

Are we dealing with a new parasitosis? The study of occurrence of *Baylisascaris procyonis* (Ascarididae, Nematoda) in public areas of Western Poland

Marcin Popiołek, Joanna Hildebrand, Agnieszka Perec-Matysiak, Alicja Bajon, Patrycja Źrebiec, Agnieszka Piróg, Natalia Kuśmierek

Department of Parasitology, Institute of Genetics and Microbiology, University of Wrocław, Przybyszewskiego 63/77, 51-148 Wrocław, Poland

One of the fastest spreading wild mammals at present in Europe is the raccoon (*Procyon lotor*), introduced from North America. One of the most important consequences of the presence of a raccoon is the possibility of transferring epi- and zoonotic pathogens, including parasites, to new areas. From the veterinary and medical point of view, the intestinal nematode – *Baylisascaris procyonis* is one of the most important pathogens carried by raccoons. Studies on the level of soil contamination with eggs of *B. procyonis* were carried out in cross-border town – Kostrzyn nad Odrą (Western Poland), where the raccoon density was estimated at 7 to 25 individuals per 10 km2. Soil samples were taken from April 2014 to October 2017 in different recreation areas of regularly documented raccoon occurrence. A total of 388 samples were subject to parasitological analysis.

Eggs of *B. procyonis* were found in 26 samples (6.7%). The mean number of eggs per sample was 1.96. Considering the location of the sites, higher frequency of eggs of *B. procyonis* were found in places situated along the river, canals or at small water bodies, than in playgrounds (12,5% vs. 0,5%). Our seasonal analysis showed that the frequency of occurrence of eggs of *B. procyonis* in the examined soil was similar in the autumn and winter (from 6.1 to 6,3). The highest frequency per sample was recorded in the summer; and the smallest in the spring (12,2% vs. 3,7). The results seem to be significant from both epi- and zoonotic points of view, and the presence of eggs of *B. procyonis* in the soil of urban areas poses a real threat to human and animal health.