

SESSION DESCRIPTION

ID: T14d

Reframing Urban Rewilding through the lens of balancing ecosystem services and disservices

Hosts:

	Name	Organisation	E-mail
Host (s):	Anton Shkaruba	Estonian University of Life Sciences	anton.shkaruba@emu.ee
Co-host(s):	Ruthi Veibiakkim	Estonian University of Life Sciences	ruthi.veibiakkim@emu.ee

Abstract:

Currently, over half of the global population resides in cities, with projections indicating that this figure will rise to 70% by 2050 (Baldi et al., 2025, Calatayud et al., 2024, UNGC, 2016; World Bank, 2022). This demographic shift has placed significant pressure on infrastructure, public health systems and environmental resources requiring integrated approaches to urban sustainability. The EU, with its share of urban population over 70% (Eurostat) is one of the most urbanized regions in the world. Remarkably, its built-up areas expand significantly faster than population growth (Schiavina et al., 2022) and reached 3.6% of the EU land area in 2024 (Eurostat). To address the growing demand for ecosystem services in urbanized contexts, many cities worldwide, and particularly in the EU, have embraced urban rewilding as a cornerstone of their sustainability agendas, recognizing the wide-ranging ecosystem services (ES) that nature provides, including improving public health and wellbeing, regulating microclimates and enhancing social cohesion (Calderón-Argelich et al., 2023, Egerer et al., 2019, Tian et al., 2024, Zheng et al., 2023).

However, it is increasingly recognized that alongside with services, rewilding projects may be bringing undesirable aspects associated with urban nature. Some communities' experiences negative impacts (Veibiakkim et al., 2025), giving rise to the concept of ecosystem disservices (EDS) – outcomes of ecosystem functions and processes that have a negative impact on human wellbeing (Visintin et al., 2024). These include increased exposure to allergens, pests, diverse vectors, or poorly managed green spaces that reduce usability or safety (Ostoic et al., 2024, Visintin et al., 2024, Yeshitela, 2020); urban nature also proved to be a vehicle for invasive species to propagate, while mismanagement of rewilded areas brings even stronger EDS impacts (Veibiakkim et al., 2025). Recognizing and addressing these disservices does not undermine the importance of urban rewilding, it strengthens it by ensuring that interventions are designed to be inclusive, context-sensitive and socially responsive.

Balancing the benefits and undesirable aspects of urban nature becomes a considerable challenge for contemporary urban planning and governance. This rebalancing requires a paradigm shift in how urban planning, management and governance are conceived and implemented. It calls for a shift from technocratic, top-down, expert-driven planning approaches (Ertiö & Bhagwatwar, 2017) toward participatory, adaptive and community-informed planning approaches that reflect the diverse needs, values and lived realities of urban residents (Brokking et al., 2021, Ertiö & Bhagwatwar, 2017). In many cities, marginalized groups are disproportionately affected by environmental burdens, have limited access to the benefits of green infrastructure and often lack meaningful influence in planning decisions. Target 7 of Sustainable Development 11 reflects this growing shift in planning paradigms from traditional top-down approaches toward more by calling for the 'provision of safe, inclusive and accessible green and public space for all, in particular for women and children, older persons and persons with disabilities' (Calderón-Argelich et al., 2023, Simone Borelli et al., 2022) highlighting the need for embedding equity and accessibility into every stage of planning.

A re-natured area valued for its biodiversity, for example, might be avoided by some residents who perceive it as unsafe or unwelcoming. Similarly, a new green corridor may bring ecological value but limit accessibility for certain communities. Understanding these social dimensions including perceptions of safety, belonging and place attachment is key to ensuring that benefits of nature in cities are meaningful, equitable and shared by all. Integrating both ecosystem services and disservices and finding a balance between the two into planning and management allows for more inclusive and resilient cities, where urban greening supports wellbeing, strengthens communities and enhances environmental performance.

Goals and objectives of the session:

This session therefore seeks to advance interdisciplinary dialogue on how cities can develop and manage rewilding projects in ways that maximize ecosystem benefits while reducing potential disservices. We invite contributions that explore conceptual, methodological and practical approaches to balancing ES and EDS in diverse urban contexts. Central to this discussion would be approaches that integrates community knowledge, stakeholder collaboration and adaptive experimentation to co-produce and resilient urban green solutions.

By bringing together scholars, planners and policymakers, this session aims to bridge ecological and social perspectives on urban greening. It will examine how ES frameworks can evolve to better account for justice, accessibility and lived experience, fostering cities that are not only ecologically sustainable but also socially equitable and emotionally connected.

Through this exchange, we seek to reimagine urban nature as a shared, dynamic and co-created space where both benefits and burdens of greening are consciously balanced in pursuit of truly sustainable urban futures.

We seek contributions that:

- Advance conceptual and methodological understanding of the relationship between ecosystem services and disservices in rewilding projects and in broader urban contexts
- Explore participatory and co-creative approaches that integrate local knowledge, stakeholder collaboration and citizen engagement in planning and management of rewilding and other urban greening projects. Emphasis on co-production methods such as citizen science, living labs, participatory GIS and community-driven monitoring systems.
- Present practical designs, strategies and governance models for designing rewilding and other urban greening projects that are both ecologically effective and socially inclusive.

Planned output / Deliverables:

The session aims to generate tangible outcomes that advance understanding of how ecosystem services (ES) and ecosystem disservices (EDS) can be balanced within contemporary planning and governance frameworks. By applying this perspective, the discussion seeks to identify ways to maximize the ecological and social value of urban rewilding projects while preventing or mitigating potential negative responses. Drawing on interdisciplinary dialogue, the session will produce both conceptual insights and practical strategies for the design, management, and governance of inclusive urban green spaces that promote wellbeing, ecological resilience, and social equity.

Session format:

After the topic introducing and topic starter presentation by co-hosts, talks by other session participants will follow with 15 min allocated for each talk and 5 min for Q&A. At the end of the session the co-hosts will wrap up the session with their summary and observations and offer discussion points based on the contributions and Q&As. A potential special issue based on session contributions will be discussed as well.

Voluntary contributions accepted:

Yes, I allow any abstract to be submitted to my session for review

Related to ESP Working Group:

TWG 14 – Application of ES in Planning & Management