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### Managing Urban Ecosystems: An Introduction to the Special Issue

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## Managing Urban Ecosystems: An Introduction to the Special Issue

The following Special Issue includes practitioner notes that provide information about managing urban ecosystems. The aim is that the insights and strategies shared in this Special Issue will inspire and inform the work of practitioners across the country who are seeking to maintain and enhance the vital ecosystems that sustain cities.

### Keywords

Cities, ecosystem management, urban ecosystems, biodiversity, biodiversity planning

### Acknowledgements

We would like to thank the CATE editorial team for being receptive to the topic of this Special Issue, and for working to help publish it so it can serve as an accessible resource for all. Additionally, we thank the contributors of this Issue for providing their unique perspectives and approaches to managing urban ecosystems.

The majority of the human population is now living in urban areas (UNESDA 2018). In the United States (U.S.) alone, approximately 83% of the population lives in cities (which increased from 64% in 1950) and is projected to rise to 89% by 2050 (United Nations, Department of Economic and Social Affairs, Population Division 2019). The prevalence and geographic span of urban areas in the U.S. increased by 15% between 2000 and 2010, with cities currently covering over 106,386 square miles (roughly the size of the state of Colorado), which is expected to double by 2060 (U.S. Census Bureau 2012). Urban areas are often attributed to negative environmental impacts, such as habitat degradation, fragmentation and loss (Chase et al. 2020), making the management of cities and the ecosystems within them important for the state of the environment.

Urban ecosystems are critical for the health, well-being, and resilience of our cities and their residents—providing a range of benefits and ecosystem services, including air and water purification, habitat for wildlife, and opportunities for recreation and connection with nature (Elmqvist 2013). Despite this, urban ecosystems are often overlooked and undervalued. As urbanization continues to expand and the climate continues to change, managing urban ecosystems becomes increasingly important for human health and the health of the planet. Managing complex urban ecosystems requires integrating human and biological systems and this challenge is compounded by the lack of open source data and research (Pataki 2015).

This Special Issue of the *Cities and the Environment (CATE) Journal* elevates the importance of managing urban ecosystems, and explores various strategies and approaches that can be used to do so. The Issue brings together research, case studies, and practitioner approaches that highlight how to manage ecosystems and biodiversity in urban contexts. The aim is that the information presented in this Special Issue will be useful to practitioners and policy makers who are interested in learning more about urban ecosystem management, and that it will expand dialogue about how to manage urban ecosystems more effectively by providing valuable insight for those who are interested in preserving, protecting, and restoring such spaces.

The articles included in this Special Issue span a range of geographic areas across the U.S. and cover a variety of topics, including preserving nature ([Cullman et al. 2023](#)) and assessing green gentrification ([Jimenez & Maantay 2023](#)) in New York City, New York; addressing tree equity, investment, and health in Columbus, Ohio ([Hendon et al. 2023](#)); assessing the biodiversity benefits and cooling impacts of linear parks along the Los Angeles River ([Cooper et al. 2023](#)); creating a classification system for identifying ecologically and hydrologically unique reaches in the same river area ([Drill et al. 2023](#)); managing urban coyote populations in Southern California ([Weaver et al. 2023](#)); developing land use regulations to balance development with wildlife habitat and connectivity in Los Angeles, California ([Superfisky 2023](#)); and conducting a review of the sustainability assessment literature, suggesting the need for better alignment between urban sustainability goals and the indicators selected to measure them ([Cohen et al. 2023](#)). Collectively, these articles examine how urban ecosystems can be managed to improve their ecological functions and the wellbeing of urban residents.

By bringing together a diverse group of articles from different cities and contexts, this Special Issue offers a rich and varied perspective on the challenges and opportunities of

managing urban ecosystems. The aim is that the insights and strategies shared in this Special Issue will inspire and inform the work of practitioners across the country who are seeking to maintain and enhance the vital ecosystems that sustain cities.

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