Background

Ticks are known vectors of pathogens and diseases, however, in the Caribbean there is little research on tick epidemiology, pathogenicity, and prevention and control methods.

Specifically, there is no literature on ticks in Barbados. This knowledge gap is concerning as Barbados' warm and moist environment is ideal for tick multiplication. Additionally, Barbados is the most densely populated Caribbean island with high tourism traffic.

With ideal weather conditions and a high density of human hosts, there potentially are high risks for the propagation of tick-borne diseases (TBDs) and tick-borne pathogens (TBPs) in Barbados.

Methodology

Sampled 31 plots in 12 different locations in Barbados, November 6th - November 18th.

Results

459 tick larvae collected in the field
- 389 at Chalky Mountain Sites 2 and 3
- 1 at Harrow’s Organic Produce
- 3 at MaHinds Farm
- 80 at Holetown

75 ticks collected of varying life stages (nymph, larvae, and adult) from veterinary clinics

Identification

Four Veterinary Clinics collected ticks that came in on patients. Recorded (1) date of collection (2) host species (3) parish of origin. Collected qualitative data through veterinarian interviews.

Two Identified Tick Genera

Amblyomma 1
Rhipicephalus 458

We were only able to identify the taxonomic ranking of larvae specimens to genus due to a lack of defining characteristics. However, we were able to identify all nymph and adult specimens collected from veterinary clinics, down to the species Rhipicephalus sanguineus (brown dog tick).

Conclusions and Acknowledgements

We identified the presence of at least two tick genera in Barbados and established an effective field sampling protocol and procedure for tick collection. Moreover, we initiated connections and collection methods with local veterinarians. Future research on ticks in Barbados will be able to occur over a longer period and will test specimens for pathogens.

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