

The critical role of biodiversity in urban sustainability – Conceptual Chapter

This chapter contributes new thinking regarding the role of urban biodiversity by introducing and developing the concepts of “nuration” and “naturalizing cities”, which aim to blend nature more broadly and deeply into urban life. Using biodiversity as a central measure of urban sustainability, the chapter will outline ways to promote and understand urban biodiversity, the ecosystem services that it provides, and biological functions in cities. The use of examples from cities in the Mediterranean basin will give the finishing touch while aiding in the understanding of the approach introduced. The chapter also proposes a new way of understanding biodiversity in cities, through a newly devised urban biodiversity index that can serve as a toolbox and a guideline for urban biodiversity managers in the Mediterranean region.

Barcelona: Wooded City between the Forests and the Sea

Barcelona is renowned for its historical avant-garde urbanism and understanding of city functions. Biodiversity, although a more recent issue, has become, over time, an important transversal element in urban governance, with a special focus on the reconciliation of humans and nature.

Urban green governance is not new for Barcelona. In the last two decades, the city has committed to several initiatives that aim to promote a nuration process in the city. Thus, the approach to urban biodiversity in the city is understood as an ongoing commitment to global sustainability through appreciation of the local environment. This implies an increasing connection between urban biodiversity and citizens, while ensuring the provisioning of ecosystem services, with particular attention given to the promotion of the well-being of the city dwellers

Jerusalem: a biodiversity shrine

Despite its complex biogeographical location and sociocultural dimensions, the city of Jerusalem has been successful in nurturing its urban biodiversity in line with sustainability. Jerusalem is considered an important site for biological diversity. The city is home to some 1,000 species of plants and animals, including 738 plant species, 176 bird species, 16 mammal species, 18 reptile species, and 3 amphibian species. Because Jerusalem is located at the confluence of the Mediterranean and Judean bioregions, species from both regions coexist in the city.

The approach to urban biodiversity in the city reflects two main elements: 1) the importance of bottom-up initiatives in building local understanding of urban biodiversity, and 2) a comprehensive approach to existing urban biodiversity and commitment from a wide range of international organizations.