
(Invasive) alien vertebrates

Raccoon dog (*Nyctereutes procyonoides*) as a reservoir for vector-borne and zoonotic pathogens in Lithuania

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DOI: 10.20315/evmc.2025.155

As an invasive alien species, raccoon dogs (*Nyctereutes procyonoides*) may significantly contribute to the spread of vector-borne and zoonotic pathogens due to their adaptability and broad diet. Thriving in various habitats and interacting closely with native wildlife, these animals can serve as effective reservoirs and transmitters of diseases, posing substantial risks to wild and domestic animal health. The aim of this study was to examine the presence of various pathogens in raccoon dogs and their ticks from Lithuania. Raccoon dogs and their ticks were screened via PCR using specific primers for *Babesia* spp., *Bartonella* spp., *Borrelia* spp., *Rickettsia* spp., *Anaplasma* spp., and *Francisella tularensis*. Phylogenetic analysis of the obtained sequences showed *B. microti*, *R. monacensis*, *R. helvetica*, *B. afzelii*, *B. miyamotoi*, *B. valaisiana* and *A. phagocytophilum* in the tested samples, while *F. tularensis* pathogens were not detected. Our results suggest that raccoon dogs and their ticks may play an important role for the transmission of vector-borne and zoonotic pathogens in Lithuania. However, further studies are needed to fully understand the extent of their involvement in pathogen transmission.