

POSTER PRESENTATION

NEW EUNOTIA EHRENBERG TAXA FROM THE GREAT SMOKY MOUNTAINS NATIONAL PARK

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The acidophilic diatom genus *Eunotia* is understudied and documentation of the morphological forms of *Eunotia* specific to North America are limited. The Great Smoky Mountains National Park (GSMNP), USA, has a range of acidic, aquatic habitats amongst a complex geology at a variety of altitudes, making it an ideal location to explore the biodiversity of this taxonomically challenging genus. We inventoried the *Eunotia* taxa from samples collected from the lake, streams, wet walls, ponds, and bogs found throughout the GSMNP. We identified over 50 sub-generic taxa of *Eunotia*, including several species new to science. We present a taxonomic description and image rich documentation, including both scanning and electron micrographs, of 13 proposed new species (*E. areniverma*, *E. boomsma*, *E. canicula*, *E. cataractarum*, *E. enischna*, *E. horstii*, *E. kociolekiana*, *E. mydohaimasiae*, *E. obliquestirata*, *E. orthohedra*, *E. papilioforma*, *E. richbuttensis*, *E. rushforthiana*). This timely study contributes to our understanding of the North American, *Eunotia* flora, and will facilitate taxonomic comparisons with past and recent *Eunotia* flora descriptions from Europe and elsewhere.