

## Comparison of phytoplankton diversity and succession between two small man-made lakes in Serdang, Selangor

### ABSTRACT

Information on the relations between phytoplankton communities and the environment is limited for the man-made lakes in Malaysia. This paper presents the results of a study on the diversity and seasonal succession of phytoplankton in Seri Serdang Lake and Faculty of Engineering Lake conducted between November 2013 and February 2014. A total of 27 species from four phyla (Chlorophyta, Euglenophyta, Cyanobacteria, Bacillariophyta) and 33 species belonging to Cyanobacteria, Chlorophyta, Bacillariophyta, Euglenophyta and Dinophyta were identified from Seri Serdang Lake and the Faculty of Engineering Lake, respectively. Chlorophyta were most dominant in both lakes. Highest number of species recorded was *Monoraphidium* sp. in Seri Serdang Lake and *Pediastrum tetras* in Faculty of Engineering Lake. Seri Serdang Lake had lower phytoplankton density (20 cells ml<sup>-1</sup> to 396 cells ml<sup>-1</sup>) as compared to the Faculty of Engineering Lake (250 cells ml<sup>-1</sup> to 300 cells ml<sup>-1</sup>). Although the distance between the two lakes is short, they do not share the same tributary probably leading to the observed differences in water quality, species diversity and succession pattern.

**Keyword:** Chlorophyta; Diversity; Man-made lake; *Monoraphidium*; Phytoplankton; *Pediastrum tetras*; Tropical climate