Position as PhD Research Fellow in the field of nature-based solutions and biodiversity available at NIVA

Apply for position

The Norwegian Institute for Water Research (NIVA) is recruiting a PhD candidate to work on nature-based solutions (NbS) in river catchments under pressure from a range of land-uses and their benefits for primarily biodiversity. NbS are solutions inspired and supported by nature and are increasingly used across landscapes, ecosystems and land-use types. They are considered to have multiple benefits for nature, society and human well-being. The use of NbS is strongly promoted at a European scale, as part of the EU Green Deal and Biodiversity Strategy 2030, so it is a research topic rapidly increasing in relevance.

About the PhD project

The PhD project will be conducted within the collaborative project SABICAS, funded by the Norwegian Research Council. SABICAS focuses on riparian zones, floodplains and connected wetlands, and aims to place these ecosystem features in the forefront of environmental management by using them actively as NbS to mitigate human disturbances. We will focus on two Norwegian river catchments with differing human activities to develop an innovative catchment-based toolbox that optimizes the use of an effective NbS portfolio, aiming at safeguarding biodiversity and increasing climate adaptation (including risks to human society) while securing a gradual land use transition. The PhD project will assess positive effects of these NbS for biodiversity and investigate the underlying ecosystem processes. Functional aquatic-terrestrial linkages are expected to be vital for biodiversity across the ecotone and measuring these using stable isotopes and fatty acid PUFAs will be a cornerstone of the PhD project. However, within this overall scope the successful candidate will have the necessary freedom to formulate a project outline to secure ownership.

The PhD candidate is expected to cooperate with an interdisciplinary team of researchers from NIVA as well as the other SABICAS project partners, which covers both research and non-research organisations. The PhD candidate will be enrolled at the University of Oslo (UiO), Institute for Bioscience, with Prof Dag O. Hessen as supervisor. Furthermore, the candidate will be co-supervised by Prof Nikolai Friberg, NIVA, and Dr Brendan McKie from the Swedish Agricultural University, Uppsala, Sweden. As part of the PhD curriculum the student will undertake courses at UiO.
Qualification requirements

To be admitted as a PhD student at UiO, the applicant must hold a MSc degree at grade B or higher in biology, environmental sciences or another field of relevance. It is beneficial if the candidate has previous experience with freshwater ecosystems and we seek a person that is interested in working across disciplines and to engage with stakeholders. Good writing skills are also a requirement. Skills in both univariate and multivariate statistical analysis are highly desirable, preferably using the statistical software R. GIS-competence would be a further advantage. The candidate must have fluent oral and written communication skills in English. Scandinavian language skills are an advantage, but not a requirement. As the project will include fieldwork in rural areas, the candidate must hold a valid driving license.

Formalities

At NIVA the PhD position will be primarily affiliated to the section of “Freshwater Ecology”. The section consists of more than 20 researchers working with all aspects of freshwater ecosystems including monitoring the status of Norwegian rivers and lakes. One research topic of the section is restoration ecology and activities on the use of NbS including a recently finished project on the effects of riparian buffers on aquatic and terrestrial ecosystems (CROSSLINK a EU BIODIVERSA project). It is expected that data from the CROSSLINK project will be used in support of the advertised PhD project. Close cooperation is foreseen with other sections at NIVA working on NbS such as our social science oriented section for “Water and Society”.

The successful applicant will have the opportunity to conduct a shorter research stay at the Swedish Agricultural University in Uppsala, Sweden, as part of the PhD project.

The applicant will have the opportunity to present at national and international conferences.
The fellowship will be for a period of 3 years, or for a period of 4 years with 25% compulsory work in projects contingent on the qualifications of the candidate and the project needs at NIVA.

**Selection criteria**

- Experience and/or strong interest in conducting applied science on solutions to safeguard biodiversity in freshwater ecosystems.
- Experience in a programming language such as R.
- Experience/core interest in working with biodiversity.
- Knowledge of scientific theory and methodology including statistical analysis.
- Analytical ability and writing skills as demonstrated by scientific reports, papers or similar.
- Oral communication and presentation skills.
- Willingness and ability to work as part of an interdisciplinary team and engage with stakeholders as part of the wider SABICAS project.
- The applicants personal references.

**Personal skills**

We seek a highly motivated and enthusiastic candidate with genuine interest in the subject. Applicants must show good interpersonal skills and to balance collaborative abilities with working independently.

**NIVA offers**

- Exciting and stimulating tasks in a leading national water science research institute with great social significance.
- To be part of a network of national and international researchers.
- An opportunity for professional and personal development.
- A multicultural, social and creative work environment.
- The opportunity to engage with other early career scientists at NIVA.
- Good pension, welfare and insurance schemes, and competitive wages.
The Norwegian Institute for Water Research (NIVA) is Norway's leading research institute for the aquatic environment, working across a wide range of environmental, climate and resource issues. Our high-quality research is characterised by its relevance, and its holistic and interdisciplinary approach, combining research with monitoring, assessment, problem solving and consulting. The NIVA group has approximately 400 employees and is headquartered in Oslo, with branches in Bergen, Grimstad, Hamar and Copenhagen, together with a marine research station in Drøbak, and subsidiaries in Tromsø, Chile and China.