

ESP 10th worlds conference (Ecosystem Services Partnership)
21-25 Oktober 2019 in Hannover

Vortrag: Greening court yards for climate adaptation and co-benefits in Potsdam, Germany

Katja Schmidt, Ariane Walz
Universität Potsdam

Urban green infrastructure (UGI) is increasingly being promoted as a measure to mitigate urban heat stress caused by the heat island effect and climate change impacts. However, evidence of the effectiveness of UGI to moderate heat stress is mostly lacking. This is a serious challenge for urban planners who have the responsibility of navigating their cities towards a sustainable future while being constrained by financial and spatial factors. In this contribution, we examine the effectiveness of green structures to increase thermal comfort in four courtyards with similar building structure but varying green structures in Potsdam, Germany. Our work will highlight important co-benefits that green structures offer in an urban setting. We will present first results of a measuring campaign that will take place in July and August 2019. Specifically, we aim to show how green infrastructure (1) affects human health through thermal comfort, while it has the potential to also affect (2) human well-being, (3) biodiversity, and (4) carbon storage. The case study area is located in a socially deprived neighborhood in the south-east of Potsdam, where additional benefits of green infrastructure are of particular importance. Our findings aim to increase our understanding of the regulating effects of different green infrastructure settings as well as their co-benefits.