

Abstract

Raphidiopsis raciborskii is a globally widespread bloom producing cyanobacteria that has been observed more frequently in temperate freshwater locations in previous twenty years, which is a considerable expansion regarding its original occurrence in tropical regions. The ability to produce health-threatening toxins, cylindrospermopsin (CYN) and saxitoxin, places this species to the centre of scientific research. The goal of this bachelor's thesis is to sum up the current knowledge on *Raphidiopsis raciborskii*, concerning mainly its ecology and phytogeography, and also to provide information about cyanotoxin cylindrospermopsin, which can be produced by *R. raciborskii* and also by other cyanobacteria species. Regarding cylindrospermopsin, I mainly focused on the chemical structure of the molecule, its biosynthesis, toxicity, methods of CYN detection and removal from drinking water.