

Scientists conduct molecular analyses of ticks from southern China

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Tick-borne pathogens have become emerging global health threats in humans and animals. The objective of a new study published in *Zoonoses* was to investigate *Anaplasma*, *Ehrlichia*, *Babesia*, and *Borrelia* in ticks in

southern China.

Ticks were collected from animals and identified to the species level. Tick-borne *Anaplasma*, *Ehrlichia*, *Babesia*, and *Borrelia* were tested by PCR assays, and analyzed by sequencing and phylogenetics.

In all, 747 ticks were collected, including *Rhipicephalus microplus* (n=225) and *R. sanguineus* (n=522), from pet dogs in Guangdong Province of southern China. Using PCR and [phylogenetic analysis](#) the researchers showed that the ticks carried *Anaplasma platys*, *Ehrlichia canis*, *Borrelia miyamotoi*, *Babesia vogeli*, and an unclassified *Ehrlichia* species in *Rhipicephalus* [ticks](#).

Of these pathogens, *B. miyamotoi* was first found in southern China. *A. platys*, *E. canis*, and *B. miyamotoi* were zoonotic pathogens that infected both *R. microplus* and *R. sanguineus*, whereas *Ba. vogeli* only infected *R. sanguineus*, with a prevalence of 0.3%–1.5%.

The results of this study show the diversity and complexity of tick-borne [pathogens](#) in the Guangdong Province of southern China, implying the importance of tick-borne pathogen surveillance and control.

More information: Li Zhang et al, Molecular Characterization of *Anaplasma*, *Ehrlichia*, *Babesia*, and *Borrelia* in Ticks from Guangdong Province of Southern China, *Zoonoses* (2023). [DOI: 10.15212/ZOONOSES-2023-0017](#)

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