

NICOLEENA STORER, JUSTIN SANCLEMENTE, BRIAN RINGHISER, and ZACHARY LOUGHMAN. Department of Organismal Biology, Ecology and Zoo Science, West Liberty University, West Liberty University, 26074. The Microhabitat Preferences Based on Relative Density and Stream Assessment of *Regina septemvittata* in a small West Virginia Stream.

*Regina septemvittata* is a slim-bodied water snake in the family Natricidae that is native to the northeastern United States. Being the only species to consume exclusively freshly molted crayfish, *R. septemvittata* is categorized as a specialist. The selectivity of prey suggests possible other narrow range preferences including refuge and hunting locations. This study is being conducted in the North Fork of Short Creek in Ohio County, WV. In addition, *Nerodia sipedon sipedon* is also found within the study stream system. *N. s. Sipedon* is a generalist water snake species that has been shown to be larger and more aggressive than *R. septemvittata*. Both species are captured throughout their activity period, April - November, starting in 2018. In addition to environmental and morphological data being recorded at the time of collection, qualitative habitat evaluation indexes (QHEI) were recorded at the initiation of the project. QHEI allows for a more standardized evaluation of the quality of the stream system. The combination of the quality of the stream in 100-meter sections of the stream in addition to snake location data can show relative preferences of *R. septemvittata* throughout the stream system. The current data suggests a greater preference for disturbed habitat as well as a higher frequency of hot spots in the stream as opposed to their generalist counterparts *N. s. sipedon*.