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General ecology analysis of a *Regina septemvittata* population in North Fork Short Creek, West Virginia.

Habitat fragmentation and destruction have caused queen snake (*Regina septemvittata*) populations to decline throughout their range. Despite being listed as critically imperiled in five states, imperiled in two states and Ontario, and vulnerable in two other states, information on specific populations is lacking. Research on a population's behavior, morphometrics, diet, and natural history may give insight on regional variation, and allow the curation of conservation efforts with consideration of locational differences and proximity to urban environments. Queen snakes are cryptic and semiaquatic, making them difficult to locate, and thus not frequently or thoroughly studied. A queen snake population inhabiting approximately 4.5 kilometers of the urban North Fork Short Creek in Ohio county, West Virginia was examined from April 2018 until September 2025 for capture demographics, movement, growth, diet, and community. A total of 564 Queen snakes were collected, with 245 females, 236 males, and 83 of an undetermined sex. Visual encounter surveys paired with hand collection and metal wire minnow trap lines were utilized for snake capture. Passive Integrated Transmitter tags were used to identify recaptured individuals. Diet was analyzed through examination of 21 regurgitated prey items. Prey base was found to be 62% *Faxonius obscurus* (Allegheny Crayfish) and 38% *Cambarus carinirostris* (Rock Crayfish). Reaching a more detailed understanding of queen snakes both as a species and at a population level can illuminate conservation priorities, such as habitat requirements and prey species across their range.