

PhD position in coastal food web ecology and carbon cycling

I am recruiting a PhD student to work on carbon cycling in coastal food webs.

The PhD position is part of the Centre for Coastal and Climate Research (CoastClim; www.coastclim.org) at Tvärminne Zoological Station at University of Helsinki. CoastClim explores the potential of coastal ecosystems as natural solutions to mitigate climate change by quantifying biodiversity and its role for carbon cycling and climate feedbacks.

The overarching aim of this PhD project is to predict the fate of carbon in coastal Baltic Sea ecosystems, using a food web approach. Trophic interactions inter-link the ecosystem from the bottom to the top and are central for the flow of carbon, and therefore food webs are central for understanding the fate of carbon in the ecosystem. This is important because the coastal ecosystems can function as carbon sinks, mitigating climate change effects, but they are faced with multiple threats such as rising temperatures, eutrophication, invasive species, and degradation of foundation species (macrophytes). These pressures may disrupt species interactions and ecosystem functioning.

I am looking for a candidate, who is enthusiastic about global change effects on species interactions and ecosystem ecology, and holds a degree in ecology, biology, or environmental science. The candidate should have a curious, analytical and creative mind-set with an interest to combine field data, or experimentation, with modeling. Depending on the background and interests of the applicant, the focus of this PhD project can to a certain degree be adjusted to the research interests and background of the successful candidate. Because this PhD project can be purely computational, focusing on analyses of existing field data and food web modeling, I also welcome applicants with a degree in environmental engineering, computation, or applied mathematics but with a strong and outspoken interest to apply their skills to an ecological system.

Documented computational skills, in programs such as R, is an advantage. It is also necessary to possess excellent communication, presentation, and academic writing skills in English.

The PhD position is funded for 4 years from the agreed starting date. The PhD scholarship amounts to 2200 €/ month. A trial period of six months will be applied. The University of Helsinki offers comprehensive services to its employees, including occupational health care and vast opportunities for professional development.

How to apply:

1. A motivation letter including a description of your research interests and description of your background relevant to the position, which methodologies you envision to use, and why you consider yourself a good candidate for the position (max. 2 pages incl. references)
2. Curriculum vitae including information about your education, experience, language skills and other skills relevant for the position (max. 2 pages).
3. Contact information of two persons who are willing to provide a reference letter by separate request.

For further information regarding the position, please contact Dr. Susanne Kortsch: susanne.kortsch@helsinki.fi. The applications should be sent in a single pdf file, no later than 31st of January 2024, to the same email address as above.

At University of Helsinki and at Tvärminne Zoological Station, we offer creative and stimulating working conditions in a dynamic, multidisciplinary and international research environment.

The University of Helsinki, founded in 1640, is one of the best multidisciplinary research universities in the world, and is an international academic community of 40,000 students and staff members. It operates on four campuses in Helsinki and in 15 other locations.

The Tvärminne Zoological Station is a part of the Faculty of Biological and Environmental Sciences, University of Helsinki, Finland. It serves as a centre for a large variety of high-quality biological research, carries out environmental monitoring, and offers facilities for visiting scientists, field courses and seminars. The area is characterized by high variation in biotopes and species richness. The station was founded in 1902 and provides good background data for studying long-term environmental changes. The station also serves as the national hub for the recently established *Centre for Coastal Ecosystem and Climate Change Research (CoastClim)*, which investigates the links between coastal biodiversity, carbon cycling, and climate feedback (see www.coastclim.org). CoastClim is a strategic spearhead partnership between the University of Helsinki and Stockholm University that focuses on strengthening collaborative marine ecosystem and climate change research between our universities. The effort combines the major marine and atmospheric units at the universities.