

JADEN RUSNAK, ZACKARY GRAHAM, Department of Biological Sciences, West Liberty University, West Liberty, WV 26074, DAVID LIEB, Environmental Services Division, Pennsylvania Fish and Boat Commission, Bellefonte, PA 16823, & ZACHARY LOUGHMAN, Department of Biological Sciences, West Liberty University, West Liberty, WV 26074. Updated Range Extents of *Cambarus monongalensis* and *Lacunicambarus thomai* in Western Pennsylvania.

Crayfish represent an important ecological role throughout diverse freshwater and terrestrial ecosystems within Pennsylvania. As anthropogenic threats such as agriculture, urban development, and invasive species introductions have only increased, the assessment of Pennsylvania crayfish taxa is imperative. The disjunct nature of primary burrowing crayfish may exacerbate the anthropogenic effects on populations. Previous large-scale burrowing crayfish collection efforts in western Pennsylvania have suggested that *Cambarus monongalensis* and *Lacunicambarus thomai* have limited distributions. This study aimed to reevaluate the distribution and conservation status of *L. thomai* and *C. monongalensis*. A total of 330 sites were sampled during 2024 and 2025 within the known range of both species. Of the 330 sites, there were 40 *L. thomai* historical sites and 37 *C. monongalensis* historical sites. Historical site localities were compiled from previously collected records, including unpublished sources, reports, publications, and museum collections. Suitable burrowing crayfish habitats such as wetlands, seepages, vernal pools, streambanks, floodplains, and roadside ditches were targeted. In addition, GIS landcover analysis was used to observe differences in confirmed presence and absence sites for *C. monongalensis* and *L. thomai*. Although the results of this study showed no significant changes in the distributions of *L. thomai* and *C. monongalensis* within western Pennsylvania, the information is important for the conservation of primary burrowing crayfish in the state.