

The evaluation of dirofilariosis among shelter dogs in Kraków

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Dirofilariosis is considered to be one of the fastest spreading parasitic diseases in Europe. Among the factors affecting the expansion of *Dirofilaria* spp. to the north, changes in climate, especially increases in annual average temperature, play a significant role. Members of the genus *Dirofilaria* mainly parasitize canines, but other carnivores, and occasionally humans, can be also infected. The presence of *Dirofilaria* in dogs was reported for the first time in Poland in 2009, in the Masovian Voivodeship, and since then the number of reports on dirofilariosis has been constantly increasing. The present study was conducted in 2015 in Kraków. In total, 124 dogs from the animal shelter were studied for the presence of *Dirofilaria* using Knott's method with modifications. Microfilaremia were detected in 11.3% of the examined dogs. Amplification of the specific fragments of cytochrome oxidase subunit 1 (COI) confirmed the conspecificity of the examined material with *D. repens*. Statistical analysis revealed that the presence of *Dirofilaria* is affected by sex of the host and is age-dependent.