Southmere Park Tiny Forest

November 2023

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Southmere Park Tiny Forest Report

Southmere Park Tiny Forest was planted by the community in February 2022 and has since been contributing to nationwide Tiny Forest Research. Through citizen science, Earthwatch Europe are studying the benefits that Tiny Forests can bring to the environment and the surrounding communities. The five research topics that are the focus of citizen science monitoring at our Tiny Forests are: biodiversity; flood management; tree growth and carbon storage; thermal comfort; and people and social benefits. Key results and feedback from Southmere Park events and monitoring are highlighted in this report, the data from which had contributed to our nationwide study on the benefits of Tiny Forests.

The Southmere Park Tiny Forest forms part of the CLEVER Cities Action Labs in London. CLEVER Cities is committed to working with local communities to reveal the potential and value of green spaces and natural assets, using nature-based solutions to enhance urban regeneration projects.

Carbon Capture and Tree Growth

Research ambition: How does tree growth and carbon storage vary across the Tiny Forest network annually?

471 tree measurements have been taken at the Southmere Park Tiny Forest since planting. The tallest recorded tree is a Silver Birch, which is over 1.2m in height.

By the end of 2022 149 forests across the UK were storing approximately 2.4 tonnes of Carbon above ground.

The majority of measurements were taken during January and February of 2023 by volunteer citizen scientists.

For more information, please visit our Tiny Forest portal:
https://tinyforest.earthwatch.org.uk

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Flood Management

Research ambition: What is the potential capacity of Tiny Forests to store water by changes to soil quality and improving permeability as the forests grow? How does this compare to surrounding soils?

Citizen Scientists attending the Tiny Forest Science Day in May 2023
Photo Credit Earthwatch Europe

10 infiltration data points have been collected from Southmere Park, measuring the rate at which water was absorbed inside the Tiny Forest, compared to the surround soils outside the forest boundary.

In total, 661 infiltration measurements were taken across 99 UK Tiny Forests between 2021-22, concluding that on average, Tiny Forests absorb water 32 percent faster inside the Tiny Forest than outside.

Biodiversity

Research ambition: How does the number and types of invertebrate groups vary between Tiny Forests and change as the forests grow? How does surrounding greenspace affect species recorded in the Tiny Forest?

16 pollinator surveys and 5 ground dweller surveys have been completed at Southmere Park.

Thermal comfort

Do Tiny Forests have a cooling effect? Do local microclimate conditions differ within the Tiny Forest compared to urban surroundings and how do people perceive these differences in terms of thermal comfort?

3 temperature, wind speed and humidity measurements were collected at Southmere Park, with no significant difference found between the inside and outside of the Tiny Forest as the forest is still too young.

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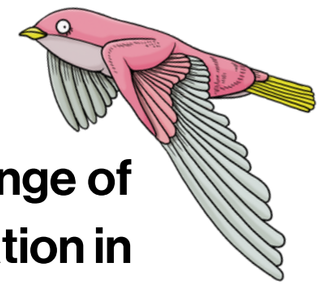

Social Benefits

Research ambition: What is the social reach of Tiny Forest – does the scheme help a diverse range of people to engage with this place-based greenspace intervention? To what extent does participation in Tiny Forest improve people's 'connection to nature'?

Events at Southmere Park have been attended by 185 volunteers

19 local Tree Keepers are signed up for this forest

Photos & feedback:

Photo credit: Earthwatch Europe

"It made me really look closely - almost a form of mindfulness. When I first arrived, it looked like a plot of green land. After a few hours in it, you see the varieties of life within it."

Photo credit: Earthwatch Europe

Photo credit: Earthwatch Europe

"The opportunity to spend time outdoors in nature was a breath of fresh air (literally!)"

"Getting our hands dirty was important to feel truly connected both to nature and the citizen science contribution, but I also really liked the moments for group discussion and reflection."

"The conversations we had between the citizen science activities were particularly impactful and thought-provoking."

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