PROJECT TITLE: Characterising the impacts of climate extremes on the resilience of European forests

Project Science Theme: Climate Change and Risk
Project keywords: Climate extremes, forests, remote sensing

Lead Institution: University of Bristol
Lead Supervisor: Tommaso Jucker, University of Bristol, School of Biological Sciences
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Project aims and methods:

Like other long-lived organisms, trees experience a wide range of climatic conditions over the course of their lives. Understanding how these fluctuating conditions impact tree growth and survival is critical to predicting how climate change will affect forest carbon cycling. But because trees respond to their environments at multiple time scales – hours, days, seasons and years – understanding how they are impacted by rapid climate change is challenging. This project will address this knowledge gap by combining different data sources relating to tree growth and physiology from forests across Europe, including dendrometers, tree rings and satellites. The student will have the opportunity to co-develop the core research questions and methods of the project, including choosing which type(s) of approaches to focus on (e.g., field, remote sensing), and what balance to strike between collecting new dataset and analysing existing ones. The student will be embedded within a larger team of researchers working towards a shared goal of better understanding how forests are responding to global change. Through this project they will have the opportunity to hone several skills, including field surveys, coding, statistics, and science communication.

Useful recruitment links:

For information relating to the research project please contact the lead Supervisor via: t.jucker@bristol.ac.uk

Bristol NERC GW4+ DTP Prospectus:
https://www.bristol.ac.uk/study/postgraduate/research/great-western-four-doctoral-training-partnership-nerc/

How to apply to the University of Bristol:
http://www.bristol.ac.uk/study/postgraduate/apply/

The application deadline is Monday 13 January 2025 at 2359 GMT.