



The University of Oslo is Norway's oldest and highest rated institution of research and education with 28 000 students and 7000 employees. Its broad range of academic disciplines and internationally esteemed research communities make UiO an important contributor to society.

Centre for Ecological and Evolutionary Synthesis (CEES) is a research centre and a section at the Department of Biosciences, University of Oslo. CEES combines a broad spectrum of disciplines (population biology, genomics, statistics, mathematical modelling) to foster the concept of ecology as a driving force of evolution via selective processes, with a corresponding influence of evolutionary changes on ecology. CEES has over 180 members (Professors (20), postdocs/researchers (60), PhDs (35), Master's students (40) and technical and administrative staff) and many guest researchers. The members represent 30 nationalities and constitute a vibrant and creative research environment. CEES coordinate several international networks. The budget = 170 million NOK (about 55 externally funded research projects). CEES successfully completed its 10 year status of Centre of Excellence (CoE) in 2017 and is chaired by Professor Nils Chr. Stenseth.



PhD Research Fellowship in Fish Genomics/Population Genomics

A three-year PhD fellowship position (SKO 1017) in fish genomics/population genomics is available at the [Centre for Ecological and Evolutionary Synthesis](#) (CEES), [Department of Biosciences](#).

The fellowship will be for a period of 3 years, with the possibility of a fourth year with 25% compulsory teaching or consulting. Starting date as soon as possible and no later than 01.04.2018.

The position is affiliated with the research project The Nansen Legacy (<http://nansenlegacy.org>). The Nansen Legacy is the Norwegian Arctic research community's joint effort to establish a holistic understanding of a changing marine Arctic climate and ecosystem. The project will provide a scientific knowledgebase needed for future sustainable resource management in the transitional Barents Sea and the adjacent Arctic Basin. It is a collaborative project between ten Norwegian research institutions, and will run from 2018 to 2023. Activities in the project will include international cooperation, and several cruises with the new, ice-going research vessel Kronprins Haakon.

Job description

The PhD-candidate will work interdisciplinary within the assigned sub-project "Climate change and fisheries: Spatial, environmental variables and genomics" - with the overarching goal to implement and use genomic data into population dynamic models. Research questions will focus on how adaptation to the environment shapes the spatiotemporal dispersal and genetic connectivity of key ecosystem fish species in the northern Barents Sea, i.e. the Atlantic cod (*Gadus morhua*), the polar cod (*Boreogadus saida*) and the capelin (*Mallotus villosus*). To achieve this goal the candidate will use state-of-the-art genomic tools to generate whole genome data from sampled specimens of the above-mentioned species from geographic gradients at the feeding grounds in the northern Barents Sea. This PhD-project will be tightly linked to already ongoing projects such as GreenMar (<http://www.greenmar.uio.no>) and the Aqua Genome project (<http://www.aquagenome.uio.no>). Further, we would like to mention that we are at the moment generating a high quality genome for the polar cod and capelin (estimated finalized by the beginning of 2018). These reference genomes - together with the new version of the Atlantic cod genome (already published) - will be used as a backbone when analyzing the re-sequencing data from the collected samples mentioned above. By genomic scans of these samples, as well as other samples collected in other ongoing projects of the same species within their geographical distribution (e.g., at spawning grounds), the successful PhD-candidate will quantify population structure and identify signatures of directional selection, such as temperature adaptations. Moreover, the genomic information generated within this project will be incorporated into a spatial population dynamics model. The study will derive knowledge with broad management implications, such as where to place marine protected areas and how to investigate sound management strategies for sustainable fisheries under climate change.

Through the Nansen Legacy project, dedicated interdisciplinary summer schools and intensive courses will be organized to strengthen national and international cooperation and integration of students. Furthermore, the project includes a mobility program to ensure national and international exchange.

Requirements

Applicants must hold a master-degree or equivalent, or must have submitted his/her master's thesis for assessment prior to the application deadline within fish genomics, population genomics and/or molecular ecology. It is a condition of employment that the master's degree has been awarded. Candidates are expected to be in the upper segment of their class. Documented expertise within fish genomics/population genomics is required. Extensive knowledge of next-generation sequencing, including laboratory methods, is required. Further, the candidate should be able to document experience within bioinformatic analyses of genomic datasets. An additional background and/or strong interest in statistical modelling, demographic and spatial modelling and/or quantitative population modelling will be a distinct advantage.

We seek a highly motivated, enthusiastic person with the ambition to gain insight and publish papers in leading, international journals, and in possession of good interpersonal skills and willingness to work in close collaboration with others.

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The Faculty of Mathematics and Natural Sciences has a strategic ambition of being a leading research faculty. Candidates for these fellowships will be selected in accordance with this, and expected to be in the upper segment of their class with respect to academic credentials.

The purpose of the fellowship is research training leading to the successful completion of a PhD degree. The fellowship requires admission to the PhD programme at the Faculty of Mathematics and Natural Sciences. The application to the PhD programme must be submitted to the department no later than two months after taking up the position. For more information see:

[Doctoral degree and PhD at the University of Oslo](#)

[Application and admission to the PhD programme in natural sciences.](#)

[Doctoral degree: PhD in Mathematics and Natural Sciences](#)

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

We offer:

- Pay grade: NOK 436 900 - 490 900 per year, depending on qualifications and seniority.
- Attractive welfare benefits and a generous pension agreement, in addition to Oslo's family-friendly environment with its rich opportunities for culture and outdoor activities.

The application must include:

- Application letter including a statement of interest, briefly summarizing your scientific work and interests and describing how you fit the description of the person we seek
- CV (summarizing education, positions, pedagogical experience, administrative experience and other qualifying activity)
- Copies of educational certificates, transcript of records, letters of recommendation
- A complete list of publications and unpublished works, and up to 5 academic works that applicant wishes to be considered by the evaluation committee
- Names and contact details of 2-3 references (name, relation to candidate, e-mail and telephone number)

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 accordance with the University of Oslo's equal opportunities policy, we invite applications from all interested individuals regardless of gender or ethnicity.

The University of Oslo has an [Acquisition of Rights Agreement](#) for the purpose of securing rights to intellectual property created by its employees, including research results.

If you have any questions regarding the application procedure or would like to know more about the project, please do not hesitate to contact:

Dr. Sissel Jentoft: sissel.jentoft@ibv.uio.no

Dr. Anne Maria Eikeset a.m.eikeset@ibv.uio.no

Dr. Kim Præbel kim.praebel@uit.no

For questions about the recruitment system, please contact HR Officer Torunn Guttormsen, +47 22854272, t.s.guttormsen@mn.uio.no

Jobbnorge-ID: 146090, Søknadsfrist: Avsluttet