

JIMMY KROCHMAL, ERIC TIDMORE, AND ZACHARY LOUGHMAN, Dept of Natural Sciences and Mathematics, West Liberty University, West Liberty, WV, 26074. Descriptive analysis of long-term monitoring sites for *Cambarus callainus* and *Cambarus veteranus*.

*Cambarus callainus* and *Cambarus veteranus* are two federally listed crayfish species endemic to the coalfields region of Kentucky, Virginia, and West Virginia. These crayfishes are impacted by anthropogenic changes in their environment, namely such as sedimentation, which eliminates the interstitial spaces these species use as shelter. An investigation was initiated to examine environmental factors of streams with populations of *C. callainus* and *C. veteranus* in southern West Virginia, eastern Kentucky, and northern Virginia. Environmental data were collected at long term monitoring sites for *C. callainus* and *C. veteranus* within the Big Sandy and Guyandotte River basins, with 56 site localities chosen based on a quantitative assessment of their habitat. 100 m transects were divided into 10 m subsections that were seined for 10 minutes or until all available microhabitats were sampled. Subsections were analyzed for habitat density, substrate coarseness, embeddedness, and heterogeneity. Data collected from this project can be used for comparing historic localities lacking these species to assess viability for reintroductions.