

Habitat requirements of two common aquatic snakes, *Regina septemvittata* and *Nerodia sipedon sipedon*

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Regina septemvittata (Queen Snakes) and *Nerodia sipedon sipedon* (Common Watersnake) are semi-aquatic colubrid snakes that utilize streams for their primary source of prey. Both species are currently listed by the International Union for Conservation of Nature as stable. The goal of this study was to determine which specific habitat aspects affect the presence or absence of *R. septemvittata* and *N. sipedon sipedon*. Snakes were collected in the summer and fall of 2017 from August to October in North Fork of Short Creek, a 3rd order stream located just south of West Liberty, WV. Using the Ohio QHEI form to quantify stream quality and program PRESENCE to generate Logistic Regression Models, stream sub-habitat types were compared with occurrence data. Resulting models revealed which specific sub-habitat types were associated with positive occurrence. Univariate models selected for riparian zone determined by the width and predominant cover present with an AIC weight of 0.499. Multivariate models selected riparian zone with an AIC of 0.372 and riparian plus total stream health with AIC of 0.185. Our preliminary data indicates that snake presence is related to both riparian zone and water quality. This suggests that sufficient cover quality and stream health are required to maintain populations of *Regina septemvittata* and *Nerodia sipedon sipedon*.