



2015 Aquatic Sciences Meeting

Aquatic Sciences: Global And Regional Perspectives — North Meets South

22-27 February 2015 — Granada, Spain

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ABSTRACT

TOXIC CYANOBACTERIA IN THE DEEP LAKES SOUTH OF THE ALPS: A MOLECULAR ASSESSMENT ON CYANOTOXIN PRODUCING GENOTYPES

Cyanobacteria produce a wide range of toxins, including hepatotoxins (e.g., microcystins, MCs) and neurotoxins (e.g., anatoxin-a, ATX-a). They represent a serious health hazard, particularly during bloom formation. Despite the economic and natural importance of the largest lakes south of the Alps (Garda, Iseo, Como, Maggiore; $v > 122 \text{ km}^3$) and new documented bloom-forming cyanobacterial invasions (*Dolichospermum lemmermannii*), systematic studies on the molecular taxonomy and toxicological characterization of cyanobacterial strains in this lake district began only very recently. In this contribution, we will report the preliminary results of a wide survey carried out in selected southern subalpine lakes, with the aim to characterize the toxic cyanobacterial genotypes (including MCs and ATX-a producers). The analyses are based on taxonomical, genetic and metabolomic determinations carried out on environmental samples and isolated strain cultures. The results are beginning to fill in the picture about the distribution of the dominant toxigenic species in one of the most important lake districts in Europe. In perspective, these studies will be supplemented by metagenomic analyses, allowing obtaining a clearer picture of cyanobacterial diversity and potential toxin producers.

AUTHORS

Capelli, C., IASMA Research and Innovation Centre,
Fondazione E. Mach/University of Florence, Italy,
camilla.capelli@fmach.it

Shams, S., IASMA Research and Innovation Centre,
Fondazione E. Mach/University of Konstanz, Italy

Cerasino, L., IASMA Research and Innovation Centre,
Istituto Agrario di S. Michele all'Adige - Fondazione E. Mach, Italy

Cavalieri, D., IASMA Research and Innovation Centre,
Istituto Agrario di S. Michele all'Adige - Fondazione E. Mach, Italy

Salmaso, N., IASMA Research and Innovation Centre,
Istituto Agrario di S. Michele all'Adige - Fondazione E. Mach, Italy

DETAILS

Poster presentation

Session #: 034

Date: 2/24/2015

Time: 18:30 - 20:00

Location: Poster/Exhibit Hall

Presentation is given by student: Yes

PosterID: 165



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