



CYANOCOST – ES 1105 Action

Cyanobacterial blooms and toxins in water resources:
Occurrence, impacts and management.

Short Term Scientific Mission (STSM)

Distribution and toxicity of cyanobacteria in Nordic and Mediterranean lakes and water reservoirs

Objectives

The purpose of the STSM was to analyze the distribution and compare the habitat ecology of invasive cyanobacteria in Mediterranean and Nordic lakes and water reservoirs

Methodology

During July it was taken a deep literature review on the chosen invasive and toxic cyanobacteria and their distribution to choose the appropriate species which represent toxic species from both southern and northern habitats.

The species chosen where *Cylindrospermopsis raciborskii* and *Chrysosporum ovalisporum*, typical species from Mediterranean habitats and *Dolichospermum lemmermannii*, a typical species from Nordic habitats. *Cuspidothrix issatschenkoi* and *Planktothrix agardhii* were also introduced to see the ecological patterns of toxic cyanobacteria present in both habitats.

After choosing the species, we started merging the databases between Danish and Spanish data. The merged databases represented 750 samples analysis. Then, the mapping of the results started and the analysis took place until the end of the STSM.

Results

After joining both databases it was accurately mapped the distribution of the toxic cyanobacteria chosen. Data analysis showed the different ecological patterns for each species.

One of the most interesting results is how the alkalinity was found significantly different between Spanish and Danish cyanobacterial habitats. If applicable, results from joint research work between home and host institutions will be published in an international scientific journal, as part of the PhD incumbent thesis.

Highlights

Choose the appropriate toxic species which represent both Nordic and Mediterranean habitats.

The chosen species were *Cylindrospermopsis raciborskii*, *Chrysosporum ovalisporum* from the Mediterranean habitats

Dolichospermum lemmermannii was the representative species from Nordic habitats.

Cuspidothrix issatschenkoi and *Planktothrix agardhii* were chosen as ubiquitous species

Joining the Danish and Spanish phytoplankton databases which resulted in a database 750 freshwater samples analysis

Data analysis showed the different ecological patterns for each species, specially alkalinity.

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Researcher

Miguel Medina Cobo,
PhD student.



Thesis PhD directed by Caridad de Hoyos and Antonio Quesada.

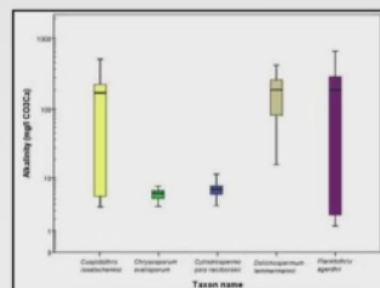
Centre for Hydrographic Studies (CEDEX). Paseo Bajo de la Virgen del Puerto, 3. 28005, Madrid, Spain.

Autonomous University of Madrid. Calle Darwin, 2, Ciudad Universitaria de Cantoblanco, 28049, Madrid.

Host Organization

Copenhagen University (KU). Freshwater Section, Aquatic Biology Department (University Park 4, DK-2100). Copenhagen, Denmark.

Dr. Kirsten S. Christoffersen, Associate Professor



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