



Norges miljø- og
biovitenskapelige
universitet

Global challenges regarding energy and climate change, the environment, health, food safety, technology and renewable solutions, use and conservation of land and natural resources, and development of the bio-economy, requires greater effort. NMBU is well equipped to conduct further research in these fields. NMBU's expertise spans entire value chains and includes both basic and applied research.

On 1 January 2014, the Norwegian School of Veterinary Science and the University of Life Sciences merged and became -NMBU, the Norwegian University of Life Sciences. NMBU has 1700 employees and 5200 students, and is currently located on two campuses - Ås, about 30 km south of Oslo, and Adamstuen in Oslo. In 2020, the new research- and education-building for veterinary science will be completed and all of NMBU will then be located at Campus Ås.

Further information about NMBU is available on www.nmbu.no

PhD scholarship within Environmental Sciences - Ref.no 17/01749

The Faculty of Environmental Sciences and Natural Resource Management (MINA) at the Norwegian University of Life Sciences (NMBU) has a vacant 3 year PhD-position within environmental sciences

The Faculty of Environmental Sciences and Natural Resource Management (MINA) has about 200 employees and undertakes teaching, research and dissemination within the fields of geology, soil science, limnology, environmental chemistry, forestry, ecology, natural resource management, renewable energy, nature based tourism. The faculty has ca. 600 students, and approximately 90 PhD-students. The employees of the faculty are significant participants in their respective fields of expertise, both nationally and internationally and have a high level of scientific production. For more information: <https://www.nmbu.no/en/faculty/mina>

Research project

Gonyostomum semen is an alga that virtually overruns entire lake ecosystems and that threatens human interests. Data suggest that *G. semen* has become more successful in Europe after 1970. Most researchers therefore assume that *G. semen* is an invasive species that currently spreads through Europe. An alternative hypothesis suggests that the current success of *G. semen* is due to a revitalization of existing populations exposed to unfavorable environmental conditions in 1940-1970. The project will test both hypotheses by reconstructing environmental conditions and *G. semen* abundance in 10 Norwegian lakes for the period 1900-today. The project will give a better understanding of the autecology of *G. semen* and its ability to overtake aquatic ecosystems. Key methods include sediment core analysis (pigments, fossilized DNA, fractions of organic matter) and modelling of lake color and thermal stratification patterns. The project's working group includes researchers from NMBU, the Norwegian Institute for Water Research (NIVA) and the University of Uppsala (Sweden). Local water authorities are included as well.

Main tasks

- Organize and carry out field work in 10 lakes in Southeastern Norway. Collaborate with local water authorities to secure access to all available data and knowledge on the studied lake ecosystems.
- Coordinate and carry out lab work. Assisted by supervisors and lab personnel, the successful candidate will carry out HPLC analysis of sediment pigments, qPCR analysis of sediment DNA and infrared spectroscopic characterization of sediment organic matter.
- Adapt and run existing mathematical models to reconstruct thermal stratification and watercolor.
- Coordinate dissemination project results. The successful candidate will be the main author of most/all research papers. We also expect that the PhD student will take part in result communications with local water managers.
- Participate in supervision of master students in *G. semen* ecology.

The successful candidate must submit a PhD education plan to be approved by MINA within the first months of appointment, and complete the PhD within the PhD scholarship period.

Academic qualifications

The successful applicant must meet the conditions defined for admission to a PhD programme at NMBU. The applicant must have an academically relevant education corresponding to a five-year Norwegian degree programme, where 120 credits are at master's degree level. The applicant must have a documented strong academic background from previous studies, and be able to document proficiency in both written and oral English. For more detailed information on the admission criteria please see the [PhD Regulations](#) and the relevant [PhD programme description](#).

The applicant must document expertise and interest in the research subject.

Required Academic qualifications

- Strong educational background in natural sciences

Desired Academic qualifications

- Education in ecology and/or in limnology

- Education/experience in organic chemistry and/or DNA analysis
- Basic education/experience in mathematical modelling

Required personal skills

- A deep interest in ecology and an ability to focus on ecological processes
- Ability to work in a multidisciplinary team.
- Ability to do field work.

NMBU offers:

- An academic institution with a strong focus on environmental sciences and dedication to professional development, dissemination and competence.
- An interdisciplinary and inclusive environment that offers exciting research and development opportunities.
- An attractive benefits package and welfare schemes.
- Attractive combination of rural surrounding and proximity to Norway's capital city, Oslo.
- Opportunities for outdoor activities with access to excellent hiking areas around Oslo and proximity to the Oslofjord.

Remuneration

The salary for PhD-scholarship start at wage grade 50 on the Norwegian Government salary scale upon employment and follow ordinary meriting regulations.

For especially well qualified applicants, alternative salary placement could be considered.

Employment is conducted according to national guidelines for University and Technical College PhD scholars.

Further information

For further information, please contact Professor Thomas Rohrlack

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Application

To apply online for this vacancy, please click on the '**Apply for this job**' button above. This will route you to the University's Web Recruitment System, where you will need to register an account (if you have not already) and log in before completing the online application form.

Application deadline: 31.07.2017

Applications should include (electronically) a letter of intent, curriculum vitae, full publication list, copies of degree certificates and transcripts of academic records (all certified), and a list of two persons who may act as references (with phone numbers and e-mail addresses). Publications should be included electronically within the application deadline. The relevant NMBU Department may require further documentation, e.g. proof of English proficiency.

Printed material which cannot be sent electronically should be sent by surface mail to Norwegian University of Life Sciences, Faculty of Environmental Sciences and Natural Resource Management (MINA), P.O. Box 5003, NO-1432 Ås, within 31.07.2017. Please quote reference number 17/01749

If it is difficult to judge the applicant's contribution for publications with multiple authors, a short description of the applicant's contribution must be included.

A compulsory contribution of 2 % is made to the Norwegian Public Service Pension Fund. A good working environment is characterized by diversity. We encourage qualified candidates to apply, irrespective of gender, physical ability or cultural background. The workplace will if necessary be facilitated for persons with disabilities.

According to the Freedom of Information Act § 25 the list of applicants for this position may be made public irrespective of whether the applicant has requested that his/her name be withheld.

Jobbnorge ID: 137700, Deadline: Closed