



## Network meeting: ongoing and planned projects in the Vindel River area

Umeå, Väven conference venue 12 March 2015

**Participants:** Johanna Gardeström, Christer Nilsson, Marie Kårebrand, Elisabet Carlborg, Daniel Holmqvist, Hans Lundqvist, and Daniel Palm (all in the Vindel River LIFE project team), Johan Leander (SLU), Stig Westberg (Vindel municipality), Stefan Ågren (Umeå municipality), Roger Vallin, Magnus Lindberg, and Henrik Karlborg (CAB Västerbotten); Malin Karlsson, and Ritu Andersson (Vindelälven MAB)

*On 12 March, the Vindel River LIFE project arranged a meeting together with other project based in the Vindel River area. The idea was to network: share information about our work and also to gain knowledge about what others are doing or planning to do in the river catchment. Networking can pin down common interests or elements where collaboration can have synergistic effects. The Vindel River LIFE project hopes to find future collaborations which can last "after Life". The meeting participants were the Vindel River LIFE project team, researchers, staff from the Vindelälven MAB office, county administration office, and from Umeå and Vindel municipalities.*

Johanna Gardeström, the project leader of Vindel River LIFE, gave a short presentation about the project, with focus on the results. She further presented Retention for LIFE, a planned LIFE project which project proposal was submitted in October by Umeå University in collaboration with SLU, FAB, SwAM, Sveaskog, the Swedish Forest Agency, and WWF. Johanna also talked about Integrated LIFE projects and the difference between these and ordinary LIFE projects.

Christer Nilsson, the coordinator of Vindel River LIFE, presented research work that he and coworkers at UmU are planning on doing in the Vindel River area within the funding he recently received from the Swedish EPA (5.2 million SEK). They will mainly work in the catchments of the Vindel River LIFE's Demonstration sites. The main topic of their study is why restoration results in so few positive responses on biodiversity. Christer, Johanna and some colleagues at UmU published a paper in 2014 in which seven possible explanations to for this are suggested: 1) Poorly defined objectives, 2) Poor design and knowledge about factors limiting populations, 3) Standardized or appropriate follow-up methods have not been available or used, 4) Chosen species may not be representative or indicative of the entire community, 5) Pools of colonist populations were not available, 6) Time since restoration has been too short for recovery to take place, 7) Recovery has already taken place. Within the research program financed by the SEPA, Christer and coworkers will investigate the relative importance of these factors in explaining the Vindel River case.

Christer also presented the main ideas behind the Horizon 2020 application that he is involved in to promote more effective ecosystem restoration in the EU. He is writing this together with researchers from seven other EU countries. The focus will be on analyzing the effects of already completed restorations (ecologically, physically, socially, and economically) and the objective is to identify challenges, to offer advice on how to tackle the challenges, and to create learning processes based on previous knowledge. They will use a catchment approach so that all habitats are taken into account, however the streams will be in focus. Christer's part covers follow up work in the Vindel River tributaries, restored by Vindel River LIFE.

Malin Karlsson, the project manager of Vindelälven MAB (Man and the Biosphere) presented the coming year's work with making the river an established Biosphere area. The core of MAB areas is sustainable development and the keywords are *develop*, *protect* and *support*. Recently a steering group has been presented, which includes Christer Nilsson (Vindel River LIFE). This group will meet 3-4 times a year. At the moment, a Biosphere office is being set up in Vindel. The Vindelälven MAB communicator, Ritu Andersson did also participate in the meeting.

Stefan Ågren from Umeå municipality and the Ume-/Vindel River fishery advisory board presented how they have worked to make people report fish catch in the Vindel River and the lower Umeå River. Until now there has been no control over how much the anglers actually catch in the river and of this, how much they keep/ release back. The key issue in this work has been to involve and engage the fishing right owners, i.e., the fishing management organizations. This has been a challenge since there are >40 of these in the Vindel River catchment area. The solution has been digital fishing permits, which the anglers can buy on [www.fiskekort.se](http://www.fiskekort.se). By signing up on the webpage, they will automatically receive text messages reminding them to report back information such as the number of fish caught, species, length, weight, sex etc.

Daniel Holmqvist gave an overview of what has been done with the money that Vattenfall gives to the fishing right owners as a compensation for the damage that Stornorrfor's hydropower plant has on fish migration. Today the compensation money is controlled by the Foundation "Vindelälvsfiske" which support and develop the rural Vindel River area and its people by giving grants to actions and projects that benefit fisheries development in the Vindel River and its tributaries. The statutes states that the Foundation will operate for at least 10 years. Apart from fishing management areas and other owners of fishing rights, other associations, companies, universities, and municipalities are also eligible to apply for grants. However, the planned work needs to have clear support among the fishing right owners and a clear relation to the overall Foundation goal. It is the steering group of the Foundation that decides about who or what organization/projects that will get money from the 3-4 calls per year.

Daniel Palm presented planned work with trying to reestablish trout in Falåströmsbäcken by restocking. This is a tributary that Vindel River LIFE has restored with demonstration methods however brown trout has not established there. Previous restocking attempts in the Vindel River area using +1, +2, and +3 years fry not been successful. Therefore Daniel and colleagues plan to release fish eggs instead, which has been reported very successful in restocking efforts in Norway. The eggs that will be used have been collected from fish caught by the hydropower plant Stornorrfor's and then farmed in tanks. By doing controlled pairing of parental fish, the eggs and hence the offspring, will be genetically distinct from other trout in the tributary. The plan is then to

do follow-up studies on: 1) fish egg and fry survival, water chemistry, and predation; 2) fish movement by electrofishing surveys; 3) Emigration from tributaries (by using PIT-tag marking), compared with natural stationary populations; 4) Re-capture in the smolt trap in Norrfors (PIT-tag, genetics); 5) Re-capture of adult fish in the fish ladder (PIT-tag, genetics).

Johan Leander, SLU, presented a telemetry study he has done on the introduced lake trout in Gauträsk, a Vindel River lake near Ammarnäs together with Gustaf Hellström (Umu). By implanting acoustic transmitters and deploying 35 acoustic receivers evenly distributed in the lake, they have managed to identify movement corridors and distribution patterns of the fish in lake Gauträsk.

Hans Lundqvist presented ongoing and planned projects in which Hans Lundqvist and the department of Wildlife, Fish, and Environmental Studies at SLU are involved in. In the Vindel River, river Sävarån and river Rickleån, they have received 1.3 million SEK to monitor salmon migration. They have also received some money for finding ways to facilitate the kelt migration (spawnd salmon) downstream, passed Stornorrfor's hydropower station (in Ume River, downstream of Vindel River), to the ocean. They have further applied for money for a new smolt trap by the hydropower station in Stornorrfor's. SLU have together with Luleå Technical University and the hydropower company Skellefteå Kraft applied for 1 million SEK to evaluate how well fish can pass through a new turbine in a hydropower station in River Rickleån. Hans Lundqvist and SLU are also part of a larger research grant application for "Network on Climate-Hydrology-Ecology in Arctic Water Resources Research"

Stig Westberg presented the Leader application that Vindel municipality submitted in December 2014. The Leader program would support 1) already generated cooperations in the Vindel River area, 2) the work with getting salmon and trout past Stornorrfor's power plant, 3) the coastal fishery with introducing their products on the regional market, 4) local fishing tourism entrepreneurs to develop and reach out to larger markets. The Leader program would also work hard with making Vindel River more famous among anglers.