

This thesis deals with biting midges of the genus *Culicoides*, which are tiny nematoceran insects belonging to the Diptera, and their parasites. Biting midges partake in transmissions of several parasitological organisms of various groups. Most notably, they are the vectors of several pathogenic viruses which might have a serious impact on livestock. However, the thesis deals with detection of parasites belonging to Trypanosomatids and Filarioids related to two independent biting midges collections – from the Czech Republic and from the Central African region. Apart from testing biting midges, there were carried out the tests on the occurrence of the same group of parasites within ruminant hoofed games in the Czech Republic. Our goal was to find out whether the same parasites occur with biting midges and their hosts (hoofed games) and whether biting midges could play a role as vectors.

Biting midges are relatively overlooked group of haematophagous insects. Until recently, they had not been paid much attention, which changed with the spread of Bluetongue virus over Europe. This stimulated a widespread monitoring of biting midges in several European countries, including the Czech Republic. This helped to gain a large amount of data about the occurrence of biting midges near livestock. Nevertheless, there is no particular study concerning the occurrence of biting midges in close proximity of hoofed game. In this respect, the thesis tries to fill the gap of our knowledge. In addition, the thesis provides valuable information about the fauna as well as morphological and genetic variability of biting midges in the Central African region.