

Spatial dynamics and management of small pelagic fish

We invite applications for a fully funded 3-year industrial PhD position within fisheries science, jointly hosted by Danish Pelagic Producers Organisation (DPPO) and DTU Aqua (Technical University of Denmark). The position is funded by Innovation Fund Denmark under the Industrial PhD Programme and will start May 1st, 2026 (or as soon as possible thereafter). This Industrial PhD is designed to bridge cutting-edge academic research and real-world fisheries management, embedding the PhD candidate directly in the pelagic fishing industry while ensuring strong academic training and supervision at a globally recognized technical university in Denmark (DTU).

This Industrial PhD project will develop state-of-the-art spatially explicit stock assessment and management tools to evaluate how such spatial changes affect fish stocks, fisheries efficiency and displacement, and long-term ecological and economic sustainability. The project will deliver directly applicable tools for fisheries management and industry decision-making, while contributing novel scientific advances to international advisory processes (e.g. ICES).

The successful candidate will be based in a supportive and vibrant research environment at DTU Aqua in the Section for Ecosystem-based Management, and as an integrated member of the Pelagic Academy research team at DPPO's head office in Copenhagen.

The position is open to both national and international applicants.

Scientific context and project description

Small pelagic fish are central to Northern European marine ecosystems and to the economic viability of pelagic fisheries. Fisheries management in the North Sea increasingly relies on spatial measures, including permanent closures, rotational fishing systems, and large-scale access restrictions, to balance ecological sustainability with fishing opportunities. The ecological consequences of these spatial management measures remain poorly quantified, particularly when fishing effort is displaced rather than reduced.

The PhD project will investigate how spatial fisheries management influences small pelagic fish populations and fishing activity, using three complementary case studies from the North Sea.

The project seeks to spatially resolve survey and fishery data to quantify impacts on population dynamics, spatial distribution, and demographic structure. The project will evaluate how spatial modelling reduces uncertainty and improves scientific advice for forage fish in the North Sea.

Spatial management strategies will be evaluated against precautionary, ecosystem-based, and maximum sustainable yield objectives, with results communicated through advisory processes and close collaboration with industry partners, as well as researchers at the IMR, Norway and SLU Aqua, Sweden.

Responsibilities and qualifications

Your main responsibilities will include:

- Analyse fisheries redistribution caused by spatial closures and zoning
- Work directly with industry data (logbooks, VMS, surveys, Fully Documented Fishery) and participate in fishing-related activities
- Develop spatially explicit stock assessment models for small pelagic fish
- Conduct Management Strategy Evaluation (MSE) of alternative spatial management options
- Collaborate closely with scientists at DTU Aqua, IMR, SLU Aqua, and DPPO
- Participate in ICES working groups and stakeholder meetings
- Publish peer-reviewed scientific articles and disseminate results to industry and authorities

Research stays at IMR (Bergen, Norway) and shorter stays at SLU Aqua (Lysekil, Sweden) are planned as part of the PhD.

The ideal candidate is a highly motivated individual with a strong interest in fisheries science and statistical modelling within an ecologically relevant context. You are expected to have strong quantitative and analytical skills (e.g. R, modelling, statistics), interested in applied fisheries science at the science–industry interface, possess a strong scientific integrity, work independently and enjoys collaboration across disciplines and can communicate effectively in written and spoken English. You are not expected to know or learn Danish. Experience with fisheries data, spatial analyses, or stock assessment models is an advantage, but not a strict requirement.

We offer

The PhD position offers a unique opportunity to conduct state-of-the-art research in the intersection between modern fishing industry and a globally recognized technical university. We offer a rewarding and challenging job in an international environment, where academic excellence, collegial respect and solutions that can make a difference for society are valued.

You can read more about [career paths at DTU here](#) and DPPPO here www.dppo.dk.

Salary and appointment terms

The successful candidate is expected to start on May 1st, 2026. Salary and appointment open for negotiations.

Further information

You will be based both at DTU Aqua in Lyngby, 16 km north of Denmark's capital, and DPPPO within the heart of [Copenhagen](#). Copenhagen is a highly international city (basically everyone speaks English), with ample opportunities for cultural and recreational activities, and Denmark has a very high standard of living.

If you are applying from abroad, you may find useful information on working in Denmark and at DTU at [DTU – Moving to Denmark](#). You can also read more about DTU Aqua [here](#).

Please do not hesitate to contact Claus R. Sparrevojn (DPPPO, crs@pelagisk.dk) or Nis Sand Jacobsen (DTU Aqua, nsja@aquu.dtu.dk) with questions about the position, project, application requirements (detailed below), or living in Denmark.

Eligibility – important information for Industrial PhD requirements

Please note: This position is governed by the Industrial PhD rules of Innovation Fund Denmark, and only candidates who meet the formal requirements can be considered.

Education requirements:

You must hold a two-year Master's degree (120 ECTS) or an equivalent foreign degree and have a project-relevant academic background (e.g. fisheries science, ecology, quantitative biology, applied mathematics, statistics, or similar)

Grade requirements (very important). You must meet one of the following:

For Danish degrees:

- Bachelor's + Master's combined weighted average of at least 8.2 (7-point scale), or
- Master's degree alone with weighted average of at least 9.5 (7-point scale)

For non-Danish degrees:

- You must be documented to be among the top 30% of your year group (Bachelor's + Master's combined)

In cases where grade requirements are not met, exemption may be considered if the candidate can document compensatory qualifications, provided that the candidate has either:

- as lead author, published at least one peer-reviewed, project-relevant article in a recognised scientific journal and/or at a recognised scientific conference, or

- at least one year of professional experience within the project-relevant subject area and, as co-author, published at least one peer-reviewed, project-relevant article in a recognised scientific journal and/or at a recognised scientific conference.

Publications and professional experience intended to be used as compensatory factors must be clearly documented in the CV. In addition, the application must include a brief statement describing the academic relevance and reputation of the journal or conference.

Documentation must follow Innovation Fund Denmark guidelines, including grade conversion forms where relevant. You can find out more by reading the [Guidelines for Industrial PhD](#). Candidates who do not meet these requirements cannot be enrolled, regardless of experience.

The scholarship for the PhD degree is subject to academic approval, and the candidate will be enrolled in one of the general degree programmes at DTU. For information about our enrolment requirements and the general planning of the PhD study programme, please see the [DTU PhD Guide](#).

Assessment

Interviews for the PhD position will be held either online or in person in Copenhagen. You will be notified whether you have been short-listed for an interview within approximately two weeks after the closing date for applications.

Application procedure

Your complete application must be submitted no later than **1. March 2026**. Applications should be sent to mf@pelagisk.dk.

Applications must include:

- A letter motivating the application (1 page cover letter)
- Curriculum vitae
- Documentation on the eligibility for Industrial PhD requirements (see above)
- Grade transcripts and BSc/MSc diploma
- Excel sheet with translation of grades to the Danish grading system (see guidelines and [Excel spreadsheet here](#))
- Contact information (name, affiliation, e-mail, and phone number) for at least one but ideally two people who have agreed to act as academic references for you, and who can comment on your suitability for a PhD position
- Other material that you would like to include in the evaluation of your application

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

Danish Pelagic Producers Organisation (DPPO) - Represents the 10 largest Danish pelagic vessels. DPPO is a key player and stakeholder in the management of fisheries, fish stocks and the marine environment in the North East Atlantic and Baltic. The DPPO-vessels account for more than 1/10 of all fish caught by EU vessels. Since most pelagic species are regulated through an Individual Transferable Quota (ITQ) system and the pelagic vessels target a range of different species; sustainability and transparency are crucial for their businesses. Hence a key objective of the DPPO is to enable a management, e.g. by providing alternative data sources, which will help secure a maximum sustainable yield (catches and economics) in the long term. Since 2022 DPPO has implemented a Fully Documented Fisheries programme using cameras, sensors and AI to document all fishing activities.

DPPO research programme, Pelagic Academy, comprises a mix of PhD's, scientific interns, students, in house scientists, research activities on board member vessels and partnerships with scientific institutions, NGOs, organisations and authorities.

DTU Aqua – the Danish National Institute of Aquatic Resources – investigates the biology and population ecology of aquatic organisms, aquatic physical and chemical processes, and ecosystem

structure and dynamics. As a leading international institute for aquatic sciences, fisheries, and aquaculture, DTU Aqua conducts basic and applied research, provides advice, educates at university level, and contributes to innovation in sustainable exploitation and management of aquatic resources. The goal of DTU Aqua's research is to build knowledge of how aquatic organisms and ecosystems function and interact, and to address the environmental consequences of human activities in the aquatic environment.

Technology for people DTU develops technology for people. With our international elite research and study programmes, we are helping to create a better world and to solve the global challenges formulated in the UN's 17 Sustainable Development Goals. Hans Christian Ørsted founded DTU in 1829 with a clear vision to develop and create value using science and engineering to benefit society. That vision lives on today. DTU has 12,900 students and 6,000 employees. We work in an international atmosphere and have an inclusive, evolving, and informal working environment. DTU has campuses in all parts of Denmark and in Greenland, and we collaborate with the best universities around the world.