

James Wood, Department of Natural Sciences and Mathematics, West Liberty University, West Liberty, WV. 26074. A vanishing forest at the bottom of the river: the ecology of *Podostemum ceratophyllum*.

Podostemum ceratophyllum Michx., an algae-like flowering plant commonly called hornleaf riverweed, is native to the Appalachian and Piedmont regions of North America. *Podostemum* grows underwater attached to rocks and stable substrates in fast flowing rivers and stream. The plant increases structural complexity in benthic habitats and is associated with increases in macroinvertebrate biomass and fish abundance. Functionally *Podostemum* sequesters nutrients and metals from the water column and allows them to be transferred into the food web. *Podostemum* can grow and spread relatively quickly, occupying large portions of the benthic surface in suitable locations. The plant can also achieve a substantial biomass, over 1000 mg m², but herbivory on the plant can also be intense when consumers gain access to the plant. While *Podostemum* is an important component of many eastern rivers, records on where *Podostemum* occurs are incomplete and anecdotal evidence indicates the plant has been declining across its range. Currently, seven states (CT, KY, ME, NY, OH, PA, RI) list *Podostemum* as threatened, endangered, historical, or a species of special concern, but surprisingly little is known about plant's habitat requirements or how changes in water chemistry affect *Podostemum* growth and survival. Here we discuss the current understanding of the ecology of *Podostemum*, interactions between the plant and other organisms, and how changes in water chemistry and water velocity can influence the growth and survival of this aquatic macrophyte.