



Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

**Dept. of Wildlife, Fish, and Environmental
studies**

[2018-04-26]

Master Thesis in Fish Ecology (30 credits)

Recruitment success of Baltic salmon as an indicator of spawner health status

During the last four years the number of multi-seawinter salmon returning to the Vindel river has declined markedly. The result of this is also apparent in the electrofishing data, where one summer old salmon parr have had very low densities. A corresponding decline in recruitment in the other wild salmon rivers in northern Sweden is not observed, when comparing the overall mean young of the year densities. However, a decline in the recruitment in the other rivers may be apparent when analysing the data at a finer spatial resolution than the entire river. It seems that the spawners, at least in the Vindel river, has been in a poor condition during the last years. If the condition of spawners in the other rivers has been somewhat better, but still not as fit as they used to be, many spawners might be expected not to reach the uppermost spawning areas . One might therefore expect a declining gradient in the density of the one summer old parr with increasing distance from the coast. This hypothesis can be tested using available electrofishing data. In addition, it will be possible to join the electrofishing surveys during the autumn 2018 to experience the recruitment success/failure directly in the field.

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