BAYLEY ROSEMAN, Department of Biological Sciences, West Liberty University, West Liberty, WV, 26074. Studying Temporal Shifts Related to Land Usage in Invasive versus Native Crayfish of the Potomac

North America has the highest crayfish diversity in the world. However, native species are under threat from invasive crayfish brought from other waterways. The Potomac River Basin in West Virginia currently has three invasive crayfish: *Faxonius virilis, Procambarus cf. zonangulus,* and *Faxonius rusticus*. The invasive species can push out the native crayfish, *Cambarus bartonni, Cambarus carinirostris*, and *Faxonius obscurus*.

To catalogue the spread of invasives, this study is revisiting historical study sites in Loughman et al.'s Epigean Crayfish of the Potomac River Basin in West Virginia. By revisiting previous sites and re-conducting the seine hauls and collecting the data regarding Loughman et al., this study will examine the temporal changes in crayfish species presence in streams.

After data collection, this study will also examine land usage in the Potomac basin to see if it affects the spread of invasive species. The exact statistical methods to measure these factors are still under review.

While certain stream features associated with land use, such as temperature, have been shown to affect the spread of *Faxonius virilis*, the goal is to identify what land use factors hinder the spread of all three invasive crayfish. Ultimately, the hope is that this study will be able to identify land-types and construct buffers that will naturally prevent the spread of invasive crayfish.