

# Biophilic Dimensions of Urban Biodiversity

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Biodiversity, while a lauded and important goal in a biophilic city, is not always neat or pretty. Researchers have been working over the past several years to try to understand human perception of and preference for various types and levels of biodiversity in cities, and connections between these perceptions and preferences to other indicators, such as human well-being and urban ecological health and connectivity.

Urban ecologists and environmental planners underscore the importance of biodiversity for city life, both non-human and human and are advancing new and creative ways to plan for and manage it (see, for example, the [City Biodiversity Index](#)). Empirical research, however, reveals mixed results in terms of human understanding of and preference for biodiverse urban landscapes. [Dallimer and colleagues \(2012\)](#) found through a series of surveys in Sheffield, United Kingdom that psychological well-being increased when people perceived that greater bio-

diversity was present, but that this did not correspond with actual levels of biodiversity. Conversely, [Qiu and colleagues \(2013\)](#) discovered using visitor-employed photography in Helsingborg, Sweden that participants in their study were able to discern greater levels of biodiversity, but stated preferences did not relate positively to areas of higher biodiversity.

Most recently, [Gunnarsson and colleagues \(2017\)](#) published a study exploring aesthetic perception of urban green space at six field sites in Gothenburg, Sweden. The researchers deployed a survey examining whether participants found the sites “Naturalistic,” “Rich in species,” “Lush,” or “Varied.” The researchers concluded, through a composite survey of aesthetic perception, sound perception, and importance assigned to trees and plants for perception of bird species that overall, perceived positive values of urban greenery (across the three scales) were highest where measured biodiversity was highest.

How much does it matter whether people prefer biodiverse urban landscapes? Nonhuman plants and animals might be just as entitled to urban space as humans, but humans are the ones who make the planning and policy decisions. Perhaps rather than seeking palatability or preference, planning goals might center around education and interpretation of biodiverse urban landscapes in ways that might intrigue or inspire critical thinking. In a recent review of studies related to perception of biodiversity in cities, [Botzat and colleagues \(2016\)](#) identify four gaps in present theoretical and methodological approaches that, if filled, might continue to deepen and enrich the applicability and interest of research results. These include expanding research beyond temperate climates, including informal greenspace along with designated forests and parks, including work at the species community or gene scales, and explicitly incorporating perceptions and views of people from diverse backgrounds and age groups.

While research to date does not prove clear and unequivocal connections between biodiversity and positive human perception and outcomes for human well-being, there are clearly promising directions and some evidence suggesting that people can derive value from increased biodiversity in cities. As urban planning efforts continue to adapt to changing urban conditions, both towards population increase and density and towards re-structuring and re-defining relationships between “natures” and “cities,” biodiversity will be a consideration at both the local and site scale and the scales of city and region. The studies mentioned here are only a fraction of the

current research on human perception of and benefits from urban biodiversity; it is an increasingly important issue in planning for nature in cities.

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