



Assessing the benefits of trees outside woodlands using earth observations

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During this project you will use earth observation data to calculate multiple ecosystem services being provided by trees outside woodlands in the UK. The ecosystem services provided by trees outside woodlands include, but are not limited to, the accumulation of carbon that would otherwise have remained in the atmosphere. Local Authorities in the UK want to understand the benefits provided by their non-woodland trees but it is time and resource intensive to conduct the detailed field surveys required. Scientists at the University of Leeds, UBoC and Forest Research are testing alternative approaches by combining BlueSky National Tree Map data (aerial imagery plus LiDAR), i-Tree Eco data and i-Tree Canopy data from the open-source UK Canopy Cover Webmap. The student will explore quantitative relationships between key variables (i.e., tree crown area and carbon stored) and apply these relationships to aerial imagery of trees (which is available over a greater area), to determine the benefits that they provide.