

NICOLE M. SADECKY and Zachary J. Loughman, Dept of Natural Sciences and Mathematics, West Liberty University, West Liberty, WV 26064. Identifying Habitat Utilization and Movement of a Federally Endangered Narrow Endemic Crayfish Species, *Cambarus veteranus* (Guyandotte River crayfish) via Radio Telemetry.

The movement and habitat selection of the federally endangered crayfish *Cambarus veteranus* (Guyandotte River Crayfish) was investigated via radio telemetry. The project was initiated to determine the feasibility and success of tracking a federally endangered Appalachian crayfish. Tracking occurred in the Clear Fork drainage of the Guyandotte River, Wyoming County, West Virginia, during the summer of 2018. Transmitters weighing 1.2 g were affixed to the ventral side of the right chela of five *C. veteranus* individuals and were released at their point of capture. Individuals were tracked three times daily for three consecutive days followed by a 6 day non-interaction period. Following the non-interaction period, animals were then tracked once daily every 2 – 3 days for approximately 4 weeks. When an individual was located, the total distance traveled and the micro/macrohabitat type was noted. Water depth, water temperature, current velocity, and distance to the nearest bank were also measured at each individual's position. Our preliminary results provided interesting insight about the ecology and movement of *C. veteranus* and showed far greater movement for *C. veteranus* than expected, with a single crayfish moving over 480 m. Differences in movement behavior was observed between tracked males and females with males moving more frequently and traveling further than females. Although nighttime tracking was not completed, it was assumed that the majority of movement occurred during the night. Of the five crayfish tracked, four were retrieved at the completion of the study. No crayfish appeared to be harmed or impeded by the transmitters.