

Central Davis Sewer District Algal ID and Enumeration Report

Prepared: September 21, 2023

Prepared By: GreenWater Laboratories

Samples: 2 (Collected on 6/21/23)

1. FB1
2. FB4

Sample 1: FB1

Total cell numbers in the FB1 sample collected on 6/21/23 were 11,393 cells/mL. Green algae (Chlorophyta; 6,081 cells/mL) was the most abundant algal group in the sample accounting for 53.4% of total cell numbers. Other algal groups in the sample were diatoms (Bacillariophyta; 3,003 cells/mL), cryptophytes (Cryptophyta; 42 cells/mL), blue-green algae (Cyanobacteria; 1,480 cells/mL), euglenoids (Euglenozoa; 2 cells/mL) and unknown algae (Unknown; 785 cells/mL). The most abundant algae in the sample were small, spherical chlorophyte unicells (2,670 cells/mL; Fig. 1). A total of 41 species were observed in the sample with green algae and diatoms the most diverse groups with 17 and 15 taxa respectively.

Total cell numbers of potentially toxigenic cyanobacteria (PTOX Cyano) were 517 cells/mL (4.5% of total cell numbers). PTOX Cyano species observed in the sample included *Pseudanabaena* sp. (471 cells/mL; Fig. 2), *Pseudanabaena* sp. (28 cells/mL; Fig. 3) and *Anabaena* sp. (18 cells/mL; Fig. 4).

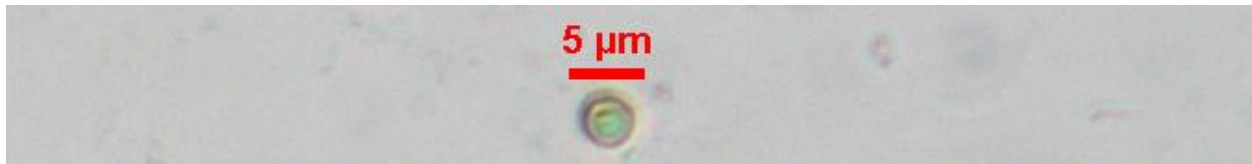


Fig. 1 chlorophyte unicell 400X (scale bar = 5μm)



Fig. 2 *Pseudanabaena* sp. 400X (scale bar = 5μm)



Fig. 3 *Pseudanabaena* sp. 400X (scale bar = 5μm)

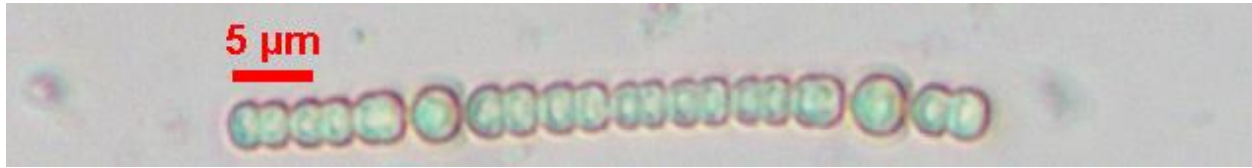


Fig. 4 *Anabaena* sp. 400X (scale bar = 5 μ m)

Sample 2: FB4

Total cell numbers in the FB4 sample collected on 6/21/23 were 33,881 cells/mL. Green algae (Chlorophyta; 30,929 cells/mL) was the most abundant algal group in the sample accounting for 91.3% of total cell numbers. Other algal groups in the sample were diatoms (Bacillariophyta; 401 cells/mL), cryptophytes (Cryptophyta; 314 cells/mL), blue-green algae (Cyanobacteria; 1,882 cells/mL), euglenoids (Euglenozoa; 42 cells/mL) and unknown algae (Unknown; 314 cells/mL). The most abundant alga in the sample was the chlorophyte *Pseudopediastrum boryanum* (7,353 cells/mL; Fig. 5). A total of 38 species were observed in the sample with green algae the most diverse group with 26 taxa observed.

Total cell numbers of potentially toxigenic cyanobacteria (PTOX Cyano) were 251 cells/mL (0.8% of total cell numbers). PTOX Cyano species observed in the sample included *Pseudanabaena* sp. (251 cells/mL; Fig. 6).

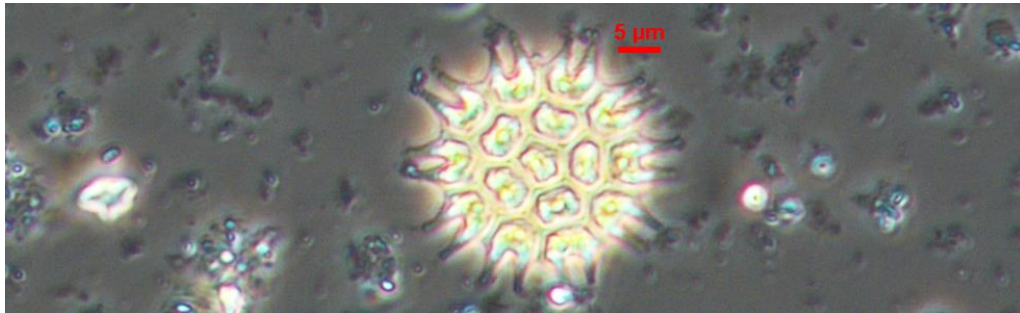


Fig. 5 *Pseudopediastrum boryanum* 400X (scale bar = 5 μ m)



Fig. 6 *Pseudanabaena* sp. 400X (scale bar = 5 μ m)

Submitted by:

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Date:

9/21/2023

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