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The Blue Crawfish (*Cambarus monongalensis*) is a primary burrowing crayfish species native to Pennsylvania, West Virginia, and Ohio. Due to the species' fossorial nature, there is very limited information regarding the life history of *C. monongalensis*, as well as a general lack of research on burrowing crayfish. A multiyear survey of the largest recorded colony of *C. monongalensis* in Pennsylvania examined the impact that sex and seasonal changes had on movement, behavior, and burrowing activity. Across all seasons of sampling, the majority of crayfish collected were Form I males, most likely searching for mating opportunities. Of observed and sampled females, very few were in a reproductive state, and only one individual was found to be ovigerous (egg-carrying). Overall, 703 total individuals were sampled, with 411 males, 289 females, and 3 unable to be sexed. This research suggests that *C. monongalensis* may have a seasonality within their life history that resembles that of other primary burrowing species. Understanding the seasonality and impacts of sex on the life history of this elusive crayfish is necessary to fully grasp their complex natural history and assist with conservation attempts.