

Urban Forests, Forest Urbanisms, and Global Warming

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abstract

During the current climate emergency, there has been an increasing focus on the role of forests, trees, and associated vegetation in urban areas – places where most of us live, work, learn, and play. As past studies have shown, urban forests play a role in the mitigation of global warming by, for example, sequestering carbon and reducing energy costs. However, their key contributions relate to the adaptation of urban areas. Urban tree canopies cool down urban heat islands, also during more frequent heat waves, and offer pockets of shade for residents. Urban forests also help regulate stormwater, jointly with a series of other ecosystem services. They also restore disturbed biodiversity and make place for non-human species in cities (Ferrini et al., 2017; Endreny, 2018; Konijnendijk, 2022). In addition, urban forests are themselves increasingly affected by global warming, through extended periods of droughts, more frequent occurrence of pests and diseases, and extreme weather events (Esperon-Rodriguez et al., 2022). In recognition of these and other urban forest benefits, large-scale tree planting in urban areas has been recommended internationally, nationally, and locally (Sousa-Silva et al., 2023).