Ticked-Off: Determining the Presence, Abundance, and Distribution of Potentially Pathogen-carrying Ticks Across an Urbanized Landscape in Lynchburg, VA, with an Emphasis on Determining the Prevalence of Borrelia Burgdorferi Infected Ticks

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Ticks are ectoparasites that pose significant health threats to humans and non-human animals. Different species of ticks are capable of harboring and transmitting a large variety of diseases, such as Lyme disease. As urbanization continues to disrupt relationships between ticks and their non-human hosts and as more people populate urban areas, the potential for ticks parasitizing humans is increasing. This project aims to officiate what species of ticks are present and most abundant in urban areas throughout Lynchburg, VA, and then to determine the prevalence of ticks carrying *Borrelia burgdorferi*, the causative agent of Lyme disease. We will employ tick dragging techniques to collect ticks at 5 publicly accessible areas and will morphometrically identify these ticks in the lab. Then, we will use polymerase chain reaction techniques to test ticks for *Borrelia burgdorferi*. This project serves as part of a wide-ranging effort to determine tick abundance in urban areas.

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