



Thesis projects about salmonids in river Dalälven (candidate/master, 15-30 hp)

SLU's Fisheries research station in Älvkarleby produce c.a. 140 000 salmon and trout per year for river Dalälven. A prerequisite for environmental friendly and ethical aquaculture is that research is conducted on breeding and rearing of fish. Here we have ongoing research and environmental analysis, and we have aquariae, creeks and streams for experiments and in addition skilled personnel.

We are looking for students for several projects:

- 1. Survival of salmon and trout smolt.** The cormorant has been identified as a potentially important predator on smolt (salmonid juveniles) but scientific estimates from today's situation in river Dalälven is missing. Since some of the smolt is tagged with pit-tags it is possible to look for these tags in cormorant colonies. The project involves scanning after pit-tags in cormorant colonies along the coast but may also include investigations of regurgitates from cormorants or other fish-eating birds. The field part is conducted after the breeding season of the birds, i.e. sep-nov 2020.



- 2. Enhanced quality of stocked fish.** It is desirable that the stocked fish similar to wild fish, but a common problem is that reared fish have damaged fins and also grows too fast and becomes too fat compared to wild fish. In this project the effect of different feeding regimes on condition, survival and fin damage is investigated. Also experiments with different densities of fish can be included. The project can take place almost anytime between march and december.



- 3. Historic trends of spawning fish in river Dalälven.** Breeding and rearing has taken place at the fisheries research station for almost 100 years. During this time data on the wild fish migrating from the sea has been collected which makes it possible to study changes in salmon and trout populations in the river in for example size, condition eggsize etc. This project can either be fully theoretical and take place anytime during the year or involve some practical work during either the fishing (aug) or breeding (oct) season.



Depending on previous education and interest the thesis can either be in ecology or environmental analysis and there is room for research questions of your own making. The extent is flexible and the thesis can be done either on candidate or master level.

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