



UiO : Universitetet i Oslo

The **University of Oslo** is Norway's oldest and highest ranked educational and research institution, with 28 000 students and 7000 employees. With its broad range of academic disciplines and internationally recognised research communities, UiO is an important contributor to society.

The **Natural History Museum** at the University of Oslo is Norway's most comprehensive natural history collection. For almost 200 years, preserved plant specimens, animal specimens, rocks, minerals and fossils have been collected, studied and preserved here. The museum is located at Økern and in the beautiful Botanical Garden, which is not only popular for recreation, but is a scientific collection in itself.

Natural History Museum

PhD Research Fellowship in Evolutionary Genomics and Zoology

Job description

A PhD fellowship (SKO 1017) is available at the Natural History Museum (NHM), University of Oslo. The position is placed in the research group "Frontiers in Evolutionary Zoology".

The fellowship period is for 4 years, with 3 years in total devoted to carrying out a research project outlined below, and 1 year a compulsory work load (25 %) that will consist of teaching and supervision duties, collection work, outreach activities and research assistance.

No one can be appointed for more than one PhD Research Fellowship period at the University of Oslo. Starting date no later than 01.10.2019.

More about the position

The PhD project will address the foundations of speciation and dispersal in intertidal invertebrates characterized by seemingly no dispersal capacity. Many invertebrate species have very wide distribution ranges, but seemingly no or very low dispersal capacities. Some cases are known, for example, as the "Meiofauna paradox". However, detailed studies of some traditionally recognized widespread species revealed complexes of cryptic species. Regardless of whether the distant populations are conspecific or belong to different cryptic species, two general questions can be asked: "Why are these taxa from distant areas so similar?" and "How can they have dispersed over long distances and occupied distant shores in the absence of propagative stages?". The beetle genus *Aegialites* is widely distributed across the northern Pacific Ocean shores, both in Asia and North America where the beetles live on coastal rocks flooded at high tides or sprinkled by waves. These beetles are wingless and have no obvious adaptations to dispersal, yet they occur even on some distant islands that have never been connected to continents.

The first aim of this project is to investigate the evolutionary history of this genus and to test if speciation is driven by vicariance or not. Second, the genome of an *Aegialites* species will be determined to allow genome re-sequencing approaches for the next hypotheses to be tested. Third, genome re-sequencing approaches will be applied to understand the dispersal capacity of *Aegialites* species at different geographical scales and, fourth, to test if hybridization between *Aegialites* species occurs possibly explaining their high morphological similarity. The results will contribute to answering the two more general questions above. Even though field work will be conducted to fill gaps in existing material, it will be necessary to complement these with historical museum material. Therefore, in this project both classical zoological and population and evolutionary genomic approaches will be explored including the usage of historical museum material for molecular studies (often called museomics).

The Natural History Museum has a modern DNA laboratory. The PhD will be associated with the research group "Frontiers in Evolutionary Zoology", specifically Torsten Struck (Professor of Evolutionary Genomics) and Vladimir Gusarov (Associate Professor of Entomology).

Qualification requirements

- A Master's degree or equivalent in biology or related disciplines like bioinformatics.
- Strong motivation for research in zoology and/or genomics.
- Skills in general molecular laboratory practices
- Experience with next-generation sequencing of genomes and working with small amounts of tissue material (i.e., whole genome amplification) is preferable.
- Computing skills and background in bioinformatics are expected for handling and analyzing large data sets emerging from next-generation sequencing approaches.
- Background in entomology, particularly knowledge of beetle morphology and systematics, will be an advantage.
- Communication skills (including written and spoken English)

Grade requirements for admission to the PhD program:

- The average grade point for courses included in the Bachelor's degree must correspond to C or better in the Norwegian educational system
- The average grade point for courses included in the Master's degree must correspond to B or better in the Norwegian educational system
- The Master's thesis must correspond to the grade B or better in the Norwegian educational system

The purpose of the fellowship is research training leading to the successful completion of a PhD degree. The fellowship requires admission to the PhD program at the Faculty of Mathematics and Natural Sciences. Appointment to a PhD research fellowship is conditional upon admission to the Faculty's research training program. A plan for the research training must be submitted no later than two months after taking up the position, and the admission approved within three months.

We offer

- Salary NOK 449 400 - 505 800 per year depending on qualification and seniority as PhD Research Fellow (position code 1017)
- Challenging research questions and friendly working environment
- Full funding of the project research-related activities, including molecular lab work, field work and presentation of results at international conferences.
- Membership in the Norwegian Public Service Pension Fund
- Attractive welfare benefits

How to apply

The application must include:

- Cover letter
- CV (summarizing education, positions and academic work, scientific publications and other relevant experience)
- Copies of educational certificates and transcripts of records
- List of publications and academic work that the applicant wishes to be considered by the evaluating committee
- A one-page statement explaining how a PhD in evolutionary genomics and zoology will fit into the applicant's career plan
- Names and contact details of 2-3 references (name, affiliation, relation to candidate, e-mail and telephone number). The references will be contacted if necessary. Letters of recommendation are therefore not required for the initial application.

The application with attachments is to be delivered in our electronic recruiting system. Foreign applicants are advised to attach an explanation of their University's grading system. Please remember that all documents should be in English or a Scandinavian language.

In assessing applications, particular emphasis will be placed upon the academic and personal ability of the candidate to complete the project within the given timeframe and write a PhD thesis under supervision. Interviews with selected candidates will be arranged.

Formal regulations

Please see the [guidelines and regulations](#) for appointments to Research Fellowships at the University of Oslo.

Please also refer to the English translation of [regulations pertaining to the conditions of employment for research fellowship positions](#).

[A good command of English is required](#)

According to the Norwegian Freedom and Information Act (Offentleglova) information about the applicant may be included in the public applicant list, also in cases where the applicant has requested non-disclosure.

The appointment may be shortened/given a more limited scope within the framework of the applicable guidelines on account of any previous employment in academic positions.

The University of Oslo has an [agreement](#) for all employees, aiming to secure rights to research results etc.

Contact information

About the position and project details:

[Professor and head of the FEZ research group: Professor Lutz Bachmann](#)

[Professor Torsten H. Struck](#)

About administrative questions and the application procedure:

[HR officer Thomas Brånå](#)

Jobbnorge ID: 167875, Deadline: 30.04.2019, Customer reference: 2019/4262