POSTER PRESENTATION

MORPHOLOGICAL DIVERSITY OF EUNOTIA AND GOMPHONEMA TAXA FROM UPPER THREE RUNS CREEK IN SOUTHEASTERN UNITED STATES

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Diatom diversity in the southeastern United States remains largely unknown. To better understand diatom assemblages and communities, Ruth Patrick and The Academy of Natural Sciences of Philadelphia conducted diatometer surveys along the Savannah River from the early 1950s to 2000s. Anthropogenic alterations of the hydrology of the Savannah River started as early as the 1940s by the Army Corps of Engineers and continue today. Therefore, these studies may not capture the extent of the diatom biodiversity that would be found in southeastern habitats under less hydrologic alterations. Upper Three Runs Creek, which is a tributary of the Savannah River, is known as a southeastern biodiversity hotspot. Because this site is designated by the Savannah River Site to receive as minimal anthropogenic impacts as possible, it also serves as a control site in many scientific studies. In 2010, a study was conducted by Georgia College to investigate the dominant taxa found at Upper Three Runs Creek. This study found dominant taxa such as: *Gomphonema parvulum* (Kützing) Kützing *sensu lato*, *Gomphonema parvulum* (Kützing) Kützing *sensu stricto*, *Eunotia carolina* Patrick, *Luticola goeppertiana* (Bleisch) D.G. Mann, *Achnanthidium minutissimum* (Kützing) Czarnecki, and *Tabellaria flocculosa* (Roth) Kützing. High morphological diversity specifically among genera Eunotia and Gomphonema was also found. Using archives from this 2010 study, we began the process of investigating and describing the morphological differences among Eunotia and Gomphonema taxa found at Upper Three Runs Creek.