



Topic/Title (Norwegian) Genetisk grunnlag for alder ved modenhet hos vill laks

Topic/Title (English) Genetic basis of age at maturity in wild Atlantic salmon

Summary

Age at maturity is a key trait for Atlantic salmon in both aquaculture and wild salmon. Genome wide association in wild Atlantic salmon discovered 2 large effect loci determining age at maturity, but the power to detect smaller effect loci was low because of the small sample size (n=1400). A larger scale GWAS in aquaculture salmon (n=11000) suggested an additional >100 small effect genes are involved in determining age at maturity. However, it is not clear if these loci also impact age at maturity in the wild because of the low sample size originally tested. By expanding the original wild data set to 4000 individuals we will test if smaller effect loci also contribute to age at maturity in wild salmon. This will allow us to test if the polygenic basis of age at maturity is conserved between wild and aquaculture environments.

Subject area (keywords) Atlantic salmon, statistical genetics, GWAS, age at maturity

Language thesis (Norwegian and/or English) English

Bachelor or Master thesis

Master thesis

Credits 60

Project/company

Data collected as part of QuantEscape2

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