PROGRAMUL DE COOPERARE ELVEȚIANO-ROMÂN
SWISS-ROMANIAN COOPERATION PROGRAMME

The impact of cyanobacterial blooms triggered by nutrient pollution on aquatic environments, in the context of climate change (Acronim: Cyanoarchive)

Starting Date 1.01.2013

Duration 36 Months

Discipline Aquatic Ecology

Main Goals

- Reconstruct the history of cyanobacterial blooms from lake sediments
- Understand the occurrence of cyanobacterial bloom in Danube Delta Lakes
- Estimate the impact of cyanobacteria on zooplankton

Activities

- Evaluation of the physio-chemical parameters of 24 shallow lakes from the Danube Delta
- Assessment of structural parameters of plankton and macrophytes communities
- Develop a method to identify cyanobacteria and their toxicity genes back in time from lake sediments
- Investigation of the presence of toxic genes in Danube Delta Lake surface sediments as well as in the water column by molecular methods
- Resurrect *Daphnia* from resting eggs for further experiments
- Experimental investigations on the influence of Cyanobacteria on *Daphnia*

Expected results

- Identify environmental variables which influence the development of cyanobacterial blooms
- Identify some of the potential toxins occurring in the Danube Delta
- Develop a method to reconstruct the history of cyanobacterial blooms from lake sediment
- Draft several recommendations for water managers to support the control of cyanobacterial development and prevention of harmful algal blooms.

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