TANYA KHAN, Dept of Natural Sciences and Mathematics, West Liberty University, West Liberty, WV 26074, DAVID LIEB, Western Pennsylvania Conservancy, Pittsburgh, PA 15222, MATTHEW MCKINNEY, Dept of Natural Sciences and Mathematics, West Liberty University, West Liberty, WV 26074, and ZACHARY LOUGHMAN, Dept of Natural Sciences and Mathematics, West Liberty University, West Liberty, WV 26074. Reassessment of the Crayfishes of the Upper Ohio River Basin in Pennsylvania.

Crayfishes are keystone species and ecosystem engineers in freshwater systems and are considered the third most imperiled taxa on the planet. In 1906, Arnold Ortmann published one of the most complete historic crayfish surveys ever conducted, which has allowed Pennsylvania to assess changes to crayfish fauna over the past century. More recently, waterways have been impacted by anthropogenic stressors such as urbanization and extractive industry. Our primary goal is to determine changes in species distributions and relative abundances of crayfishes in western Pennsylvania by visiting historical and new sites. Surveys in 2015-16 focused on collecting primary burrowers by trapping and burrow excavation. In 2017, efforts shifted to epigean species in the Upper Ohio River drainage, using standardized sampling of 10 seine hauls/site to assess 265 sites. Populations of primary burrowing crayfishes were found at 20% of 61 historical sites and 72% of 57 new collection sites. Of epigean crayfishes, 79% were found at 102 historical sites and 97% of 163 new sites. These collections represent approximately 60% of the survey, with remaining collections to occur in 2018. Important findings were three nonnative species: *Faxonius rusticus* (Rusty Crayfish), *Procambarus clarkii* (Red Swamp Crayfish), and *Procambarus acutus* (White River Crayfish). Preliminary data suggests that crayfish fauna in western Pennsylvania has remained moderately stable over the last century, though the presence of nonnative crayfishes indicates the need for continued monitoring. Efforts in Pennsylvania must focus on prevention and management of the spread of nonnative species to preserve the native crayfish populations that remain.