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**MORPHOMETRIC ANALYSIS OF MICROFILARIA DIROFILARIA REPENS  
ISOLATED FROM THE BLOOD OF POLISH DOGS**

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In recent years the first cases of canine filariosis in Poland were reported however, no morphometric data was provided. Our recent results show that at least two species of canine filaria are present in Poland. The aim of this preliminary study was to obtain information on the basic morphometrical parameters of *Dirofilaria repens* microfilaria isolated in Poland.

**Materials and Methods**

Infected dogs originated from the vicinity of Warsaw. Thin blood smears were stained using the Pappenheim method (May-Grunwald – Giemsa). Pictures were taken with a CCD camera attached to a Zeiss microscope using magnifications:  $\times 10$ ,  $\times 20$  and  $\times 40$ . Image analysis was performed using the Motic Images Plus 2.0 system.

**Results and Discussion**

A total of 26 microfilaria specimens were measured. The body length and width of the measured microfilariae were (in  $\mu\text{m} \pm \text{SD}$ ):  $343,7 \pm 18,0 \times 7,58 \pm 0,74$ . Therefore, the size of the examined specimens fits the measurements of *D. repens* microfilaria described by Tasić *et al.*, 2008 ( $350,9 \pm 8.2 \times 7.62 \pm 0,24$ ).

## DIAGNOSTIC STRATEGIES FOR FILARIAL PARASITES DETECTION IN DOGS

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The pattern of geographic distribution of canine filarial parasites in Central Europe has been changing, most likely because of climate warming and the lack of specific veterinary regulations on companion animals travel within the EU. Various approaches towards the detection and identification of canine filarial parasites in blood were described. The choice of the methods used for screening blood samples depends on a number of factors: quantity of samples to be analyzed, available equipment and the level of diagnostic experience of the researcher. The methods most generally employed in the diagnostics of microfilaremia and the differentiation between discovered microfilaria species are microscopy and PCR. However, both traditional and molecular methods have their limitations and these should be considered when an experiment involving screening a large number of specimens is designed. Molecular methods seemed to be more suitable for researchers less experienced in parasite morphology. If, however, the choice of genetic markers for PCR is wrong, the results can be false negative. The authors' experience from the first part of microfilaremia screening for dogs in Central Poland will be presented.

**THE FIRST CASES OF CANINE ACANTHOICHEILONEMA RECONDITUM  
(GRASSI, 1890) (NEMATODA, ONCHOCERCIDAE) IN POLAND**

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The microfilaria specimens detected in blood samples of two dogs were subjected to morphometric and molecular analysis. The specimens were recognized as *Acanthocheilonema reconditum* (Grassi, 1890). The results of species identifications were confirmed by DNA sequencing. These are the first two cases of canine *A. reconditum* infection in Poland.