THE ECOLOGICAL ROLE OF CORBICULA FLUMINEA IN A SHALLOW RESERVOIR SYSTEM: LAKE SEMINOLE, GA, U.S.A.

Chase H. Patrick[1], Matthew Waters[1], and Stephen W. Golladay[2]

AUTHORS: [1]Valdosta State University – Biology, 1500 N. Patterson Street , Valdosta, Georgia 31602; [2]Joseph W. Jones Ecological Research Center, Newton, Georgia
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Abstract. The persistent growth of the invasive species, Hydrilla verticillata, in Lake Seminole, Georgia has contributed to the decrease of native submerged aquatic vegetation, restricted recreational use, and affected water quality making management of the shallow reservoir problematic. Recent benthic sampling showed another invasive clam, Corbicula fluminea, existing throughout the lake and its two tributaries, the Chattahoochee River and Flint River. While previous research noted Corbicula fluminea living in the lake since 1963, little is known about the clam's distribution and impact on lake ecology. Here, we collected ponar dredges of surface sediments throughout the lake with the objective of determining Corbicula's distribution and ecological role. Results show Corbicula existing throughout the lake but density being related to certain limnological factors (water depth, habitat, sediment organic matter). In addition, Corbicula biomass was compared to adjacent surface sediments and showed that the clam could be a new ecological vector for transferring metals and nutrients to other parts of the ecosystem.