

Professorship in Population Ecology of Marine Fishes

Applications are invited for a position as professor in the research field of population ecology of marine fishes. The professorship is affiliated with the National Institute of Aquatic Resources (DTU Aqua), Section for Marine Living Resources located in Lyngby.

The research of the section addresses biology and ecology of fishes, population genetics, stock structure and dynamics, development of statistical modelling tools and applications for these areas, as well as bio-physical modelling from an individual organism to complex population dynamics. This includes research on the biological mechanisms behind population fluctuations and development of appropriate mathematical models for assessing the development of fish stocks, how they distribute and interact with each other and the environment, how much they are fished, and the level of exploitation they can sustain within a reasonable prediction horizon. It combines analysis of individual traits in marine organisms, demography, and spatial behaviour and links biological process knowledge with development of statistically based models to interpret noisy data and produce reliable management advice for the exploitation of marine living resources.

Responsibilities and tasks

The professor is expected to lead a scientific section, implying academic, strategic, human, and other resource management as well as active engagement in the department's leadership in helping to develop both other research sections and support functions. The professor's research field will be:

- nutritional and physiological ecology in relation to predator and prey interactions and environmental conditions
- investigation of key population dynamic rates, such as growth and mortality
- life history characterization and fitness optimization, and
- improvement of process models and inclusion of their output into fish stock assessment and prediction for development of the basis for management strategy evaluations.

The innovative focus lies on introducing new molecular biology and microchemical methods for analysing individual metabolism, growth, reproduction and adaptability to heterogeneous and dynamic environmental conditions. Research and education activities are expected to be carried out in close cooperation with other research sections in the department, other units at the university, and other relevant university groups, primarily in Scandinavia and Europe. A geographical focus will be to foster research, education, and training in Greenland in cooperation with the Greenland Institute of Natural Resources and the University of Greenland, which implies regular work and teaching stays on Greenland. The professor should contribute to advice provision on the status of fish stocks and the associated fisheries management to national and international advisory bodies, management authorities, and other stakeholders.

The professor is expected to take a lead role and to contribute substantially to the development of education activities and strategies for the department on BSc-/BEng-, MSc-, and PhD level, including supervision and training of PhD students and postdocs. For international candidates, DTU offers Danish language courses for the purpose of being able to teach in Danish within the first 2-3 years.

Qualifications

The position is intended for a candidate with an internationally acknowledged track record in research addressing the ecology of fishes, from individual to population level, including physiology, nutrition, migratory and feeding behaviour in relation to prey, predators, and environment, employing novel combinations of micro-chemical and molecular techniques. The candidate is expected to have experience in research on population traits considering variations in environmental and climatic conditions as well as fisheries. The candidate should have knowledge on the inclusion of results from these research fields in population dynamic models, stock assessment and advice on fisheries management. Employment requires innovative research at high international level within relevant research themes and a track record in research leadership, including i) visionary strategic development of the research area, ii) leading multidisciplinary research groups, and iii) planning, implementing, and running interdisciplinary research projects. Furthermore, the candidate is expected to have extensive experience in teaching and educational development at all academic levels, including supervision and training of PhD students and postdocs and recruitment of students at all levels.

Assessment

In the assessment of the candidates, consideration will be given to:

- documented experience and quality of teaching and curriculum development
- research impact and experience, funding track record, and research vision
- societal impact
- documented innovation activities, including collaboration with industry
- international impact and experience
- leadership and collaboration
- communication skills.

Consideration will also be given to:

- scientific production at international level and research potential
- visions for the research area
- ability to lead and develop a large multidisciplinary research team including excellent collaborative skills
- teaching experience at all academic levels and experience within educational development of courses and study programmes, especially at MSc level
- experience in supervision and training of PhD candidates and postdocs
- capability to contribute to the development of research and education strategies as well as internal and external cooperation
- ability to promote and utilize research results and provide advice to public authorities and international advisory bodies

We offer

DTU is a leading technical university globally recognized for the excellence of its research, education, innovation, and scientific advice. We offer a rewarding and challenging job in an international environment. We strive for academic excellence in an environment characterized by collegial respect and academic freedom tempered by responsibility.

Salary and terms of employment

The appointment will be based on the collective agreement with the Danish Confederation of Professional Associations. The allowance will be agreed upon with the relevant union.

Further information

Further information may be obtained from Head of Department Fritz Köster, +45 3396 3300, email: fwk@aquu.dtu.dk or Head of Section Prof. Henrik Mosegaard, +45 3588 3461, email: hm@aquu.dtu.dk.

You can read more about DTU Aqua on www.aqua.dtu.dk

Application procedure

Please submit your online application no later than **XXX 2018 (local time)**.

Applications must be submitted as **one PDF file** containing all materials to be given consideration. To apply, please open the link "Apply online", fill out the online application form, and attach **all your materials in English in one PDF file**. The file must include:

- Application (cover letter) addressed to the President
- CV
- A vision for future research
- Teaching and research statement, with a focus on the "Assessment" bullet points listed above
- Documentation of previous teaching and research, as related to the "Assessment" bullet points listed above
- List of publications indicating scientific highlights
- H-index and ORCID (see e.g. <http://orcid.org/>)
- Diploma (MSc/PhD).

Applications and enclosures received after the deadline will not be considered.

All interested candidates irrespective of age, gender, disability, race, religion, or ethnic background are encouraged to apply.