

Masters Degree Project in restoration ecology 30/45/60 hp/ETCS



A new large FORMAS-funded project will evaluate the effect of rewetting drained peatlands on hydrology, water chemistry, greenhouse gases, and vegetation. Many drained peatlands in Sweden are currently being rewetted and restored by society, but we still don't know how successful these restoration efforts are or how quickly we'll be able to restore ecological functions like better water quality, increased water retention, and a stronger carbon sink. Furthermore, to what extent plant communities control such functions is little researched. Field sites are being established across Sweden but specific student projects can be conducted in one field site. Student projects can involve substantial field sampling, using field-based scientific equipment and/or traditional vegetation surveys, or data synthesis and modeling. The large breadth of the research makes it possible for a wide range of studies, these can for example include:

- How is vegetation composition regulating temperature and evaporation?
- How fast do rewetted peatlands plant communities move towards natural peatlands?
- Is peatland water quality determined by vegetation composition?
- Can plant community composition predict greenhouse gas balance?
- How is rewetting affecting the water flow and balance?
- How can we use remote sensing (e.g., drones) to characterize rewetted peatlands?
- Developing new techniques to measure peatland environmental variables for large-scale monitoring of rewetted peatlands
- How to predict rewetting effects through modelling
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The student will conduct field work (some projects do not require field work) during **summer/fall 2023**, but winter sampling can be included for 60hp (or projects starting later). Travel costs and accommodation are covered by the project.

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