



About us

NORCE is a new and forward-looking research institute, with expertise in a wide range of fields and strong communities of knowledge. We deliver research and innovation in energy, health

care, climate, the environment, society and technology. Our solutions address key challenges for society and contribute to value creation on the local, national and global levels.

PhD in Molecular Ecology and Paleoceanography

About the position

We have a full-time PhD position available in the field of paleoceanography and molecular ecology at NORCE Climate. The position is available within the cross-disciplinary research project A Genetic View into Past Sea Ice Variability in the Arctic (AGENSI), funded through an ERC Consolidator Grant. The doctoral research will be focusing on using innovative approaches to reconstruct the past Arctic sea ice evolution by using environmental ancient DNA for past sea ice reconstructions.

The position is for a fixed-term period of 3 years and you will be enrolled as a PhD student in the Department of Biological Sciences at the University of Bergen (UiB). There is the possibility of a 4th year with compulsory other work (e.g. teaching duties at the Department of Biological Sciences). The 4th year is contingent on the qualifications of the candidate and the teaching needs of the department and will be decided upon appointment.

We are seeking a highly motivated candidate to strengthen an enthusiastic, cross-departmental research group at NORCE, working at the forefront of a new research field that combines paleoceanography and molecular ecology. The two participating departments are NORCE Climate and NORCE Environment. NORCE Climate has about 50 researchers conducting both basic and applied research on the past, present and future climate system, on anthropogenic climate change and its impact on societies, and on the feasibility of climate change mitigation options. NORCE Environment conducts basic and applied research for knowledge-based ecosystem assessment and mitigation of environmental impacts. Their vision is to develop and deliver knowledge-based solutions that promote ecologically sound resource management and innovation.

You will have the opportunity to be part of the national research school on [Changing Climates in the Coupled Earth System](#) (CHESS), and you will also be affiliated with the [Bjerknes Centre for Climate Research](#) (BCCR). BCCR is the largest climate research centre in the Nordic countries and among the leading centres in Europe. The working environment is highly international with around 200 scientists from 37 countries.

The main supervisor will be Dr. Jessica L. Ray (NORCE Environment/UiB), the scientific lead for the ancient DNA work. Co-supervisors will be Dr Aud Larsen (NORCE Environment/UiB) and Dr Stijn De Schepper (NORCE Climate, principal investigator of AGENSI).

About the project/work tasks

Background

Arctic sea ice is poorly documented before satellite records. Nevertheless, long Arctic sea ice records are essential for estimating the impact of the ongoing Arctic sea ice reduction. Yet, long-term records of Arctic sea ice variability are not readily available and few proxies are available to generate such records. This limits our understanding of sea ice in the climate system, its natural variations and drivers, and thus major uncertainties about the future Arctic remain. In AGENSI, we will provide sea ice reconstructions for the Late Quaternary of the Arctic using a novel approach involving environmental ancient DNA.

Work tasks

You will develop and apply environmental ancient DNA for Arctic sea ice reconstructions in the Late Quaternary. Specifically, your tasks are:

- laboratory work to extract, quantify and quality-assess ancient DNA from marine sediments
- qualitative and quantitative molecular analyses of ancient DNA
- bioinformatic and statistical analyses of metabarcoding results
- field work (research cruise) in the Arctic to collect marine sediment cores

Your profile, qualifications and skills

Education

Applicants must hold a master's degree or the equivalent in (marine) biosciences, molecular biology, microbiology, bioengineering or relevant field, or must have submitted his/her master's thesis for assessment prior to the application deadline. Master students can apply provided they complete their final master exam before 01.09.2019. It is a condition of employment that the master's degree has been awarded.

Qualifications and personal skills

- a background in molecular ecology, with experience in PCR theory and application is required. Experience with contamination-prone PCR is favorable.
- basic skills using Linux/Unix command-line navigation and tools for data processing
- meticulous laboratory and organizational skills
- interest in Arctic sea ice and paleoceanography
- ability to work independently and in a well-structured manner
- ability to work across disciplines and demonstrate good cooperative skills
- proficiency in both written and oral English
- willingness to travel (international mobility, research cruise)

We can offer

- a unique opportunity to strengthen an enthusiastic research group working across disciplines
- a stimulating and professionally challenging working environment in an emerging research field
- salary in accordance with the Civil Service pay grade table scale for PhD students
- good welfare benefits

Your application must include

- A brief account of your research interests and motivation for applying for this position (max. 1 page)
- The names and contact information of at least two references. One of these should be the main advisor for the master's thesis or equivalent thesis.
- Curriculum vitae
- Transcripts and diplomas showing completion of the bachelor's and master's degrees, or official confirmation that the master's thesis has been submitted
- Relevant certificates/references
- A list of any works of scientific nature (publication list)
- Any publications in your name
- A summary/abstract of your MSc thesis (max. 1 page)

How to apply

The application and appendices with certified translations into English or a Scandinavian language must be uploaded at our recruitment portal Jobbnorge. Please click on "APPLY FOR THIS JOB" on this page.

If you have any questions about the position, please contact: Dr Jessica L. Ray (+47 56107437, jera@norceresearch.no) or Dr Stijn De Schepper (+47 56107550, stde@norceresearch.no)

Questions about the application process can be directed to HR Adviser Monika Voit (monika.voit@norceresearch.no).

For more information about NORCE and BCCR, please refer to www.norceresearch.no and www.bjerknes.uib.no.

Application deadline:

11 June 2019

Jobbnorge-ID: 170503, Søknadsfrist: Søknadsfristen er gått ut