

## **Cyanobacterial abundance and diversity in the North-Western Algeria: case of Hammam Boughrara dam.**

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The cyanobacteria or blue green algae are a morphologically distinct group of oxygenic, photosynthetic organisms that inhabit terrestrial and aquatic ecosystem. The term diversity is used here to describe the number, variety and variability of living organisms in the ecosystem. This study was carried out at H. Boughrara dam located in the northwestern of Algeria, from January 2016 to December 2016, at 3 stations, between 8.00 and 13.00 GMT + 1. All samples were preserved in bottles plastic containing 4% neutralized formaldehyde solution (final concentration), before being transported to the laboratory immediately for the identification. A small quantity of the concentrated samples were analyzed for the dominant cyanobacterial group. The cells were counted on a ZEISS-WINKEL inverted microscope. During this study, 16 species of cyanobacteria were collected *Oscillatoria limnetica*, *Oscillatoria agardhii*, *Oscillatoria sp*, *Merismopedia glauca*, *Merismopedia elegans*, *Anabaena circinalis*, *Anabaena variabilis*, *Anabaena planctonica*, *Pseudoanabaena sp*, *Aphanizomenon flos-aquae*, *Aphanizomenon sp*, *Chroococcus turgidus*, *Chroococcus minutus*, *Chroococcus sp*, *Microcystis aeruginosa* and *Microcystis sp*. The species *Oscillatoria limnetica* is the most dominant by 37%, followed by *Oscillatoria agardhii* with 23%, *Microcystis sp* by 15%, while the rest of the species were recorded with low percentages. The abundance of these species is due to the fact that these species proliferate in the eutrophic environments which is the case of Hammam Boughrara dam.

**Keywords:** Abundance, Diversity, Cyanobacteria, Hammam Boughrara dam, Algeria.