Resilience propositions on trial – a critical reflection on how and when diversity and learning enhance the resilience of ecosystem services

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Maintaining the resilience of essential ecosystem services (ES) is critical in face of the rapid global changes and substantial uncertainties that today characterize social-ecological systems (SES) at local to global scales. Various studies have provided important insights into factors that can enhance resilience in SES. However, we do not as yet have a synthetic understanding of the conditions under which different proposed factors are important for maintaining or increasing the resilience of critical ES.

This panel aims to thoroughly investigate evidence for and against two commonly-held factors for enhancing resilience - diversity and learning. Diversity is widely held to provide a source of options for responding to change and disturbance, while learning is an integral part of adaptive management approaches aimed at maintaining resilience. In this panel we critically reflect on how and when these two propositions, from which specific policies and strategies for managing ES are derived, have actually proven to enhance resilience of critical ES.

Panel discussions will be structured around a mock court setting: the two propositions are “on trial”. Each proposition will be brought to “court” by a defense team who will provide an expert assessment of how and when the particular factor enhances resilience of ES. After the defense team has presented their assessment it will be critically cross-examined by an opposition team. The audience will be invited to contribute additional evidence supporting or challenging each proposition. The intention of the mock court format is to stimulate critical discussion of the evidence supporting each proposition and highlight research needs for developing a more nuanced understanding of how and when different factors can enhance the resilience of ES.

The proposed panel is based on a working paper co-authored by the Resilience Alliance Young Scholars (RAYS) that investigates seven of the most common propositions for enhancing resilience of ES. The mock court format is based on similar structure that was successfully used to discuss a first draft of the working paper at the 2009 Resilience Alliance science meeting. The panel touches on all conference themes, but is particularly relevant to 1) Adaptation, resilience, vulnerability, and coping with change in SES, and 3) Knowledge, innovation and social-ecological learning.

Panel participants and papers:

Karen Kotschy, Shauna Burnsilver, Oonsie Biggs, Paul West, Brian Walker, Garry Peterson
Reinette Biggs, Maja Schlüter Vasilis Dakos, Shauna BurnSilver, Louisa Evens, Karen Kotschy, Anne Leitch, Lisen Schultz, Samantha Stone-Jovicich, Paul West – “A critical reflection on how and when diversity and learning enhance the resilience of ecosystem services”