

The raccoon (*Procyon lotor*) as a reservoir of zoonotic diseases

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Parasites may infect many wild and invasive species in Europe. One invasive species is the raccoon (*Procyon lotor*) which is a common inhabitant of rural and urban areas. Although its role in transmitting zoonotic diseases to humans remains little known, the raccoon roundworm (*Baylisascaris procyonis*) and intestinal protozoan belonging to the *Giardia* are widespread and could affect free-ranging raccoons. Some cases of bayliascariosis in humans have been noticed.

The present study was performed to determine the prevalence of *helminths and intestinal protozoa* in wild raccoons from Germany and Luxemburg. Fecal samples were collected from the rectums of 100 road-killed and selectively-hunted animals. The species and genotypes of nematodes and intestinal protozoan parasites were identified using morphometric analyses and molecular methods. Total DNA was extracted from *Giardia* cysts directly from each fecal sample and from obtained nematodes. DNA was amplified using primers directed to the fragments of β-giardin and 18S rRNA genes.

Sequencing of the PCR products revealed that *Giardia* isolated from the raccoons belonged to assemblage B and the nematodes were of the raccoon roundworm *B. pryconis*. The results suggest that raccoons are reservoirs of zoonotic *Giardia* isolate and *B. procyonis*, which is regarded as an emerging zoonotic pathogen of humans.