TAYLOR ROSS WHITSON, Department of Biological Sciences, West Liberty University, P.O. Box 295, West Liberty, West Virginia, 26074. The Presence and Impacts of Pollutants on Central Appalachian Crayfishes

Cambarus veteranus and *Cambarus callainus* are federally endangered and threatened crayfish, that live in the coalfields region of central Appalachia. The dominant industry and land use in this region is coal mining. Currently, the most common form of coal mining in this region is surface mining, also known as mountaintop removal mining. There is a lack of data on the specific impacts of pollutants from mining on crayfish and their congeners. Chemical pollutants along with increased sedimentation from industrial sources are known to cause adverse effects in crustaceans and can even be lethal. It is crucial to better understand how these pollutants are affecting crayfishes inhabiting coalfield streams. This study will assess the bioaccumulation of the metals arsenic (As), cadmium (Cd), chromium (Cr), lead (Pb), and selenium (Se) in non-imperiled cambarid crayfish that are being used as surrogate species for *C. veteranus* and *C. callainus* by analyzing the hepatopancreas and gill tissues. Physical maladies, such as deformed dactyl and gill melanization, will also be quantified. This data, as well as species abundance at each site, will be analyzed to better understand the effects of mining on crayfish.