POSTER PRESENTATION

MORPHOLOGICAL VARIATION OF *CYCLOTELLA (PANTOCSEKIELLA) COMENSIS* IN THE LAURENTIAN GREAT LAKES

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An important indicator of climate change and low nutrients in surface waters, *Cyclotella comensis* Grunow in Van Heurck is ubiquitous in the Laurentian Great Lakes. *C. comensis* forms a diverse complex with high morphological plasticity. In a large dataset including fossil and modern collections from the Great Lakes we have distinguished two distinct morphotypes of *C. comensis*: *Cyclotella comensis* var. 1 and *Cyclotella comensis* var. "rough center with process" (RCWP). To further examine differences in morphologies, specimens were analyzed with light microscopy and scanning electron microscopy. All have radial, uniform, and aveolate striae, a central fultoportula, a rimoportula opposite of the central fultoportula, and marginal fultoportulae. *C. comensis* var. 1 is in the smaller size range of *C. comensis* (4-7 µm vs. 4-13 µm) and has a pore field on one side of its tangentially undulated center. *C. comensis* var. RCWP (also reported as *Cyclotella* cf. *delicatula*) has a distinct central fultoportula and colliculate center and lacks the pore field and tangential undulation of *C. comensis* and *C. comensis* var. 1. Its diameter is generally 5-17 µm, larger than *C. comensis*. Samples also contained transitional specimens possessing traits from multiple morphotypes; therefore, it is likely there is some integration between the morphotypes and little genetic variation. However, because of morphological variation and apparent differences in ecological preference, distinction may be important within the species.