

# FlowCam® Cyano

## Automated Detection of Cyanobacteria

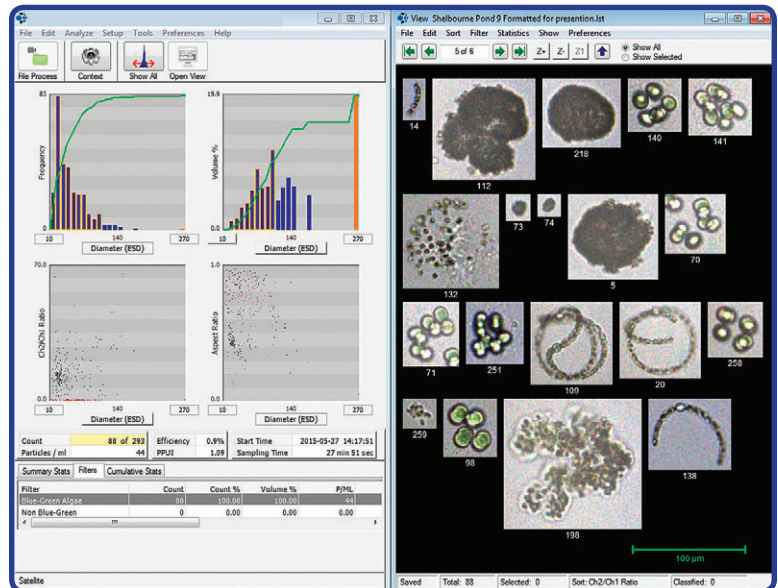


### Automatically Differentiate Cyanobacteria from Green Algae

Based on proven FlowCam® technology, the new FlowCam Cyano automatically identifies cyanobacteria from other algae and particles in aquatic samples. Using a patent-pending combination of excitation wavelength, phycocyanin fluorescence measurement and image recognition software, the system automates what used to be done manually using microscopy.

After differentiating the cyanobacteria from the other algae in the sample, VisualSpreadsheet and Advanced Classifier software can be used to further characterize the specific types of all algae found in the sample. The key features of the system are:

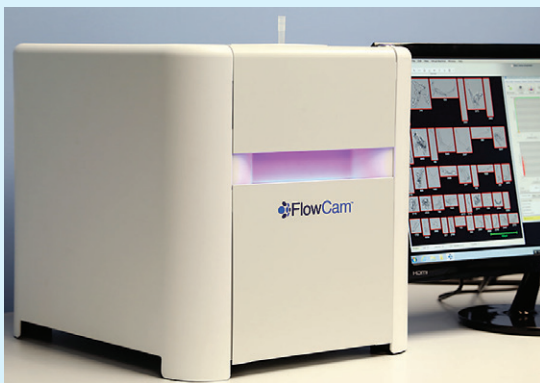
- High-sensitivity fluorescence detection (2 channels, phycocyanin and chlorophyll)
- Ratiometric fluorescence accurately discriminates cyanobacteria from other algae
- Further classification using over 30 image parameters collected for each cell
- Integral bio-volume calculations
- Faster & easier than manual microscopy



### Typical FlowCam® Cyano Applications

- Detection & Verification of Cyanobacteria Presence
- Biovolume Calculation
- Cell Density Calculation
- Proactive Treatment Operations

### FlowCam Cyano System



### FlowCam Cyano Specifications:

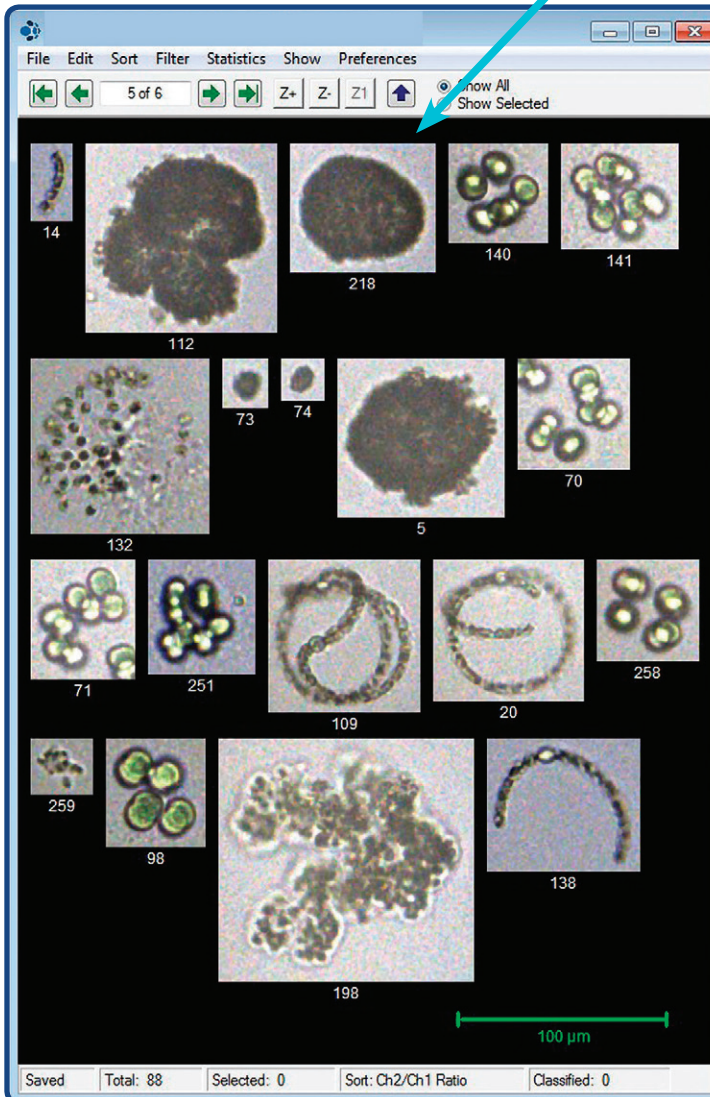
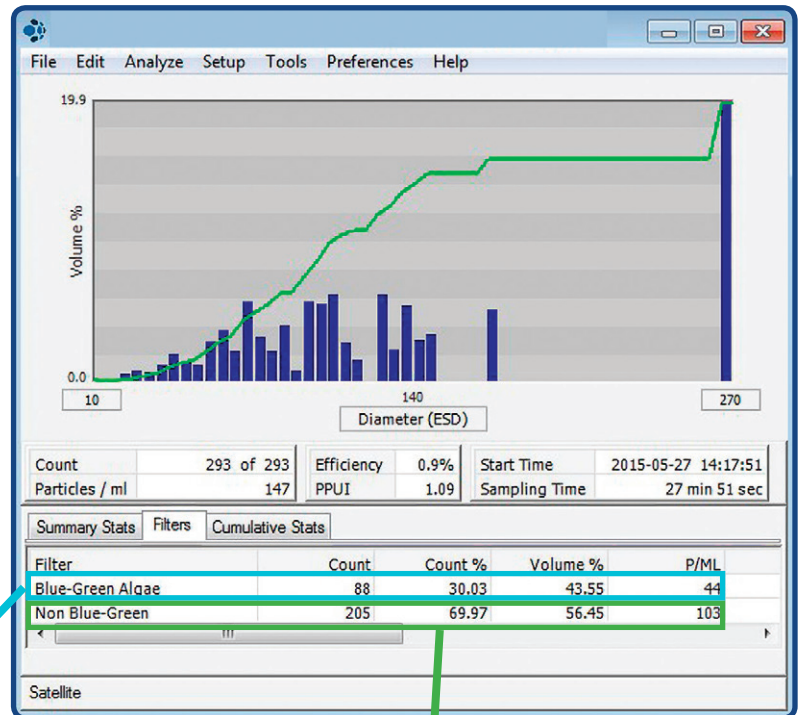
- 2 fluorescence channels
- Ratiometric fluorescence discrimination (patent pending)
- Automated high-precision syringe pump
- Integrated flush and rinse system
- Ejectable pipette tip sample introduction port
- VisualSpreadsheet software
- Optional Advanced Classifier software

## FlowCam Cyano Example:

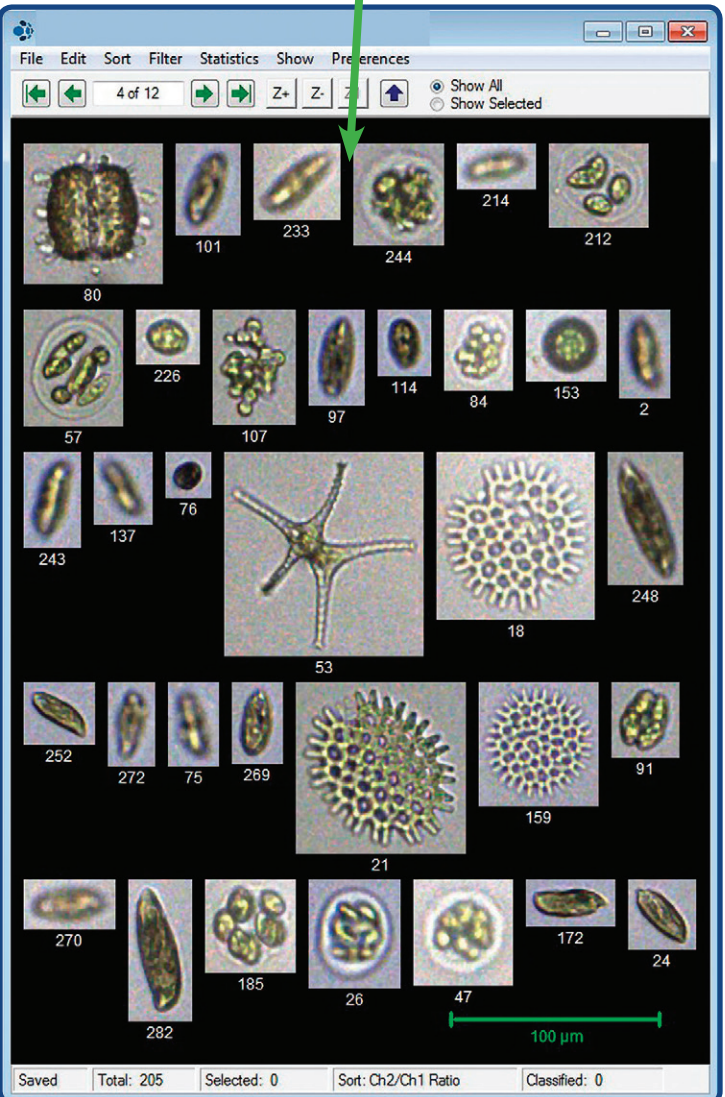
A sample containing cyanobacteria and other algae was collected from a lake and evaluated using FlowCam Cyano. By filtering on the ratio of the two fluorescence signals collected for each particle, one can quickly distinguish the cyanobacteria from the other algae as shown at right and below. Once these filters are built, they can be used on successive runs, and will automatically "bin" the data into the two different categories during image acquisition.

Finally, VisualSpreadsheet Advanced Classifier can be used on the resultant cyanobacteria found to separate them further by species.

*Contact Fluid Imaging today for more information or to arrange a demonstration!*  
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Results of Cyanobacteria Filter



Results of Other (Non-Cyanobacteria) Algae Filter