

The benefits—and potential pitfalls—of urban green spaces

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With the rapid expansion of the urban landscape, successfully managing ecosystems in built areas has never been more important. However, our understanding of urban ecology is far from complete, and the data at hand are often patchy, leaving stakeholders without the tools they need to successfully manage human-affected ecosystems.

Writing in *BioScience*, Christopher Lepczyk, a biologist working at Auburn University, and his colleagues discuss the future of urban biodiversity, highlighting trends and raising questions whose answers will be crucial for successful "green" management. According to the authors, managers must recognize that urban green spaces "comprise a range of habitat types that cross a continuum from intact remnant patches of native vegetation, brownfields, gardens, and yards, to essentially terraformed patches of vegetation that may or may not be representative of native community associations." Understanding the diversity of these areas, as well as their connections with similar patches, will be essential for managers who wish to promote healthy [ecosystems](#).

As governments and other stakeholders embark on green [space](#) projects, great care will be necessary, caution the authors. Among the potential problems is chance of inadvertently creating "ecological traps," in which local restoration "may draw individuals to relatively low-quality habitats" that lack the scale and features to support the newly arrived migrant species. In fact, the authors point out, ecological restoration efforts have been identified as one of the "most frequent causes of ecological traps." The research and foresight to avoid these problems may yet be missing,

with urban green infrastructure on the rise "despite the fact that the effectiveness of green infrastructure projects is rarely evaluated."

Despite these challenges, urban green spaces will continue to be of great import for ecosystems and humans alike, say Lepczyk and his coauthors: Especially in light of the current political landscape, "urban green spaces provide opportunities for citizens to connect with nature, witness ecological processes in action, and potentially become scientifically literate citizens who make informed decisions regarding conservation initiatives and policy."

More information: Christopher A. Lepczyk et al. Biodiversity in the City: Fundamental Questions for Understanding the Ecology of Urban Green Spaces for Biodiversity Conservation, *BioScience* (2017). [DOI: 10.1093/biosci/bix079](https://doi.org/10.1093/biosci/bix079)

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