

Risk and Decisions in Complex Bio-Systems

Notice of Ecological Risk Assessment symposium - Society for Risk Analysis
Ecological Risk Assessment specialty group (ERAsg) - Society for Risk Analysis (SRA)
SRA Annual Meeting - December 9-12, 2012 - San Francisco, California

Symposium Abstract

ERAsg would like to solicit ideas and volunteers to help in organizing an SRA symposium on the role of ecological risk assessment in sustainable development. Sustainable development implies integration of environmental, social, and economic considerations; moreover spatial and temporal dynamics plays a significant role in selecting management alternatives. Ecological risk assessment should be integrated in the mix of tools and methods required in environmental management, but current frameworks and applications are focused on assessment of contaminated sites and, to a lesser degree, other ecosystem stressors with metapopulation models. We would like to bring together scientists and engineers engaged in interdisciplinary studies of complex environmental systems, at different scales and stressors. The symposium encourages the submission of any work about the understanding and risk assessment of complex systems from the microscale to the continental scale. Particularly, the symposium encourages studies about real issues and empirically supported studies, with focus on management and applications in a sustainability perspective. Examples of topics in which risk should be a central element are coupled dynamics of built and natural environments, socio-economical analysis and modeling of natural resources, nanotechnology and nanomaterials in the environment, life-cycle assessment, bacteria biodiversity and consequences for health and environment, epidemics spreading in human and natural ecosystems, decision and risk analysis in water resources, and adaptive management practice. The symposium intends to emphasize Sustainability Science using a System Thinking perspective. Resilience of systems under climate change and anthropic stressors would be a central theme.

Other SRA specialty groups (Decision Analysis and Risk, the Engineering and Infrastructure, the Microbial Risk Analysis, the Risk Communication, and Emerging Nanoscale Materials) and members from other societies (AGU, ESA, Resilience Alliance, Institute of Biological Engineering, ICST) are encourage to attend the symposium. A book will be edited after the symposium that will assemble together the works presented or realized after the symposium. Alternatively, a special session in the journal "Environment, Systems, and Decisions" by Springer (formerly "The Environmentalist" <http://www.springer.com/environment/nature+conservation++biodiversity/journal/10669?detailsPage=press>) will be created. Your ideas and suggestions will shape the symposium theme and approach appropriate sponsors. Contact Dr. Matteo Convertino (mconvertino@ufl.edu) and Dr. Igor Linkov (igor.linkov@usace.army.mil).

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