



November 2015

Cities and the Environment: Eight Years of Urban Ecology Research and Practice

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Recommended Citation

Strauss, Eric G.; Hunt, Laurel; Romolini, Michele; and Locke, Dexter H. (2015) "Cities and the Environment: Eight Years of Urban Ecology Research and Practice," *Cities and the Environment (CATE)*: Vol. 8: Iss. 2, Article 23.

Available at: <https://digitalcommons.lmu.edu/cate/vol8/iss2/23>

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Cities and the Environment: Eight Years of Urban Ecology Research and Practice

Since its inception, *Cities and the Environment* has sought to showcase a broad range of urban environmental research and practice. Thus, as we celebrate the closing of our eighth anniversary, the purpose of this paper is to remind (or, for some, introduce) researchers and practitioners of the aims and scope of the journal by describing the first eight years of its history, and to outline our vision for the next eight years.

Keywords

Cities and the Environment, urban ecology, urban environmental research

Acknowledgements

We thank Managing Editor Anne Buckelew for her contributions to this editorial and her tireless work to support the first eight years of the journal. We also thank Morgan Grove for a review of this article.

Cities and the Environment contributors and readers have likely noticed three new sources of online, open access urban ecology research. Earlier this year, *Frontiers in Ecology and Evolution* launched an Urban Ecology section (Pataki 2015), Oxford University Press introduced its *Journal of Urban Ecology* (McDonnell 2015), and Springer Open launched *Future Cities and Environment*. These are welcome additions to more traditional urban ecology journals like *Urban Ecosystems* and *Landscape and Urban Planning*, and their appearance suggests a certain level of growth and maturation of the field. This is an exciting time. It reflects the growing acknowledgement of the centrality of cities to the human future and the discipline of urban ecology. Cheers to the new journals in our discipline and a concerted hope for a collaborative expansion of both the communities we serve and the work we report.

In recent papers, urban ecology and sustainability scientists have made the argument that research on urban systems needs to examine ecology *in, of, and for* cities (Childers et al. 2014, Childers et al. 2015) and that the perspectives of practitioners are important to inform the development of urban ecology research (Tanner et al. 2014, Pataki 2015). We agree and that idea is in our founding DNA.

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CITIES AND THE ENVIRONMENT'S HISTORY AND VISION

Cities and the Environment began receiving submissions in 2007, with the aim of providing an international forum for urban researchers and practitioners to explore ecological theory, share relevant data and exchange best practices. As an open access, web-based journal, the goal was to reach the widest readership possible and to produce a scholarly environment for the audience to share ideas and findings that could contribute to continued positive urban transformations. We launched *Cities and the Environment* as part of a regional initiative called the Urban Ecology Collaborative with support from the USDA Forest Service and The Boston College Library. We remain indebted to them for their shared vision and trust in our fledgling endeavor. For the past four years, the journal has been supported by the USDA Forest Service, the Loyola Marymount University Library, and the Annenberg Foundation.

To date, *Cities and the Environment* has published 119 articles in a total of 11 issues. Six of these were special issues or contained specially focused sections, covering themes such as “Urban Pollinators and Community Gardens” (Strauss 2009) and “Urban Wildlife Research in Support of Conservation Management” (Lerman and Sonti 2015). The journal has been a home for conference proceedings, including special issue in 2010 “MillionTreesNYC, Green Infrastructure, and Urban Ecology: A Research Symposium” (Strauss 2010), which included traditional research articles as well as a section of conference posters. This special issue provided the opportunity for current research to reach an audience beyond the limited number able to attend the conference. These examples show the underlying approach of the journal to reach a readership of scientists and practitioners.

The journal articles span the ecology in, of, and for cities. Briefly, ecology *in* cities

focuses on traditional ecological structures and functions, but in an urban setting. Studying the ecology *of* cities is generally a more holistic approach where the city itself is the ecosystem under scrutiny and Homo sapiens is acknowledged to not only be part of the system, but is in fact the system's dominant species (Childers et al. 2014, p. 321).

In *Cities and the Environment*, research articles have covered topics such as water quality characteristics (Elliott et al. 2011), variation in coyote diets (Lukasik & Alexander 2012), and tree survival and growth factors (Jack-Scott 2012) that may be considered examinations of ecology *in* cities. There are also many examples of articles highlighting the ecology *of* cities, with research topics including desert city landscape sustainability (Martin 2008) and environmental justice related to urban tree canopy (Berland et al. 2015), park access (Miyake et al. 2011), and exposure to post-industrial contaminated land (Maantay 2013).

In addition, *Cities and the Environment* is on the forefront in showcasing ecology *for* cities, which is described by Childers et al. (2014, p. 321) as “using what we have learned about urban ecosystems to actively make cities better and more sustainable places to live.” The journal’s editorial board recognizes and encourages the two-way relationship between urban ecology research and practice. Accordingly, the journal often publishes articles that fit into “Pasteur’s Quadrant” of use-inspired basic research, which is differentiated from pure basic research and pure applied research (Figure 1, Grove et al. 2013). Specially focused sections such as the 2013 “Urban Forestry Practitioners Share All” (Leff 2013), and the current “Urban Vacant Land and Community Access” (Kremer and Hamstead 2015) issue contain both peer-reviewed research papers and practitioner’s notes specifically to highlight the connections between science and application.

Quest for fundamental understanding?	Yes	Pure basic research (Physicist Bohr)	Use-inspired basic research (Biologist Pasteur)
	No	--	Pure applied research (Inventor Edison)
		No	Yes
		Considerations of use?	

Figure 1. *Cities and the Environment* publishes papers that may be categorized as basic, applied and use-inspired research. People within parentheses epitomize the type of work presented in their particular cell. Papers belonging in Pasteur’s Quadrant are highly sought, as they demonstrate relationships between science and practice (From Grove et al. 2013 as adapted from Stokes 1997).

FUTURE

We are proud of the accomplishments of *Cities and the Environment* in the past eight years. We also recognize the need for this type of work will become more pressing. As we look forward, we intend to increase our publication rate to 2-3 issues per year, with at least one special issue or specially focused section. We believe a broad scope remains important and will continue to welcome submissions of research examining the ecology in, of, and for cities that is rooted in basic, applied, and use-inspired research paradigms. Our mission to marry research results to best practices, however, places a premium on papers with practitioner coauthors and advancing the ecology *for* cities, via use-inspired basic research (Figure 1). It is through this synergy that we can forward an international agenda of collaborative and interdisciplinary research and application. To this end, *Cities and the Environment* remains committed to an open access format, which allows us to make the journal available to a broad audience of readers and authors. This includes rapidly urbanizing countries that may not have library access to journal articles but that need to be considered and to participate in the development of urban ecological theory and practice (McHale 2013).

Cities and the Environment encourages submissions for book reviews, editorials, and opinions that serve to facilitate exchange and enhance the breadth and depth of our offerings. The multi-media and other digital supplemental information that we have the capability to present are just beginning to be fully exploited. For example, Locke and colleagues (2013) posted their data and a script to replicate their analyses. The non-linear nature of the journal provides a creative platform for untraditional data visualization or very data-intensive imagery. Interactive presentations are possible and encouraged. We are eager to work with authors who are at the vanguard of research and seek a novel platform to display the results of their research efforts.

In closing, we acknowledge that ecological resilience can only be achieved when cities are actively engaged. We believe that trans-disciplinary scholarship and praxis are precursors to developing the tools necessary to create a more resilient future for billions of human stakeholders. Here at *Cities and the Environment* we stand ready to support this mission by continuing to offer significant contributions to urban ecology and by providing the forum to turn ideas into action.

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