**Text SX:** *Microscope identification of phytoplankton during 2019 bloom event*

Weekly phytoplankton samples taken at various depths in the surface waters of Falling Creek Reservoir (0.3 – 5 m) from 15 July to 05 August 2019 indicated that the phytoplankton community in the epilimnion was dominated by cyanobacterial and green algae taxa. *Dolichospermum* and *Pseudanabaena* were the dominant cyanobacterial taxa; the dominant green alga was a non-flagellated, unicellular nanoplankter with a maximum linear dimension averaging 5 μm. *Dolichospermum* was the dominant genus from 15 July to 29 July, comprising between 41% and 73% of total phytoplankton biovolume during this time period. *Pseudanabaena* was dominant on 05 August in a sample collected at 5 m, comprising 77% of total phytoplankton biovolume.

Samples were collected using a 4-L van Dorn depth sampler (Wildco, Yulee, FL, USA) and immediately preserved in 250 mL amber high-density polyethylene bottles by adding ~1% Lugol’s iodine by volume to each sample. Before counting, three sub-samples of 20 mL from each sample were filtered and fixed onto permanent slides using 2-hydroxypropyl methacrylate (HPMA) following Crumpton 1987. Samples were subsequently enumerated on a Nikon Eclipse Ci microscope (Nikon, Minato City, Tokyo, Japan) at 400 until at least 300 natural units (either single cells or colonies) had been counted, with counting effort evenly divided amongst the three sub-samples. Phytoplankton were identified to genus when possible and the first ten natural units of each genus were measured and used to calculate biovolume via approximation to known geometric shapes following Hillebrand et al. 1999. All counts were conducted by M.E.L.

**References**

Crumpton, W. G. 1987. A simple and reliable method for making permanent mounts of phytoplankton for light and fluorescence microscopy. Limnology and Oceanography 32:1154–1159.

Hillebrand, H., C.-D. Dürselen, D. Kirschtel, U. Pollingher, and T. Zohary. 1999. Biovolume calculation for pelagic and benthic microalgae. Journal of Phycology 35:403–424.