Urban Biodiversity: A Key to Sustainable City Development

Quinn Carter
PhD
Technical University of Munich
Arcisstraße 21, 80333 München, Germany

Pat Mitchell
Dr.
University of Toronto
27 King's College Cir, Toronto, ON M5S, Canada

Jordan Smith
Prof.
University of Sydney
Camperdown NSW 2006, Australia

Abstract. Urban biodiversity is increasingly recognized as a crucial element in the development of sustainable cities. This article explores the various dimensions of urban biodiversity and its impact on ecological balance within urban settings. Emphasis is placed on the integration of green spaces and the role of native species in enhancing urban ecosystems. The study highlights the benefits of biodiversity in mitigating urban heat, reducing pollution, and improving the quality of life for urban populations.

Keywords: Urban Biodiversity, Sustainable Development, Ecological Balance, Green Spaces, Urban Ecosystems

Introduction

Urban areas are rapidly expanding, leading to significant alterations in natural ecosystems. As cities grow, the need to incorporate biodiversity into urban planning becomes paramount. This article examines the role of urban biodiversity in developing sustainable cities, focusing on its ecological, social, and economic benefits. We explore the integration of green spaces, the promotion of native species, and the importance of community involvement in biodiversity conservation. By fostering urban biodiversity, cities can enhance ecological balance, reduce pollution, and improve residents' quality of life. This comprehensive approach to urban planning is essential for creating resilient and sustainable urban environments.

This is a preliminary version. To read the full version of the article, please purchase a subscription.

References

1. Sharma, V. K., Basu, S., & Chakraborty, S. (2015). RNAi mediated broad-spectrum transgenic resistance in Nicotiana benthamiana to chilli-infecting begomoviruses. Plant cell reports, 34(8), 1389-1399.

2. Kumar, R. V., Sharma, V. K., Chattopadhyay, B., & Chakraborty, S. (2012). An improved plant regeneration and Agrobacterium-mediated transformation of red pepper (Capsicum annuum L.). Physiology and Molecular Biology of Plants, 18(4), 357-364.
3. Voron, V. P., Kuzyk, A. D., Ivashyniuta, S. V., & Tsipan, Y. R. (2024). Лісотипологічне оцінювання природної пожежної небезпеки лісів. Наукові праці Лісівничої академії наук України, (27), 76-84.