There is very little known about the ecology of the aquatic plant *Podostemum ceratophyllum* (Hornleaf Riverweed) but the few studies that have investigated the ecology of the plant indicate that it is an important component of eastern rivers, increasing resources available to benthic fauna, and influence nutrient cycling. Reductions in *Podostemum* biomass has been found to substantially decrease macroinvertebrate biomass, which may trigger trophic cascades that negatively impact fishes and other large bodied consumers. Anecdotal evidence indicates that there has been an overall decline in the plant’s population but the causes of decline remains unclear. Collection records of *Podostemum* date back to the mid 1800’s but few populations have been documented since the 1950’s. This project will resurvey populations of *Podostemum ceratophyllum* to ascertain the current extent of the plant in West Virginia. Surveys will be accompanied with the collection of water chemistry data to better document the environmental parameters of the plant and help understand the reasons for decline. Better documentation of *Podostemum* population locations and associated water quality parameters is important for the management and restoration of West Virginia’s rivers and streams. Grant provided by NASA West Virginia Space Grant Consortium, Undergraduate Research Fellowship Program.