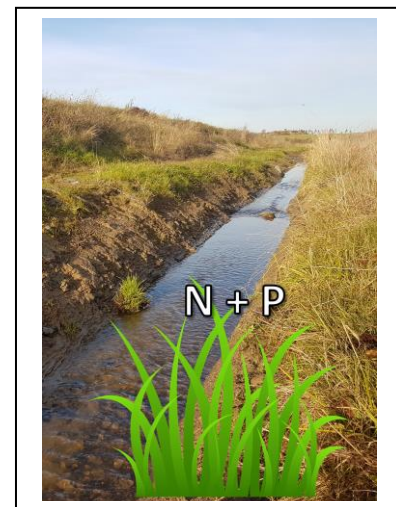


## The role of macrophytes in controlling the effectiveness of remediated ditches in Sweden

**Credits:** 30 credits  
**Level:** Master  
**Subject:** Environmental Science  
**Start:** Anytime, however the sampling will be conducted June-September



### Background

Remediation of agricultural ditches aims to convert traditional narrow and steep agricultural ditches into streams with ability to increase water, nutrient, and sediment retention. As such they are measures to reduce eutrophication but a lot of factors can control their effectiveness. This project focuses on **understanding the role of stream and terrace macrophytes** in controlling water quality in two-stage ditches in Sweden.

### Objectives

To identify and catalogue functional groups of terrestrial and aquatic macrophyte abundance on terraces and in stream of selected remediated ditches in Sweden during summer months. To estimate plant nutrient uptake weighted against coverage. To analyse harvested vegetation by the end of summer and analyse for nutrient content ( $\text{NO}_3\text{-N}$ ,  $\text{NH}_4\text{-N}$ , TP). To calculate and evaluate macrophyte-derived water quality indicators.

### Performance

The work involves:

- Field and laboratory measurements,
- Statistical analysis of a large chemical dataset and GIS analysis of spatial data,
- Literature review and report writing.

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