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*Cambarus veteranus* Faxon, 1914 (Guyandotte River Crayfish), is an endangered, narrow endemic, residing in just two streams in the southern coalfields of West Virginia. A life history study was initiated for *C. veteranus* in Clear Fork of the Guyandotte River, Wyoming County, West Virginia to gather basic life history information needed for future conservation efforts. Monthly collections began June 2017 and will continue through June 2018. Two 400-meter stream reaches were designated as life history study sites with two different 100-meter sub-reaches sampled each month. Specimens, regardless of species, were collected, sexed, and molt stage determined. Preliminary results suggest an importance of water temperature on crayfish capture with December yielding considerably higher capture rates of *C. veteranus* relative to other species collected. Form I males are ever present and reach their highest density in early winter. Pre-glaired females reached their highest densities in October and December with glaired females present nearly every month. Thus far, a single ovigerous female has been found, bearing just two stage 4 juveniles. A molting event occurred between September and October with pre-molting individuals present in September and freshly molted individuals present in October. Providing life history information for *C. veteranus* will assist in conservation efforts and possible repatriation of *C. veteranus* in the future. Additionally, life history information for *C. veteranus* can be compared to closely related species that are often used as surrogates for *C. veteranus* in captive rearing studies.