

## **Professor in Innovation of Fishing Gear**

DTU invites applications for a position as professor in the research field of fishing gear innovation. The professorship is affiliated with the National Institute of Aquatic Resources (DTU Aqua), Section for Ecosystem based marine management, and is based in Hirtshals, North Jutland. The successful candidate is expected to lead the newly established research group on innovation in fisheries technology.

The section for Ecosystem Based Marine Management conducts research on the direct and indirect effects of fishing and other anthropogenic activities on the marine environment. The aim is to develop knowledge and tools for use in an evidence based ecologically and economically sustainable management. Activities of the section are structured in four research areas. Marine habitats focuses on the importance of habitats for fish stock dynamics. Fisheries technology addresses the efficiency, selectivity, and environmental impact of the fishing process.

The aim is to reduce unwanted bycatch of fish, marine mammals or seabirds and the impact on the marine environment, while improving the efficiency and economic competitive abilities of the fishery. Research in Fisheries management creates the scientific basis for advice on effects of management measures, such as limits to the amount of fish landed, closed areas and multiannual management plans and for determining their likely effects on the ecosystem and the value of the fishery. Research in Ecosystem effects of fishing focusses on the quantitative analyses of indicators and reference levels for the interaction between fisheries and marine mammals, seabirds and benthos and the contribution of these and other indicators to Good Environmental Status under the European Marine Strategy Framework Directive. It further addresses the interactions between the ecosystem, fisheries, and other maritime activities, providing the basis for advice on reducing conflicts, and the management of marine ecosystems and maritime activities in general.

### **Responsibilities and tasks**

The professor's research field is the innovation of the catch process, so it balances both an increase in profitability in fisheries and the catch composition more closely reflects the sustainability of the stock status and productivity of the target species. The research aims at meeting requirements in fisheries management for greater species and size selectivity and reduced environmental impact in fisheries. Recent changes in the fisheries policy towards result and performance-based management allows for greater diversity in the development of fishing gear. This provides the basis for close cooperation with the industry, i.e. gear and equipment manufacturers, electronics companies, fishermen, the processing and service industry, with the aim of developing new fishing gear through a combination of knowledge about fish behaviour, fishing gear performance, and underwater observation technology with practical experience from the industry. More intelligent and targeting fishing gear will improve both economic and environmental sustainability of our fisheries.

The research is conducted in a combination of analysing data acquired from commercial fisheries, computer-based simulations, flume tank tests and sea trials in an interlinked approach. The professor is expected to take the lead in implementing and running larger international and national multidisciplinary research projects and to couple these research activities and generated scientific results to innovation, education and advisory activities.

The successful candidate is expected to take a lead role in teaching at the BSc, MSc, and PhD levels, including supervision and training of PhD students and postdocs as well as contributions to lifelong learning activities. For international candidates, DTU can provide Danish language courses enabling the candidates to teach in Danish within 2-3 years.

The professor is further expected to advice on developing the Common European Fisheries Policy and its national implementation, especially with respect to mixed fisheries and implementing the landing obligation, both requiring increased capabilities of fisheries to determine catch composition.

### **Qualifications**

The position is intended for a candidate with a track record of internationally acknowledged research in fisheries technology, innovative cooperation with the fishing industry, and experience in teaching and training at different university levels as well as giving advice to public authorities, international advisory bodies and other stakeholders. Candidates should have well-documented international recognition within their research

field, being visionary in their scientific and technical approach and able to initiate and coordinate research programmes. This includes a documented record in leadership of multidisciplinary research projects, including planning, implementing, running, and reporting activities to funding organizations, international advisory groups, the scientific community, stakeholders, and the public at large. Furthermore, knowledge of and visions for integrating research findings into fisheries management procedures and utilization of research results for improving the ecological and economic performance of capture fisheries are expected.

Employment requires innovative research at highest international level within relevant research themes, including visionary strategic development of the research area as well as planning, implementing, and running interdisciplinary research projects. The professor should have experience in teaching and educational development at different academic levels, including supervision and training of PhD students and postdocs.

### **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 commercialization and collaboration with industry
- International impact and experience
- Leadership and collaboration
- Communication skills

Consideration will also be given to:

- scientific production and research potential
- experience in giving advice to national authorities, international advisory bodies, and stakeholders
- research leadership in implementing and coordinating multidisciplinary research programmes
- ability to promote and utilize research results in management advice

### **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 Confederation of Professional Associations. The allowance will be agreed with the relevant union.

### **Further information**

Further information may be obtained from Institute Director Fritz Köster, email: [fwk@aqua.dtu.dk](mailto:fwk@aqua.dtu.dk), cell phone: +45 21362805 or Section leader Anna Rindorf, tel.: +45 3588 2278, email: [ar@aqua.dtu.dk](mailto:ar@aqua.dtu.dk).

You can read more about DTU Aqua on [www.aqua.dtu.dk](http://www.aqua.dtu.dk)

### **Application procedure**

Please submit your online application no later than **XXX 2019 (local time)**. Apply online at [www.career.dtu.dk](http://www.career.dtu.dk).

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.