Soil biodiversity and deadwood decay in European forests

Applications are invited for a fully funded PhD in terrestrial ecology, based in the School of Biological Sciences at the University of Bristol. This position will form an integral part of a wider UKRI Future Leaders Fellowship team, collectively focussed on understanding how soil biodiversity and above-below ground interactions influence ecosystem functioning in European forests. We seek a PhD student to interrogate the dominant controls of deadwood decay across a latitudinal gradient from Finland to Italy.

Deadwood is a globally important carbon store and a key habitat and food-source for saproxylic organisms. Decomposition is the process by which the carbon in dead organic matter is assimilated into soil carbon pools, lost through leaching or released as CO$_2$ into the atmosphere. Therefore, understanding the dominant biotic and abiotic factors that determine the rate and fate of carbon transfer to different stores is vital to improve global carbon budgets and will facilitate an understanding of how declining biodiversity will affect soil biogeochemical cycling.

Working within forest plots in Finland, Romania, Germany, the UK and Italy, this project will involve an exciting combination of field and lab work to assess the relative contribution of soil microbes, invertebrates, microclimate, macroclimate and wood traits in mediating deadwood decay rates. As such, applicants need a strong background in terrestrial ecology, an enthusiastic attitude to extended field trips and European travel.

Essential
- A minimum 2:1 in biological or environmental sciences
- Research experience in terrestrial ecology

Desirable
- Masters (merit or above) in a relevant field
- Experience in field biology
- Invertebrate ID and/or molecular sequencing skills
- Written publication record

Applicants are encouraged to contact Dr Hannah Griffiths (Hannah.griffiths@bristol.ac.uk) for enquiries and to discuss the project further. Unfortunately, this position is open to UK applicants only.

Interviews to be held in December 2021 with the view that the successful candidate will start early in 2022.