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# Urban Ecology Needs to Move Beyond the Low Hanging Research Fruits

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## Abstract

As cities around the globe continue to grow in both size and population there is an unprecedented call for information about urban ecosystems. Scientists, as well as many urban professionals, are now focused on addressing issues related to the conservation of natural resources and the development of resilient planning and building practices, while also providing a safe and healthy environment for humans. Historically urban ecosystems have not been the object of study by ecologists and thus there is a crucial lack of knowledge regarding the structure and dynamics of these human-dominated systems. In this presentation, I will argue that in order to effectively elucidate the multiple dimensions of urban ecosystems and create sustainable and resilient cities in the future, urban ecologists need to develop comprehensive ecological and sociological knowledge bases for cities with a range of sizes, developmental histories and at local, regional and global scales. Such knowledge bases expand our research questions beyond the scope of an individual city and begin to ask whether specific ecological patterns and processes are common to cities in general. When there are exceptions, a comparative approach also allows us to investigate what social, biophysical or climatic factors are moderating the observed responses. Finally, I will describe the need to collect and use more explicit question-driven measures of the urban condition in order to improve our understanding of urban ecological drivers (predictors), and record more detailed ecological responses to provide insights into the ecological mechanisms underlying our observed responses.

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