ZACHARY J. LOUGHMAN, NICOLE SADECKY, DAVID FOLTZ, CYNTHIA CYPRYCH, and CLARISSA DAMIS, Department of Natural Sciences and Mathematics, West Liberty University, West Liberty, WV, 26074, Civil & Environmental Consultants, Inc., Pittsburgh, PA 15205. Crayfish diversity and distribution of tomlinson run state park, hancock county, West Virginia.

In 2015, a survey of epigean crayfish of Tomlinson Run State Park was conducted. The park is located in Hancock County in West Virginia's northern panhandle. A preliminary habitat survey was conducted to map all reaches of intermittent and perennial streams as well as other crayfish habitats. Following the survey for habitat, 30 stations, each 100m long, were randomly selected using ArcGIS for both intermittent and perennial streams. Sites were sampled by performing ten seine hauls in best available habitat throughout the reach and scored using an Ohio EPA QHEI form to obtain qualitative habitat data. In order to minimize impacts within the park, all crayfish were identified to species upon capture and released following sampling at each station. In total, 471 crayfish were collected during the survey out of which four species were identified: Cambarus carinirostris, Cambarus monogalensis, Cambarus robustus, and Orconectes obscurus. No statistically significant relations between QHEI score vs. CPUE (catch per unit effort) were shown, but O. obscurus demonstrated a slightly positive correlation with increased score while C. carinirostris demonstrated a slightly negative correlation to increased score. Cambarus monogalensis was collected from three large forested seeps. Only C. carinirostris were collected from intermittent stations with overall CPUE of 0.12 crayfish per haul. CPUE scores for perennial stations indicated 1.43 crayfish per haul, but when split by species, C. carinirostris had lower CPUE (0.39) compared to O. obscurus (0.95). C. robustus had the lowest CPUE (0.09) and was the rarest species encountered in Tomlinson Run State Park.