Babesiosis is as one of the emerging human and animal diseases transmitted by ticks. It is caused intraerythrocytic parasites of the genus Babesia. Current evidence of human babesiosis suggests that the majority of cases are involved by Babesia divergens and Babesia microti piroplasms.

As zoonotic reservoir of Babesia microti serve small mammals – insectivores and rodents. The occurrence of this parasite in natural environment in Poland is documented from various regions, in the wide range of mammal hosts. The most important role as Babesia reservoir play Microtus voles. The prevalence of infection in Microtus arvalis studied in Mazurian Lakeland is 9-33%; in Microtus agrestis in Katowice agglomeration reach almost 50%, Microtus oeconomus in Białowieża 7.7 – 50 %. The lesser role as zoonotic reservoir play Clethrionomys voles, Apodemus mice and shrews; the prevalence of infections in these mammals don’t exceed 2 %. The vectors for Babesia microti piroplasms in middle-European conditions are Ixodes ricinus, I. trianguliceps and Dermacentor reticulatus. There were recorded the infections of Ixodes ricinus ticks with Babesia microti in Szczecin, the rate was 6.2 - 13.3%.

The variation in Babesia microti prevalence in rodents and ticks is very changeable and determined by season, the interaction with other hemoparasites, host’s age and local conditions.