

6 Summary

During the last decades the filamentous green alga, *Mougeotia* spp. has been having important contributions to the phytoplankton of some large peri-alpine lakes (Lake Geneva, Lake Garda, Lake Maggiore) and also in subtropical Lake Kinneret (Israel). The occurrence of algal blooms usually related to the main bottom-up factors that affect the phytoplankton. These are the temperature, light intensity, mixing properties in the lake and nutrients.

Aim of my study was to define how these factors affect the seasonal and interannual distribution of *Mougeotia* sp. in the studied lakes.

By analysing the dataset from each lake morphological examinations were carry out on *Mougeotia* sp. from Lake Geneva and compared it with data from the other lakes. Then the seasonal and interannual pattern of both the species's abundance and the environmental parameters were defined. In a third step the ecological preferences for the environmental parameters was defined and finally the environmental parameters between years with different *Mougeotia* sp. biomass were compared by using multivariate statistical analysis (discriminant analysis).

According to my results and former studies, the more and more frequent bloom related to the phosphorus reduction that have been occurred in these lakes. Using the main environmental factors I could separate years in each lake with *Mougeotia* sp. blooms from years without any blooms. The importance of these factors differed in the lakes but the more the geographical similarities between lakes the more similarities were observed in the importance of environmental factors.

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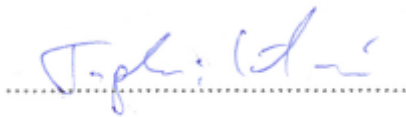
Tételes szerzői hozzájárulás

Alulírott Tapolczai Kálmán a leírt munkafolyamatok közül a(z):

- fitoplankton és környezeti háttérváltozók adatait tartalmazó adatbázis létrehozását és kezelését,
- mikroszkópos morfológiai vizsgálatot,
- statisztikai elemzést

végeztem el.

Thonon-les-bains, 2014. 05. 25.


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