Eawag, the Swiss Federal Institute of Aquatic Science and Technology, is an internationally networked aquatic research institute within the ETH Domain (Swiss Federal Institutes of Technology). Eawag conducts research, education and expert consulting to achieve the dual goals of meeting direct human needs for water and maintaining the function and integrity of aquatic ecosystems.

The ETH Board has recently funded a research program on Blue-Green Biodiversity (BGB) with the goal to strengthen interdisciplinary biodiversity research between WSL, Federal Institute for Forest, Snow and Landscape Research (Birmensdorf, Switzerland) and Eawag, the Swiss Federal Institute of Aquatic Science and Technology (Dubendorf, Switzerland). Both institutes are renowned worldwide for their advancements in the fields of ecology and environmental sciences. They offer excellent technical support, data-sets, and infrastructure to conduct interdisciplinary research in the laboratory, field, and using computer models. They share common goals towards education, research, and technology transfer at the highest international level.

The Cook “Blue-Green Infrastructure” lab at Eawag and Moretti lab at WSL have a vacancy for a shared

Postdoc Position in Urban Ecology

Studying Blue-Green infrastructure and biodiversity using Bayesian statistics

As biodiversity loss continues to accelerate worldwide, cities will need to be redesigned to conserve it, while still protecting growing populations from threats such as flooding and climate change. Blue-green stormwater infrastructure (BGI), a spatially distributed system of BGI elements such as urban streams, constructed wetlands, or green roofs, could jointly address these multiple challenges; however, more work is needed to investigate how distributed BGI systems could be augmented to better enhance urban biodiversity, while minimizing social-ecological trade-offs common to the complex nature of cities. **In this postdoctoral research project**, you will combine statistical and spatial modeling approaches to build an urban species distribution model that relies on Bayesian inference for the taxa: frogs, birds, dragonflies, butterflies, and mosquitos. The goal is to incorporate expert knowledge, existing data, and uncertainty to evaluate the effectiveness of BGI to enhance biodiversity through habitat creation and to understand how BGI could be altered in the future to fulfil their engineering, ecological, and social requirements.

The position is to be filled with a motivated candidate, capable of interdisciplinary research, who can advance the research fields of urban ecology and urban water management.

The selected candidate will be part of an interdisciplinary consortium of researchers in the fields of ecology, urban water management, planning and land use, and social science. The candidate will have the opportunity to mentor and exchange with the PhD student also working on this project.

To apply, you must have completed (or be in the process of completing) a PhD in Ecology, Environmental Science, Environmental Engineering, or a related field. Applicants must have proven experience with statistical modeling (preferably in R or python) and interdisciplinary research, and ideally should have experience with spatial analysis tools (e.g., GIS) and biodiversity assessment. Familiarity with trait-based approaches and Bayesian inference concepts is also an asset. Proficiency in English is required, and knowledge of German is an advantage. The successful applicant will be based in Zurich in the groups of Dr Lauren Cook and of Dr Marco Moretti. You will be administratively located in the Urban Water Management Department at Eawag; however, you will also have access to facilities at WSL. The position will be for a period of two years, and should start in Summer or Fall 2021. The project is financed by the Blue-Green Biodiversity (BGB) research program of the ETH Board.

We are looking for a highly motivated, enthusiastic and independent person with a passion for interdisciplinary research and an interest in mentoring junior scientists to join our team. The Cook lab is based at Eawag and and the Moretti lab at WSL in Birmensdorf. You should be comfortable working at and occasionally commuting between both institutions (travel time <1 hour). Zurich hosts many other research groups in ecology, biodiversity, and engineering research, and is among the world’s leading cities in terms of science, culture and quality of life. Applications from women and minority groups are especially welcome.

Eawag is a modern employer and offers an excellent working environment where staff can contribute their strengths, experience and ways of thinking. We promote gender equality and are committed to staff diversity and inclusion. The compatibility of career and family is of central importance to us. For more information about Eawag and our work conditions please consult www.eawag.ch and https://www.eawag.ch/en/aboutus/working/employment/.

Applications must be submitted by 31 May 2021 and should include a motivation letter and a complete CV, as well as the names and contact information for three references.

For further information about the position please contact Dr Lauren M. Cook.

We look forward to receiving your application. Please send it through this webpage, any other way of applying will not be considered. A click on the link below will take you directly to the application form.

Applications from employment agencies/personnel consultants are not welcome and will not be considered.

https://apply.refline.ch/673277/0848/pub/1/index.html