on multiple scales?
- What is the role of biodiversity for the provision of ecosystem services?
- How can scientists and decision makers co-operate and how are the concepts and findings communicated best?

Instructions for authors

For the preparation of your manuscript, which should be of high quality and contain between 12-15 pages, please use the guide for authors provided by the journal's editors under: http://www.elsevier.com/wps/find/journaldescription.cws_home/701873/authorinstructions

Submission of papers

Please submit your papers only through the online submission system of Elsevier latest end of December 2008: <http://ees.elsevier.com/ecocom>

You have to select „Ecosystem Services SI“ when you reach the "Article Type" step in the submission process in order to get your paper placed correctly in the special issue.

If there are any questions, don't hesitate to contact one of the editors:

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Delivery schedule

- | | |
|---------------------------------|---------------------------|
| - Call for papers: | Oct 1 st 2008 |
| - Submission of papers: | Dec 31 st 2008 |
| - First review of papers: | Mar 15 th 2009 |
| - Submission of revised papers: | Apr 31 st 2009 |
| - Preparation of special issue: | June 2009 |

Ecosystem Services" Bridging Ecology, Economy and Social Sciences. *Ecological Complexity*, 7, 257-259.
<http://dx.doi.org/10.1016/j.ecocom.2010.07.001>. has been cited by the following article: ABSTRACT: Swamp Forests occur in permanently wet soils, with specific ecosystem which contributes to the conservation of biodiversity and water resources. However, there are many gaps in knowledge about the restoration of these forests. 2010. Ecosystem services " bridging ecology, economy and social science. *Ecological Complexity*. 7:257-259 39. Costanza, R. 2009. Science and ecological economics: integrating the study of humans and the rest of nature. *Bulletin of Science, Technology and Society* 29:358-373. 2008 54. Costanza, R. B. Fisher, S. Ali, C. Beer, L. Bond, R. Boumans, N. L. Danigelis, J. Dickinson, C. Elliott, J. Transdisciplinary systems science: toward a science of connection, integration, and synthesis. *Journal of Catholic Social Thought* 4: 331-354 68. Costanza, R. 2007. cDepartment of Life Sciences, Faculty of Science and Agriculture, University of the West Indies, St. Augustine, Trinidad and Tobago, West Indies; dSoutheast Asian Regional Center for Graduate Study and Research in Agriculture, University of the Philippines, Los Baños, 4031 Laguna, Philippines; eDepartment of Ecology, Evolution, and Environmental Biology, Columbia University, New York, NY 10027; fInstituto Multidisciplinario de Biología Vegetal (CONICET-FCEFyN), Universidad Nacional de Córdoba, Casilla de Correo 495, 5000 Córdoba, Argentina; gEnvironmental Science and Policy Program and Departments of Sociology and Crop and Soil Sciences, Michigan State University, East Lansing, MI 48864