

Capillaridae family infection in bats living in Upper Silesia, Poland

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Bats are the potential vectors and reservoirs of a number of infectious diseases including zoonoses. This has potentially important consequences as the living environments of humans and bats increasingly overlap each other due to the destruction of the habitats of these mammals. As animals living in close proximity to humans (attics, barns, old farms, or historic buildings), they deserve special attention. The primary objective of our study was to determine the species diversity of endoparasites occurring in the bodies of bats which inhabit areas of the Upper Silesia region, especially those which may threaten humans. In Europe, bat endoparasites have typically been observed by autopsy. However, as all species of bat in Poland are strictly protected, it is possible to study endoparasites of bats only by examining their feces. The analysis included four colonies of *Myotis myotis* from the area of Upper Silesia (Zagwiździe, Dąbrówka Dolna, Siewierz, Siemonia). The colonies comprised 20 to 200 individuals each. A total of 60 aggregate samples of feces were collected from the bats. The material was collected over five days in late April and early May after the bats left their wintering sites and began forming summer breeding colonies. The samples were collected directly from under the colonies on sheets of foil (4×5 m). The material was protected in test tubes, packed into transport containers, and stored at a constant temperature of 4°C throughout the collection period. For parasitological evaluation, the samples were processed by *decantation* and *flotation*. Under laboratory conditions, the samples were subjected to a thorough parasitological assessment under a Nikon YS100 light microscope. The tests found invasions of nematodes of the genus *Capillaria* spp. in the *Myotis myotis* bat in two of the four colonies (Dąbrówka Dolna and Zagwiździe). Also, nematode eggs from the family Strongyloididae were found in the colony at Dąbrówka Dolna. All samples presented arthropod and aquatic crustacean eggs, as well as Gregarina cysts. This result corroborates the findings of a complete parasitological study conducted on a large group of bats from this family in Spain. Research to date and the results presented here constitute a springboard to a longer test cycle involving endoparasites of bats.