<u>Crayfishes of the Potomac River Basin in West Virginia</u> Authors: Audrey Sykes, Dr. Zachary Loughman, and Matthew McKinney

The high level of endemism displayed by native crayfish taxa, in addition to the recognized displacement abilities of nonindigenous crayfish such as Faxonius virilis and Procambarus acutus represents a serious threat to indigenous crayfish populations. Other major conservation threats to native crayfish fauna in the eastern portion of West Virginia include land development and landuse practices. The goal of this study was to compare recent and historical species distributions and assess conservation standings of native and nonindigenous crayfishes of the Potomac River Basin in West Virginia. Between June and October of 2007 historical and semi-randomly selected sites were sampled throughout the basin. Abundance was determined by catch per unit effort (CPUE) for ten seine hauls. Morphometric data including total carapace length, propodus length, and palm length were recorded in millimeters for each species. Life history parameters were determined from collections made during the study. Native species collected included Cambarus bartonii, Cambarus carinirostris, and Faxonius obscurus. Introduced species collected included Faxonius virilis and Procambarus zonangulus. C. bartoni was present in the Cacapon, North Branch Potomac, Potomac Direct Drains, and South Branch Potomac. F. obscurus was absent from Potomac Direct Drains, and C. carinirostris was only present in the South Branch Potomac. F. virilis and P. zonangulus were only present in Potomac Direct Drains. Though F. limosus was reported in 1989, no specimens were recovered during over the course of this survey, which indicates possible extirpation from the West Virginia portion of its range.