

PATRICK F. ALLISON JR., Dept. of Natural Sciences and Mathematics, West Liberty University, West Liberty, WV, 26074, DAVID A. LIEB, Dept. of Conservation and Natural Resources, Pennsylvania, Harrisburg, PA, 17101, ZACHARY J. LOUGHMAN, Dept. of Natural Sciences and Mathematics, West Liberty University, West Liberty, WV, 26074, and HOLLY L. RACINE, Dept. of Natural Sciences and Mathematics, West Liberty University, West Liberty, WV, 26074. Conservation Assessment of *Cambarus dubius* in Pennsylvania with Distribution Notes on *Lacunicambarus thomai*.

Burrowing crayfishes are poorly understood animals that face conservation and management issues due to a lack of distribution and ecological data. Within Pennsylvania, the burrowing crayfish *Cambarus dubius* has a limited distribution and its conservation status within the state is unranked. An assessment was conducted in southwestern Pennsylvania to assess the conservation status of *C. dubius* throughout its historic range. GIS-landscape data was used to analyze potential predictors of presence/absence. Six historic sites and 790 new sites were sampled for the presence of *C. dubius*. Of the 796 sites sampled, *C. dubius* was collected from 61 sites. Active crayfish burrows were present at 137 additional sites; these are predicted to be those of *C. dubius* due to the structure of the burrows. Additional biological and ecological data on *C. dubius* are also provided. The global model produced from logistic regression analysis was unable to predict variables of presence/absence; suggestions for additional variables to better predict presence/absence of *C. dubius* are provided. Collections also yielded populations of *Lacunicambarus thomai* within the range of *C. dubius* and are the easternmost within Pennsylvania.