Biological Sciences

The Role of Biodiversity in Promoting and Maintaining Human Health and Wellbeing

Scientific background

Human health and the natural environment are intractably linked; with growing evidence that spending time outside immersed in nature, particularly when undertaking exercise, is beneficial for health and wellbeing. However, the evidence base has taken a mean-field approach to assessing nature, generally assuming that most natural green space is equivalent in terms of health promoting qualities. Ecologically this appears misleading, as the role of biodiversity stocks in regulating the flow of ecosystem services (e.g. health benefits) is highly dependent on the environmental and ecological context under which natural ecosystems exist; simply put, different components of biodiversity provide differing amounts of benefits to society in general, and across different groups within a society. This studentship will explore how different quantities and qualities of biodiversity and the associated differences in structural complexity of ecosystems influence health-related ecosystem service delivery.

Research methodology

You will examine the role of biodiversity in promoting and maintaining human health. You will evaluate the role of biodiversity in promoting wellbeing via a series of experimental, observational (relying on natural gradients in biodiversity) and survey-based approaches. This research is embedded in a cross-faculty research initiative combing supervisory support from internationally-leading experts in ecology, sports and exercise science, and psychology, with access to exceptionally well-funded and state-of-the-art laboratories.

Training

You will gain skills in physiological and psychological evaluation of human health and quantifying biodiversity, alongside broader transferable research skills; producing a highly employable postdoctoral researcher, with a range of multidisciplinary skills. The end goal of this work is to feed directly into local policy discussions (e.g. via our local county council contacts) about how to design urban green environments to maximise human wellbeing, and thus inform changes in practice and policy contributing to wider impact.

Person specification

We are looking for an enthusiastic person with a good undergraduate and/or master's degree in a related subject (e.g. Ecology, Environmental Biology, Sport and Exercise Science, Human Health etc) and a broad interest in ecology, human health and wellbeing. The ideal candidate will relish the opportunity to develop their career in a vibrant and well equipped research group and answer questions of societal importance. You must possess well-developed oral and written communication skills, interpersonal skills and be able to manage your time effectively.

Funding

This studentship is fully funded for 3yrs for UK, and EU nationals; covering fees and providing support for research, training, and living expenses. Overseas (non-EU) applicants are welcome to apply, but will be expected to contribute to their fees and living expenses. The student would be expected to start October 2018.

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Application process

Please apply for this PhD studentship by sending a CV and cover letter (including contact details of two academic references) outlining your application to adumbrell@essex.ac.uk by **July 13th 2018**. If you have any questions please feel free to contact any member of the supervisory team (Dr Alex Dumbrell – adumbrell@essex.ac.uk; Dr Valerie Gladwell - vglad@essex.ac.uk; or Dr Jo Barton - jobarton@essex.ac.uk). Interviews will be held on July 23rd 2018.

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