

MITCHEL C. LOUGHMAN & ZACHARY J. LOUGHMAN, Department of Biological Sciences, West Liberty University, P.O. Box 295, West Liberty, West Virginia, 26074, USA. Life History of the Rock Crayfish (*Cambarus carinirostris*)

Crayfish are the third most imperiled organism in the United States and reach their peak global endemism in the Appalachians mountains. Crayfish are not only vital ecosystem engineers, but also keystone species that hold aquatic communities together. Despite this, life history data for these creatures is sorely lacking. As of 2013 only 42 of the 347 species (12%) of the crayfish in the U.S. and Canada have published life history studies, and only 9 of the 97 species (9%) in the genus *Cambarus* have published life history studies (Moore, et al. 2013). *Cambarus carinirostris* is a widespread secondary burrowing crayfish with an unknown life history. Herein this project we plan to conduct a full and precise life history study on this species that can be utilized for various conservation implications as well as serve as a surrogate for a secondary burrowing crayfish that needs immediate conservation actions.

Moore, M. J., Distefano, R. J., & Larson, E. R. (2013). An assessment of life-history studies for USA and Canadian crayfishes: Identifying biases and knowledge gaps to improve conservation and management. *Freshwater Science*, 32(4), 1276–1287. <https://doi.org/10.1899/12-158.1>