Master project in Disturbance Ecology and Statistical Modelling

“Impacts of multiple environmental disturbances on ecosystem metabolic rates inferred from high frequency sensor monitoring”

Start date

FLEXIBLE but PREFERABLY BEFORE APRIL 2020

Application

The project is open for application of Master candidates with strong motivation on disturbance ecology and statistical modelling. Please contact Silke Langenheder (silke.langenheder@ebc.uu.se) or Pablo Urrutia Cordero (pablo.urrutiacordero@ebc.uu.se) from Uppsala University (Limnology Unit) for further information.

Background and project description

The project aims to determine the impacts of multiple environmental disturbances on ecosystem metabolic rates (gross primary production, ecosystem respiration and net ecosystem production). The candidate will use an extensive and unique database generated with a modularized experiment conducted along a latitudinal gradient in Scandinavian lakes during summer 2017 (see one of the sites in the picture below). Data will be analyzed using developed R packages for handling high frequency sensor data and calculating ecosystem metabolic rates from dial oxygen measurements. We are therefore seeking a highly motivated candidate with an interest in technical and statistical methodology and an affinity for data analysis in R. The knowledge generated within the project will be highly valuable for anticipating potential changes in lake functioning in response to environmental disturbances. The project also aims to publish the results in a high-impact scientific journal.

![Lake Sampling](image-url)