Vacancy for Postdoctoral (3 years) Candidate

Ghent University (Belgium)

Scaling up functional biodiversity research: from individuals to landscapes and back

Project background

After two decades of functional biodiversity research, there is a global consensus that a higher diversity of genotypes, species and communities results in an increase of vital ecosystem process rates. Theoretical and experimental studies showed that relationships between biodiversity and ecosystem functions can result from three non-exclusive mechanisms: niche complementarity, sampling and ecological insurance effects. Besides, evidence is growing that environmental changes at broad spatial scales, such as triggered by fragmentation and loss of natural habitats, may cause rapid phenotypic, physiological and behavioural shifts across trophic networks and that ecological and evolutionary dynamics resulting from these shifts may be intimately linked. Despite this strong theoretical framework on putative interactions between local (foodweb) and landscape-level (fragmentation) effects on ecosystem functioning and the increased recognition of habitat fragmentation as the prime driver of the worldwide loss of biodiversity, however, changes in foodweb structure resulting from habitat fragmentation have been rarely addressed in functional biodiversity studies.

To bridge this knowledge gap, a Ghent University-based consortium consisting of biologists, bio-engineers and wildlife disease experts has set up a unique plot design where it combines state-of-the-art tools and methods from forestry, (behavioural) ecological and epidemiological research disciplines. Ultimately, this individual-based, mechanistic and multi-disciplinary study of foodweb dynamics in a real-world forest landscape is expected to advance our knowledge on how biological drivers operating at different spatial scales may affect relationships between biodiversity and ecosystem functioning, the latter being measured in terms of photosynthesis, nutrient cycling, pest and disease dynamics.

See http://www.treedivbelgium.ugent.be/pl_treeweb.html for more information.

Here, we advertise a three-year postdoctoral position to advance the conceptual, statistical and dissemination aspects of this project, in close collaboration with other pre- and postdoctoral researchers and field technicians.

Research Environment

The research project is divided into six complementary work packages that reflect both the multitrophic project design and the multidisciplinary nature of the underlying research consortium. The latter links research teams active in one gamma (Prof. A. Martel, Division of Poultry, Exotic Companion, Wildlife and Laboratory Animals at the Faculty of Veterinary Medicine) and two beta faculties (Faculty of Bioscience Engineering: Prof. Kris Verheyen & Prof. Lander Baeten, Forest & Nature Lab and Faculty sciences, Terrestrial Ecology Unit: Prof. Dries Bonte & Prof. Luc lens) of Ghent University (www.ugent.be). Given the integrative nature of the project, the successful candidate will work with PI's from all the different labs and will also be exposed to other national and international projects and networks, including TreeDivNet (www.treedivnet.ugent.be), TreeDivBelgium (www.treedivbelgium.ugent.be), FunDivEUROPE (www.fundiveurope.eu) and smallFOREST (http://u-picardie.fr/smallforest/uk/).

Profile and requirements

- You have a PhD in Bioscience Engineering or Biology or an equivalent degree in Life Sciences;
- You have a strong interest and solid background in Functional Biodiversity Research and Quantitative Ecology;
- You have experience in handling and analysing large, complex datasets and a strong publication record;
- You are highly motivated to work in a collaborative project with PhD students, other post-docs, and technical assistants;
- You are enthusiastic, highly motivated, and you show strong leadership capacities;
- You have experience in, or are keen to develop, networking opportunities to develop your research career.

We offer

- A post-doc position for 3 years (full time employment, ca. €2400 net/month depending on your personal situation)
- Tentative starting date is 1st of January 2017

Interested?

Please send **a single pdf-file** including your CV, names and contacts of two key reference persons, and a cover letter explaining how you would approach the position, to luc.lens@ugent.be before **September 30th** 2016.