

THE PREVALENCE OF *BORRELIA BURGdorFERI* IN *IXODES RICINUS* TICKS DETECTED BY PCR IN LITHUANIA

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Abstract. *Borrelia burgdorferi* sensu lato (s.l.), the aethiological agent of the zoonosis Lyme borreliosis (LB) is transmitted by ticks *Ixodes ricinus*. Distributed virtually throughout Eurasia and N. America, it is considered the most important human tick borne disease. Our study was the first attempt to determine the prevalence of *B. burgdorferi* (s.l.) infection in ticks *I. ricinus* in Lithuania by using polymerase chain reaction (PCR). Questing 477 *I. ricinus* ticks from different locations throughout Lithuania were collected. Furthermore, DNA from individual ticks was extracted and PCR was performed. The primers FL6 and FL7 were used for amplification the flagellin gene fragment of the spirochete genome. The products were visualized by electrophoresis. The mean prevalence of *B. burgdorferi* s.l. was 6.9% (33 ticks were positive) with range from 0 to 33% at the different locations of Lithuania. Since the prevalence of infected ticks in different locations was very variable, further studies and more detail investigations in Lithuania are needed.

Keywords: *Borrelia burgdorferi*, PCR, *Ixodes ricinus*, prevalence.