



SURE Research Publication Service

1) Reference of your publication:

Botzat, A., Fischer, L. K., & Kowarik, I. (2016). Unexploited opportunities in understanding liveable and biodiverse cities. A review on urban biodiversity perception and valuation. *Global Environmental Change*, 39, 220-233.

2) Hyperlink to the publication:

<http://www.sciencedirect.com/science/article/pii/S0959378016300528>

3) Abstract:

Many researchers and policymakers from various disciplines highlight the role of urban biodiversity in delivering ecosystem services to enhance human wellbeing in a rapidly urbanising world. This suggests powerful synergies between approaches that are often disciplinarily separated, aiming either at human wellbeing or biodiversity conservation. Strategies towards liveable and biodiverse cities would gain support from insights into the people-biodiversity interface in cities. Yet, the question of which scale of biodiversity (from ecosystems to genes) benefits urban people in general and different socio-cultural groups in particular, remains largely open. To assess the current scientific knowledge as well as potential for further research, we systematically reviewed literature on people's perception and valuation of urban biodiversity (200 studies). We also quantified the outcomes of studies in terms of the effects of biodiversity on valuation for studies that addressed biodiversity valuation below the ecosystem scale. We found that the current literature is critically biased in four ways. (1) Most studies cover temperate climates, while regions with the most pronounced urban growth are underrepresented. (2) Studies focus on urban forests



and parks while important informal greenspaces are largely neglected. (3) Biodiversity is mostly addressed at the ecosystem scale (habitat or land-use types) while diversity at the species community or gene scale—key issues in biodiversity conservation—is covered to a much lesser extent. Most studies below the ecosystem scale show positive biodiversity effects, but universal patterns are not apparent due to the scarcity and low comparability of research. (4) Almost no studies consider the cultural diversity of urban residents by systematically targeting people from different socio-economic and cultural backgrounds or specific age groups. Our review reveals critical knowledge gaps about the people-biodiversity interface in cities, both in approaching cultural and biological diversity ('biocultural diversity'). This shows unexploited opportunities and future directions in linking usually separated strategies on enhancing human wellbeing and biodiversity conservation in sustainable cities.

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