

**Instructions PREPARING YOUR ABSTRACT:**

The abstracts should be of not more than 300 words, clearly showing the title, the name of the author(s) with the name of the presenter underlined, and the affiliation of the author(s), following the formatting of the sample abstract below. Indicate the name and address of the corresponding author. Use Helvetica font size 12 and single spacing. The abstract should clearly describe the objectives and subject of the study, and should avoid references and footnotes if not essential. Submissions should be made using Microsoft Word .doc format, please indicate your preference for an oral or a poster presentation.

Send the abstract as an attachment to: [tamar.iap@gmail.com](mailto:tamar.iap@gmail.com)

The subject of the e-mail should say 'IAP 2008 abstract'

The filename of your abstract should start with your surname

Example abstract (filename: Lehahn et al IAP08.doc)

**Eco- fingerprinting of *Borghiella dodgei* (Dinoflagellata): experimental evidence of a narrow environmental niche.**

G. Flaim<sup>1,2</sup>, E. Rott<sup>2</sup>, R. Frassanito<sup>1,3</sup> +?????

<sup>1</sup>Department of Natural Resources, FEM, Italy. [giovanna.flaim@iasma.it](mailto:giovanna.flaim@iasma.it)

<sup>2</sup> Botanical Institute, University of Innsbruck, Austria,

<sup>3</sup> Department of Physics, University of Trento, Italy.

The dinoflagellate *Borghiella dodgei* Moestrup, Hansen et Daugbjerg, was cultivated in the laboratory under different temperature, nutrients, and light conditions. Growth rates, cell biovolume, cyst formation, pigment content, and MAAs were determined. Experiments showed that this algae grew well at low temperatures, and grew slowly without organic supplements. While it was not able to grow in the dark, *Borghiella* survived for long periods without a light source.

In particular, *Borghiella* grew well at temperatures of <6 °C. Cell yields increased ten fold with organic supplements and increasing irradiance levels had a positive effect on growth.

Cell volume was not affected by light conditions but increased with an increase in temperature or a lack of nutrients. The formation of thick-walled resting cysts was enhanced by an increase in temperature while light conditions did not effect encystment. Chlorophyll a content per cell was inversely related to irradiance levels. Cultures with a high number of resting cysts were characterized by a red-brick colour and altered peridinin/chlorophyll contents. Even after several years of culturing, *Borghiella* was still capable of MAA synthesis.

The temporal spatial occurrence of this species in Lake Tovel was confronted with results from *in vitro* experiments. *Borghiella*'s growth requirements make it well suited to the unique habitat of Lake Tovel.

Oral presentation