



Trinity College Dublin
Coláiste na Tríonóide, Baile Átha Cliath
The University of Dublin



BioRodDis

Biodiversa/EPA Fully Funded 3 year PhD Opportunity Managing biodiversity in forests and urban green spaces Dilution and amplification effects of rodent microbiome and rodent-borne diseases

Start Date: September 2020

Understanding the relationships between wildlife biodiversity and zoonotic disease is a challenging issue that scientists must address to support further policy actions. As part of the BioRodDis (<http://www.biodiversa.org/1757/download>) project this PhD will contribute to tackling this challenge by focusing on rodent-borne diseases in European temperate forests and large urban green spaces.

Using rodent sampling and a large investigation of zoonotic agents and microbiome, we will establish an up-to-date, open database and maps of rodent-borne pathogens circulating in western-central European countries. Eco-epidemiological approaches will enhance our understanding of microbial interactions and the processes that influence pathogen transmission in rodent populations. The PhD candidate will use the Irish bank vole invasion model and build on previous studies (e.g. Stuart *et al* 2020 Int J. Para) to conduct a spatiotemporal study analysing the infection dynamics of native and invasive species during a bio-invasion. The project will have a strong one health approach with a large fieldwork dimension as well as lab work in parasitology, microbiology and virology and collaboration with University College Dublin School of veterinary medicine.

Requirements

The successful candidate must be very comfortable working long hours in the field and the challenges that presents. Good laboratory techniques are essential. Full driver licence required. Applicants should have a first or upper second-class honours primary degree or equivalent in Zoology, Environmental Sciences, Ecology, or a related discipline.

Award

The student will be based at the Institute of Technology Tralee. They will be working under the joint supervision of Dr Peter Stuart, Dr. Joanna Tierney (ITT) and Prof. Celia Holland (Trinity College Dublin). This project is funded by the Irish EPA and the EU-Biodiversa programs and runs 2020-2022.

It is part of a consortium led by Nathalie Charbonnel (INRA, Montpellier, France) with other partners from IRD (Montpellier, France), Irstea (Grenoble, France), University of Potsdam (Germany), Medical University of Gdansk (Poland), University of Antwerp (Belgium) and Ireland. The candidate will collaborate with this consortium, presenting great networking opportunities.

The fellowship stipend is €18,000 per annum plus student registration fees for 36 months

Application procedure

Applications consisting of a letter of interest and CV including two references should be submitted to: Dr Peter Stuart Peter.Stuart@staff.ittralee.ie **Closing date: 14 August 2020**

Informal enquiries can also be made to the same contact.



biodiversa



Environmental Protection Agency