

LOYD BUTCHER, ZACHARY LOUGHMAN, GRACE AKE, ALISON WYER, MADELINE CECIL, and JEREMIAH DANN. West Liberty University, West Liberty, WV, 26074. A Study of *Amyntas sp.* Reactions to Climatic Variables

*Amyntas* is an invasive genus of earthworm native to the Korean peninsula and many of the Japanese islands. It is considered potentially damaging to the native ecosystem via its detrimental effects towards soil quality, the competition with other species of earthworms, and its disturbance to animals which naturally feed on earthworms such as salamanders. *Amyntas sp.* are prolific breeders and can achieve high densities within forest soils. It has been proposed that populations of *Amyntas* are naturally damaging to soil horizons due to disturbing new plant growth. During the summers and falls from 2022 to 2025, population surveys were conducted in an area of West Liberty University's campus woods community known to be infested with pheretimoid worms. These surveys included measurements of length, soil moisture, and pH, and were combined with collected climatic data from the National Weather Service. The *Amyntas sp.* growth rate, presence, absence, and clumping was compared to 19 different weather values including annual mean temperature and annual precipitation. Additional modeling was done using Growing Degree Days to determine the impact of the numerous summer droughts on *Amyntas sp.* to see if that's the root cause of the decreasing *Amyntas sp.* presence. The data collected implies a relationship between *Amyntas sp.* temperature, and moisture that leads them to being a comparatively vulnerable invasive species. *Amyntas* is classified as an invasive genus of *Megascolecidae*, however it seems that in spite of their parthenogenetic reproductive capabilities their negative impact may be potentially curbed by climate change.