

Occurrence and Geographical Distribution of *Microsporidia* in Tick population in Ogun State, Nigeria

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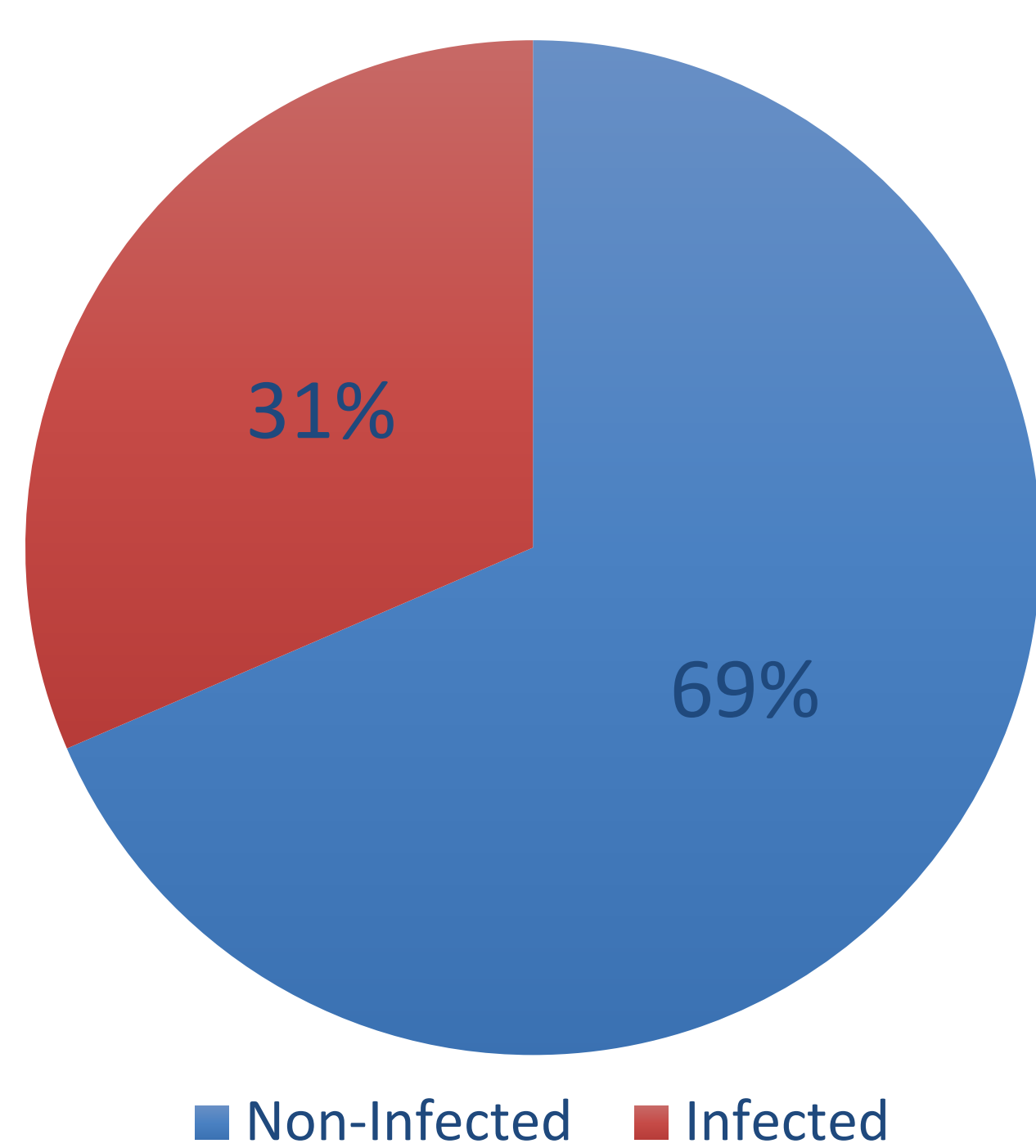
Introduction

- ❖ *Microsporidia* endosymbionts are emerging as promising microbes for the biological control of arthropod vectors.
- ❖ Ticks are considered the second most important arthropod vector of public health concern after mosquitoes.
- ❖ However, the occurrence and geographical distribution of these parasites remain unmapped in ticks.

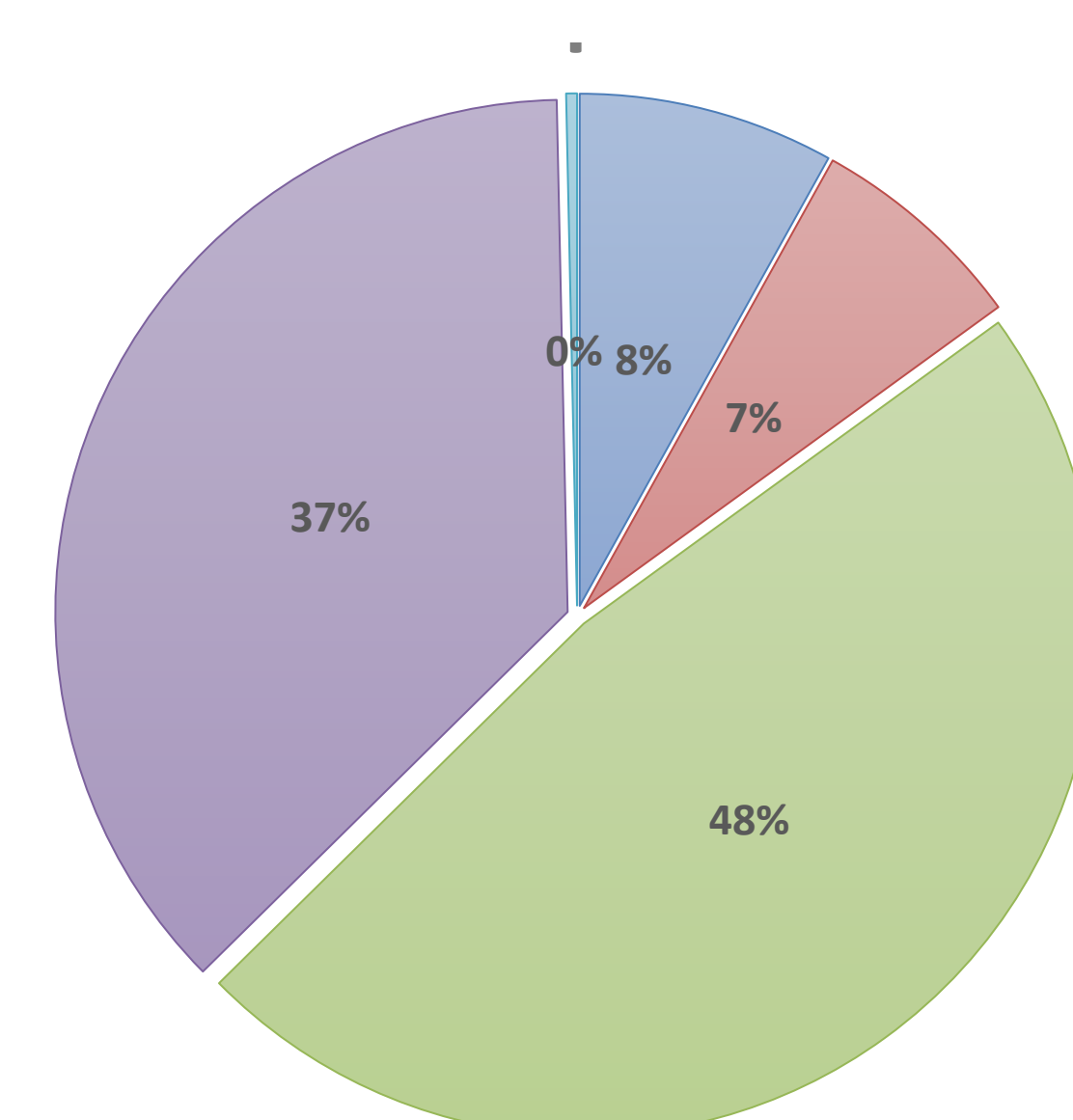
Methodology

- ❖ Tick species were collected from 68 cattle and 13 dogs from 4 locations (Gbonagun, Asero, Lafenwa and Ita-Eko) in Ogun State, Nigeria.
- ❖ The ticks were morphologically identified and characterized into sex and developmental stage.
- ❖ Each tick was screened for the presence of microsporidia spores

Results



Microsporidia spores



■ *Amblyomma variegatum* ■ *Rhipicephalus (Boophilus) decoloratus*
■ *Rh. (Boophilus) microplus* ■ *Rh. (Boophilus) annulatus*
■ *Hyalomma marginatum*



Rh. (Boophilus) microplus



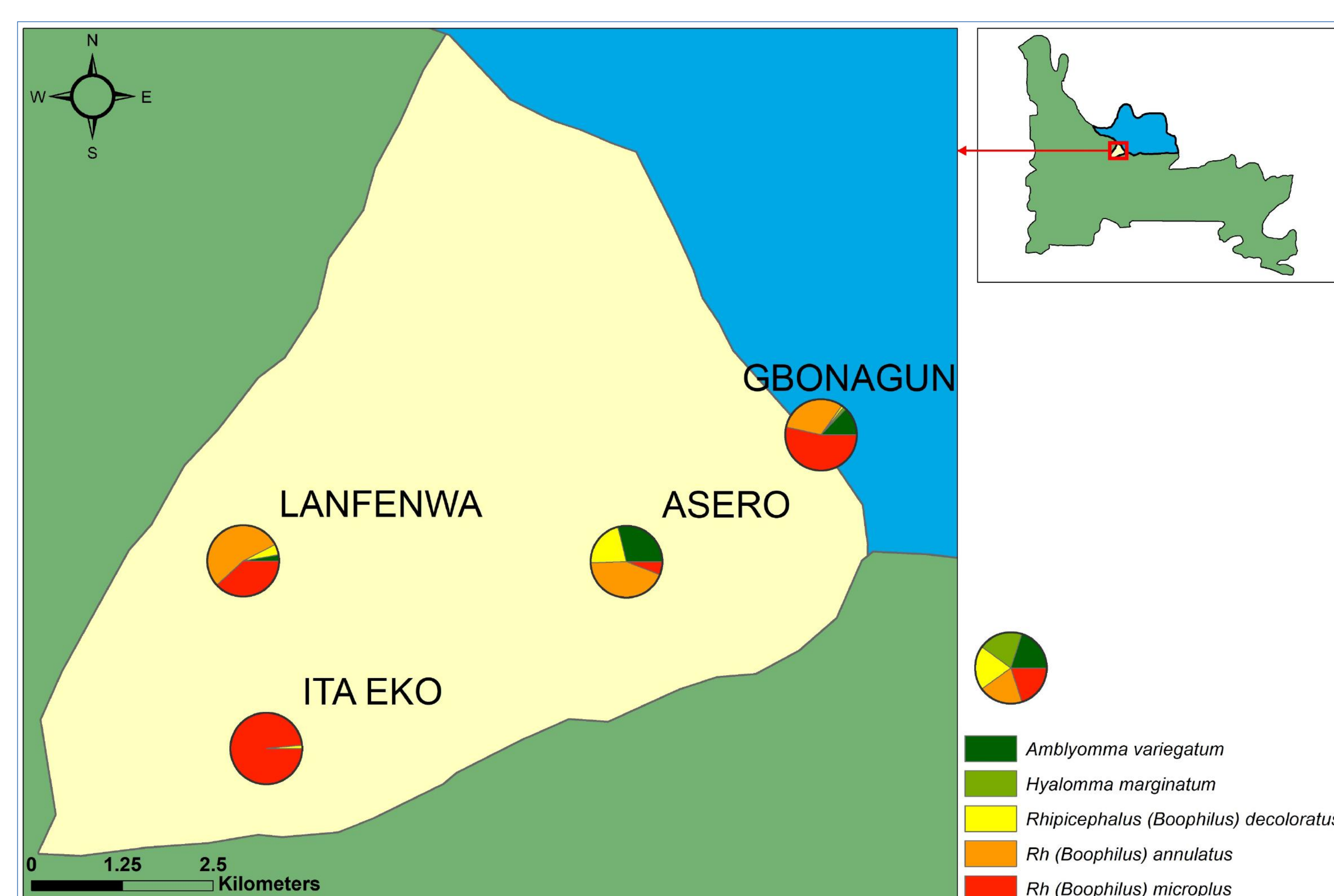
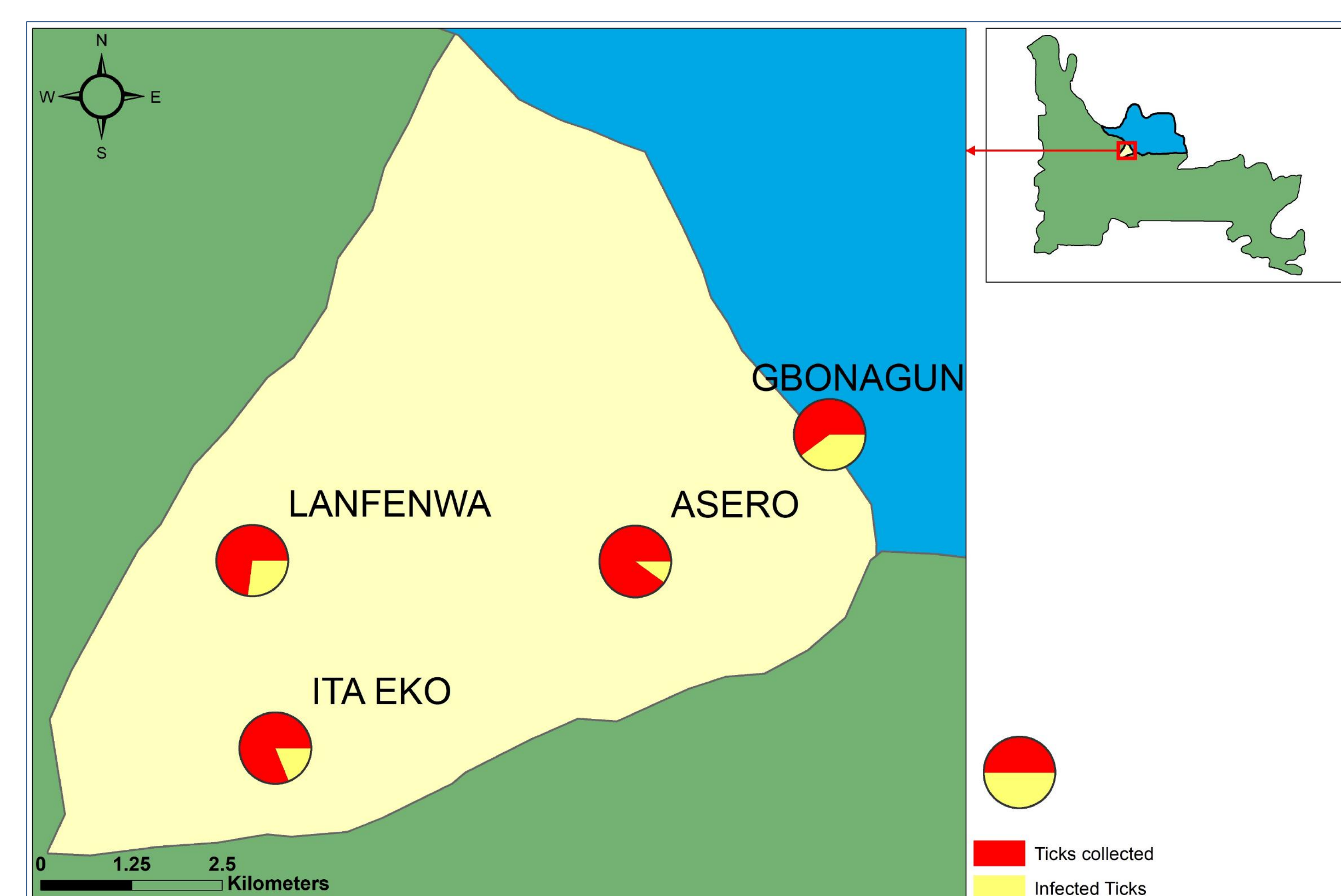
Rh. (Boophilus) decoloratus



Rh. (Boophilus) annulatus



Amblyomma variegatum



Geographical Distribution of *Microsporidia* in ticks' population in Ogun State, Nigeria

Conclusion

- ❖ *Microsporidia* endosymbiont are widely distributed in the tick populations in the State.
- ❖ The presence of *Microsporidia* was significantly ($p = 0.005$) higher in the *Rh. (Boophilus) microplus* ticks.
- ❖ Its role in tick growth and reproduction is not known.
- ❖ PCR screening and characterization of the detected *Microsporidia* is ongoing.

Acknowledgement

• Department of Pure and Applied Zoology, Federal University of Agriculture Abeokuta | College of Veterinary Medicine, Federal University of Agriculture, Abeokuta.