



Topic/Title (Norwegian)

Effekten av settefiskmiljø på hjertemorfologi hos norsk oppdrettslaks

Topic/Title (English)

Effect of rearing conditions on heart morphology in Norwegian farmed Atlantic salmon

Picture

Summary (Describe the topic/thesis, type of thesis work: field work, laboratory work, literature study)

The thesis will be associated with the FHF-financed project Optismolt (Project number 901793) where we investigate some key input factors in the freshwater phase for generating healthy and robust salmon. The main factors are temperature, light (winter signal) and salinity. We sample around 20 fish groups three times during the freshwater period and twice during the sea water phase (approx. 100 sampling points and 20 hearts per sampling point). From these sample points we have collected whole salmon hearts. The student's assignment will be to characterize the heart morphology according to the technique described by Ida Beitnes Johansen and her team in the project Helsmolt ([FHF 901586](#)), and describe the development on group level from freshwater stage to seawater. The student will primarily focus on samples collected just prior to sea water transfer and after 6 months in the sea. Fish groups showing deviating heart morphology will be characterized also at earlier timepoints in the freshwater stage. The hands on technique is mainly photography and measurements and the work will be done at a lab at NMBU Faculty of Veterinary Science. Further the student is expected to make some statistical analysis of the data derived from the analysis and additional data collected by the Optismolt project.

We expect the work to be published in a scientific peer reviewed journal, either as a stand-alone publication or together with other results from Optismolt. The student is expected to participate in the writing process and be a co-author of the publication.

Subject area (keywords)

Fish health, smoltification, fresh-water conditions, heart health

Language thesis (Norwegian and/or English)

Preferably Norwegian, but English is also possible.

Bachelor or Master thesis

Master thesis

Credits

30



Bachelor or Master thesis BIOVIT 2023/24

Project period

Januar 2024 - May 2024

Project/company

NMBU Faculty of veterinary sciences - Optismolt - Project number 901793

Please contact:

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