

Conference Abstract

City Oasis: Can Parks Be Havens for Biodiversity? A Look at Ecopark, Rajarhat

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Abstract

Urban parks offer a vital refuge for biodiversity in large cities, providing a wealth of ecosystem services. Larger parks and reserves within these urban areas tend to boast higher species richness than smaller urban parks, as they function as protected areas that harbor both diverse plants and animals (Nielsen et al. 2014). This study also explored how faunal species utilize restored habitats within Ecopark at Rajarhat, a large urban park (Besra et al. 2022, Chatterjee et al. 2023, Rong et al. 2023). Data on species richness and resource use were collected over a period of two years (November 2020–October 2022) using line transects, point counts, light traps, and netting methods. Rarefaction analysis is a method used to measure the species richness and diversity and visual representations. Data representation using conventional images, including plots and charts, revealed significant differences in how species utilize resources and partition niches across various habitat types within the park. Based on their habitat preferences, species were observed in forestland, marshland, grassland, and water bodies within the park (Rong et al. 2023). There were 28 species of fungi across eight orders and 17 families (Samanta et al. 2022a). Additionally, 127 floral species belonging to 28 orders with 49 families (Biswas et al. 2023), and 395 species of fauna across 45 orders and 153 families (Chatterjee et al. 2022a, Roy et al. 2022a, Rong et al. 2023, Samanta et al. 2022b, Roy et al. 2022b) were included in this summary to highlight the biodiversity in this urban park. We mobilized these datasets through the Global Biodiversity Information Facility

(Chatterjee et al. 2022b) to make sure the data is readily available for a wider set of data users and as open access. These findings suggest that habitat restoration efforts within Ecopark have significantly enriched faunal biodiversity. Because of rapid urbanization around the park, species have relocated from degraded habitats to the park's protected areas. The study's recommendations can guide conservation strategies to protect native species and contribute to a self-sustaining ecosystem within the park and surrounding areas.

Keywords

diversity, fauna, flora, conservation, urban park, India

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Author contributions

Arjan Basu Roy: Contributed plan of the work, interpretation & overall supervision. Lina Chatterjee: Designing the research work, writing original draft, data collection, and photographic documentation. Tarak Samanta: Field data collection, designed the research work, and contributed in writing. Nivedita Sengupta: has contributed to field work, data collection and contributed in writing. Vijay Barve: has contributed in supervision, proofreading, and designing.

Conflicts of interest

The authors have declared that no competing interests exist.

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