

DEVELOPING A TREESCAPES TYPOLOGY

Research Summary

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Researchers from the UK Centre for Ecology & Hydrology and the University of York collaborated together to classify treescapes across Great Britain into a series of different ‘types’.

Treescapes need to deliver multiple competing functions, such as storing carbon and providing cultural benefits. These benefits often go together but sometimes work against one another. To understand how we can manage our treescapes to make the most of these different benefits, we need to understand more about how these various benefits are related to the different characteristics of treescapes. We therefore set out to find new ways of categorising treescapes by creating a new treescape typology map, which can be used to inform policy and decision-making on treescape creation and development.

Methods

We collected data on the quantity (e.g. amount of tree cover), quality (e.g. area of ancient woodland) and configuration (e.g. woodland size) of woody features, as well as information on climate and topography. This resulted in 45 variables from 11 datasets. We used data-driven machine learning to create a treescape typology map (at 1x1 km grid resolution), producing 14 broad categories of treescape types. We named the types based on their most important defining characteristics.

Main findings

1. Our typology of 14 treescape types range from dense broadleaved woodland to open treescapes with few, small woodlands.
2. These open treescapes comprise 40% of all the landscapes in Great Britain.

3. Our results show how our treescape types overlap with types of land cover, soil types, and patterns of invertebrate biodiversity.

Our treescape typology provides a new, holistic view of trees and hedges, and maps where different treescape types occur in Britain. It highlights open treescapes where woodlands do not dominate, which are often overlooked. It has potential to be used for the evaluation and strategic development of treescapes by helping decision-makers to understand trees and hedges in the landscape in a more integrated way, and by providing a unique perspective when planning how future treescapes should look. The typology could also be used to understand how biodiversity and ecosystem service provision varies by treescape type and therefore provide context for enabling better outcomes from activities like tree and hedge planting.

The typology can be viewed here: <https://agland-viewer.ceh.ac.uk/tool>

For further details and guidance on using the dataset please visit the UKCEH page for this project: [Connected Treescapes | UK Centre for Ecology & Hydrology](#)