On transformative change and urban resilience: lessons from social-ecological research in Stockholm

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Urbanization is a global multidimensional process paired with increasing uncertainty due to climate change, migration of people, and changes in the capacity to sustain ecosystem services. Alongside patterns of inequity, cities are growing increasingly unsustainable effecting ecosystems world wide. Calls are made to find “pressure points” in urban systems that could materialize a transformative agenda towards safer, more equitable, and resilient urban spaces. This paper articulates a set of statements of the role that urban ecology as academic discipline can play in exploring the transformative capacity of urban systems when viewed as composed of interlinked social-ecological processes.

Urban ecology has emerged as a multifaceted, inter- and transdisciplinary field with several streams of practice and thought. This paper builds on studies from Stockholm Resilience Centre that have viewed humans as active and intentional agents in social-ecological processes (departing thus from studies that merely treat humans as class/ethnicity groupings, or as anonymous drivers of pollution/development). Using these as entrypoints for discussing transformative agendas, the article will articulate the underlying logic of this approach, display some of its empirical findings and methodological innovations, and present key theoretical constructs that this research has offered to academic discourse.

A central message from this research is that urban ‘green’ spaces such as parks, forests, gardening plots, lakes and streams, that also demonstrate continous and sustained engagement by organized groups of citizens, are crucially important for transformation. On one hand, the engagement by active citizens can construct “protective stories” and a capacity to engage in conflict to negotiate urban planning processes so as to better support and articulate the various values of urban ecosystems (Ernstson and Sörlin 2009). Second, organized citizens can uphold important ecological processes. For instance, the social practice at thousands of community garden plots in Stockholm support pollination processes, which truly can be viewed as a social-ecological process (Colding et al. 2006). Third, by having continous and collective human engagement in local ecosystems, so called “social-ecological memory” can emerge, valuable in response to ecosystem changes (Barthel et al. 2010). Effectively, through such “social-ecological interaction spaces”, not only can habitats and ecological process be cared for to build management capacity across scales (Borgström et al. 2006, Andersson et al. 2007, Ernstson et al. in press), but urban nature can also become embedded as cultural narratives in everyday life so as to build awareness through a language that most people can understand, and potentially forge larger-scale urban ecological movements (Ernstson et al. 2008).
These theoretically informed findings pushes us to broaden research to include the many social and cultural dimensions of urban everyday life that interlink with urban ecological processes. Based on this, the paper ventures to articulate some new steps for research that involves urban social-ecological design and transformative collective action. Whereas the former includes research into property rights and urban green commons (Colding in press), the latter aims to understand the role of civil society in forging sustained political action to wrestle the many urban interests that also claim urban space (Ernstson accepted).