

ASHLEY VANKIRK and JAMES WOOD, Dept of Organismal Biology, Ecology, and Zoo Science, West Liberty University, West Liberty, WV, 26074. Does Water Velocity and Seasonality alter Herbivory Pressure on *Podostemum ceratophyllum* Michx.?

Podostemum ceratophyllum (Hornleaf Riverweed) is an aquatic macrophyte distributed along the Eastern United States with disjunctions in the Dominican Republic and Honduras. The plant primarily grows in fast-flowing, shallow streams and creates habitats for benthic macroinvertebrate communities. Previous studies in the Georgia Piedmont suggested that water velocity alters herbivory pressure, such that low water velocity increases herbivory resulting in a decrease in stem length and the overall biomass of *Podostemum*. The presumed consumers include crayfish, waterfowl, and turtles. We investigated the relationship between water velocity and herbivory in Middle Island Creek, Sistersville, WV, in the fall of 2021 by exposing the plant to herbivores in a low water velocity habitat for two weeks. We hypothesized that herbivory pressure would increase when *Podostemum* is relocated to low water velocity and exposed to consumers, decreasing stem length rapidly. However, our data found no significant difference in stem length between the consumer-exclosure and consumer-accessible treatment in the low-velocity habitat ($t(8) = 0.23782$ $p > 0.01$). These results suggest possible seasonal patterns in herbivory, as turtles and other herbivores may not be actively consuming *Podostemum* during cooler temperatures due to hibernation. This study provides new insight into seasonal patterns in herbivory pressure not previously observed. Further research will be conducted in the spring, summer, and fall seasons of 2022 in 3 to 4 streams in West Virginia and Pennsylvania.