

## ACES 2016 Organized Session Proposal

**Title:** *Ecosystem Services in Urban and Urbanizing Areas*

**Format Preference:** This will be a traditional 5-speaker session.

**Description:**

The session will cover ecosystem services in urban and urbanizing areas. These are some of the most important and challenging areas for the management of ecosystem services, since they are profoundly modified environments and house a majority of the world's population. Thus the local delivery of ecosystem services will influence the quality of life of an increasing majority of the planet's residents. At the same time, the delivery of many ecosystem services reaches well beyond the reference patch supplying services; the ways in which urban areas are structuring their immediate hinterlands can have profound consequences for the delivery of ecosystem services in very distant locations. The breakdown of disease regulation in one municipality can, through globalization, affect every other city on the planet.

Management of ecosystem services in both urban and non-urban areas is challenged by trade-offs in ecosystem services that can occur both locally and across scales. In arid environments, for instance, the need to manage water supplies by utilizing drought-tolerant landscaping can reduce the capacity of urban vegetation to regulate climate, exacerbating the urban heat island effect. Similarly, the need to ensure continued delivery of freshwater to local residents can compromise the interest of more distant people in the "water for nature" that would maintain habitats and genetic diversity.

In this session, we will focus on the conceptual frameworks and tools, case studies, and coalitions that inform effective management of urban ecosystem services. First we will focus on tools and conceptual frameworks and will describe some of the ecosystem-service trade-off and management decisions that affect urban ecosystems, and describe some of the tools used to assess ecosystem service flows and values. Next, we will discuss case studies that focus on interdisciplinary assessments of ecosystem services in Phoenix, Stockholm, and a southern hemisphere city (tentatively in Southern Africa). Lastly, we will discuss the challenges faced by managers in assessing and managing the flow of multiple services, emphasizing in particular the challenges of ecosystem services and disservices that flow across jurisdictional boundaries. Presenters in this session will be both ecologists and economists.

**Problem Statement or Question:** Identify a topical question, challenge, or subject related to ecosystem services. What are the most important problems that need to be discussed? Provide a short overview of the topic.

**Conference Themes:** The proposed session covers all four of the conference themes. Under *Landscapes, Geography, and Mapping* we will touch on landscape dynamics, the distribution of benefits, and scale issues. Under *Measures and Values* we will be discussing economic valuation of provisioning, regulating, and cultural services. Under *Drivers of Change* we will have a clear focus on urbanization, with a related focus on development. And under *Institutions and Decisions* we will have talks that focus on tools, and communicating with decision makers and stakeholders.

**Intended Audience:**

This session will present both current research and practical tools and applications, and are intended to be of interest to academic scientists and practitioners alike, particularly those working on or near urban systems. Audience members will be exposed to the most current thinking on both ecological flows of ecosystem services and methods for their valuation, and for understanding and managing trade-offs in ecosystem services.

## Session Agenda Outlining Presentation Format:

The session organizer (Ann Kinzig) will moderate this session.

### ***Ecosystem Services in Urban and Urbanizing Areas***

#### INVITED SPEAKERS

Charles Perrings, *Tools for Assessing Transboundary Flows of Ecosystem Services*

Thomas Elmqvist, *Assessment of Ecosystem Services in Stockholm, Sweden*

Jane Turpie, *Managing Urban and Peri-urban Estuaries in Sub-Saharan Africa*

Christine Alfsen-Norodom, *Communicating with National Governments on Issues of Urban Development and Ecosystem Services*

Jose Sarukhàn, *Global Assessments of Ecosystem Services*

#### **Session Organizer:**

Ann P. Kinzig  
Professor, School of Life Sciences  
Arizona State University  
Tempe, AZ 85281  
Email: [Kinzig@asu.edu](mailto:Kinzig@asu.edu)  
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#### **Qualifications of Organizer:**

Ann Kinzig has been conducting research on coupled social-ecological systems for nearly two decades, with over 75 publications focused on resilience, urban ecology, ecosystem services, the science-policy interface, and related topics. She is the co-director (with Charles Perrings) of the ecoSERVICES group at Arizona State University, and is a lead investigator on a John D. and Catherine T. MacArthur Foundation grant on Advancing Conservation in a Social Context. Kinzig was selected as the first American Association for the Advancement of Science's (AAAS) Roger Revelle Fellow, and in that capacity served in the Office of Science and Technology Policy in the Clinton Administration from 1998-1999. She is also an Aldo Leopold Leadership Fellow, and is an elected Fellow of the AAAS.

#### **List of Invited / Confirmed Session Participants:**

<b>Proposed Presentation Title</b>	<b>Presenter First Name</b>	<b>Presenter Last Name</b>	<b>Presenter Affiliation</b>	<b>Email</b>	<b>Confirmed or Invited</b>
Tools for Assessing Transboundary Flows of Ecosystem Services	Charles	Perrings	<i>Arizona State University</i>	<a href="mailto:charlesp@asu.edu">charlesp@asu.edu</a>	Confirmed
Assessment of Ecosystem Services in Stockholm, Sweden	Thomas	Elmqvist	<i>Stockholm University</i>	<a href="mailto:elmqvist@stockholm.edu">elmqvist@stockholm.edu</a>	Confirmed
Managing Urban and Peri-urban Estuaries in Sub-Saharan Africa	Jane	Turpie	<i>Percy Fitzpatrick Institute of African Ornithology</i>	<a href="mailto:turpie@percy.org">turpie@percy.org</a>	Invited / Tentative

Communicating with National Governments on Issues of Urban Development and Ecosystem Services	Christine	Alfsen-Norodom	UNESCO	<a href="mailto:christinean@unesco.com">christinean@unesco.com</a>	Confirmed
Global Assessments of Ecosystem Services	Jose	Sarukhàn	Universidad Nacional Autónoma de México	<a href="mailto:jose@unam.edu">jose@unam.edu</a>	Invited / Tentative