POSTER PRESENTATION

STALKED *RHOPALODIA* FROM LAKE TANGANYIKA

Paula C. Furey[1], Robin L. Richardson-Coy[2], Renalda. Munubi[3], Yvonne Vadeboncoeur[2], and Rex L. Lowe[4]

[1] *Department of Biology, St. Catherine University, St. Paul, Minnesota 55105, USA*
[2] *Department of Biological Sciences, Wright State University, Dayton, Ohio, 45435, USA*
[3] *Sokoine University of Agriculture, Morogoro, Tanzania*
[4] *Department of Biology, Bowling Green State University, Bowling Green, Ohio, 43403, USA*

Among freshwater lakes, Lake Tanganyika in the African Rift Valley is surpassed only by Lake Baikal in depth and total volume. Benthic primary productivity rates in the > 50m deep photic zone are extremely high despite the very low biomass of attached algae. The most abundant diatom taxa in the epilithic assemblages belong to Eurhopalodiae group within the genus *Rhopalodia* Müll., such as
R. hirudiniformis Müll. and *R. gracilis* Müll. Müller (1905) noted that *R. hirudiniformis* and *R. vermicularis* Müll. formed stalks similar to those of *Gomphonema* Ehrenb. when he described the species. Although literature sources occasionally mention stalks, sources lack accompanying structural and ecological details. From epilithic samples collected from 12 rocky sites from the northeast shore of Lake Tanganyika around Kigoma, Tanzania, we use LM and SEM examination to document external and internal morphological and ultrastructural features of *Rhoplalodia*, especially with respect to the apex associated with the stalk. We describe stalk morphology, attachment point, branching, and observations on epiphytes. SEM images showed no structures associated with stalk production. The presence of stalks in the Eurhopalodiae group of the *Rhopalodia*, in contrast with the lack of stalk production in the Epithemioideae group, suggest the need for further phylogenetic and molecular work between the two groups.