Frontier Dynamic Tracking in the Field of Urban Plant and Habitat Research: Data Visualization and Analysis Based on Journal Literature

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Abstract : The article uses the CiteSpace knowledge graph analysis tool to sort and visualize the journal literature on urban plants and habitats in the Web of Science and China National Knowledge Infrastructure databases. Based on a comprehensive interpretation of the visualization results of various data sources and the description of the intrinsic relationship between high-frequency keywords using knowledge mapping, the research hotspots, processes and evolution trends in this field are analyzed. Relevant case studies are also conducted for the hotspot contents to explore the means of landscape intervention and synthesize the understanding of research theories. The results show that (1) from 1999 to 2022, the research direction of urban plants and habitats gradually changed from focusing on plant and animal extinction and biological invasion to the field of human urban habitat creation, ecological restoration, and ecosystem services. (2) The results of keyword emergence and keyword growth trend analysis show that habitat creation research has shown a rapid and stable growth trend since 2017, and ecological restoration has gained long-term sustained attention since 2004. The hotspots of future research on urban plants and habitats in China may focus on habitat creation and ecological restoration.

Keywords : research trends, visual analysis, habitat creation, ecological restoration

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