

MSc projects available in Marine ecotoxicology



The research team of Nansen Legacy project at UiT (<https://arvenetternansen.com/>) is seeking for highly motivated master students to perform two master projects within marine ecotoxicology at the Institute for Arctic and Marine Biology, research group “Arctic Marine Systems Ecology”.

Background and aim

Less sea ice in Arctic regions makes Arctic waters more accessible for industrial activities such as maritime shipping and oil and gas exploration but, it also increases the risk for pollution in these pristine regions. Adverse effects of oil spills are well documented for fish after tanker accidents or accidents at oil platforms such Deep Water Horizon in the Gulf of Mexico. Relatively little is, however, known about the effects of oil spills in Arctic regions and the Nansen legacy project aims to improve our understanding of how human activities will influence the northern Barents Sea ecosystem in the near future. To achieve this, we study the effects of crude oil exposure on a key species of the the northern Barents Sea, polar cod (*Boreogadus saida*). We want to understand how effects related to crude oil exposure affect the life cycle of polar cod, a species found in a habitat that is characterized by constantly low water temperatures and a high seasonality in food availability throughout the year. A special focus of our work is on the dynamics in energy reserves during spawning when polar cod invests a high amount of their stored energy reserves towards reproduction.

What will be the focus of the master thesis and the activities you will perform?

- Participation in our field experiment with polar cod in Kårvika, Ringvassøya (start in the beginning of December 2018 until April 2019)
- Investigate energy allocation in individual fish with the help of different methods (adiabatic bomb calorimetry, cellular energy allocation assay)
- Study the reproductive development of polar cod with the help of histology
- Presentation of results at the NETS 2020 in Bergen

If you are interested, please contact us and send your CV to:

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