The level of infection endoparasites in wild boar

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Introduction

The population of wild boar has been systematically growing. The increase in number of boars causes the migration of the species to urbanized areas posing a real threat not only for forestry-involved people but as well for residents of cities. Endoparasites disseminate along with their hosts' migration posing a growing threat for people.

Material and methods

The aim of the study was to determine the species composition and the intensity of endoparasites contagion among free-living wild boar. The parasitological diagnosis was conducted on the basis of coproscopic methods (flotation and the McMaster).

The coproscopic study was carried out on 50 wild boar during spring 2014. Quantitative method with McMaster chambers application and preliminary feces purification, was used for eggs detection and isolation from feces. Feces lumps of a weight of 3 g were poured with 42 ml of water and homogenized. Next, the liquid was poured through a sieve to centrifuge test tubes. The precipitate from the sieve was removed, and liquid was centrifuged for 2 minutes at 1500 rpm. Then the liquid was poured, and 45 ml of NaCl was added to the remaining precipitate. The liquid was then mixed carefully and the chambers were filled. Specimen prepared this way was examined under Nikon Eclipse E100 light microscope, and the eggs in both chamber fields were counted according to the following formula (Gundłach and Sadzikowski, 2004).

Flotation method for detection from feces, was performed concurrently in order to eliminate potential low infestation. Feces lump was poured with saturated NaCl solution (350g salt per 1 L of water) and it was mixed until homogenous suspension was obtained, then was poured through the sieve and funnel to the test tube until convex meniscus was obtained. Cover slip was placed on liquid surface and left for 20 minutes. After that, the cover slip was transferred on a microscope sidle and examined under microscope (Gundłach and Sadzikowski 2004).

The eggs found were identified according to their morphology (shape, sheath structure, number and size of blastomeres or larvae presence) and biometry. The identification was done using reports of Thienpont et al. (1986) and Zajac and Conboy (2006).The numerical material was analyzed using the STATISTICA statistical program.

Results

The presence of parasites was detected in 91% of the examined population. As a result of the study conducted, were identified and isolated *Coccidia*, *Ascaris sum*, *Strongyloides ransomi*, *Oesophagostomum* spp. and *Trichuris suis*.

The most abundant parasite was *Coccidia* prevalence- 74% then *Ascaris suum* prevalence- 46% next *Strongyloides ransomi* prevalence - 33%, *Oesophagostomum* spp. prevalence – 24% and *Trichuris suis* prevalence – 5% (Figure 1).

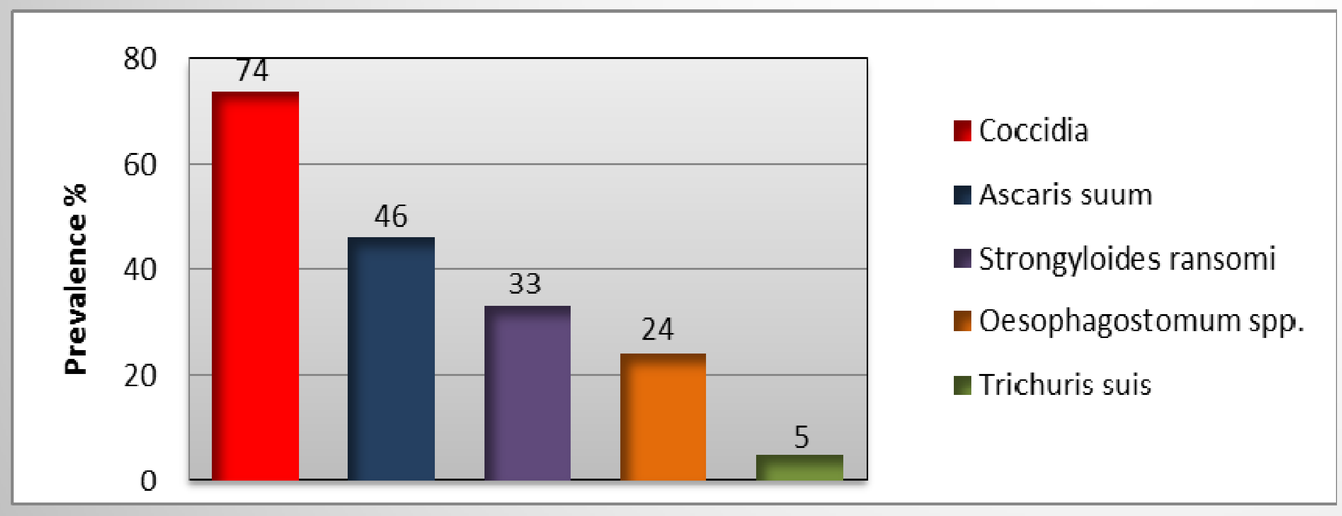

Figure 1. Prevalence of endoparasites infection in wild boar

The average EPG was the highest in number for *Ascaris suum* (12326), and respectively for *Trichuris suis* (6522), *Oesophagostomum* spp. (2162) and *Strongyloides ransomi* (2608) (Figure 2). The average *Coccidia* was determined at the level of 34 mean number of samples.

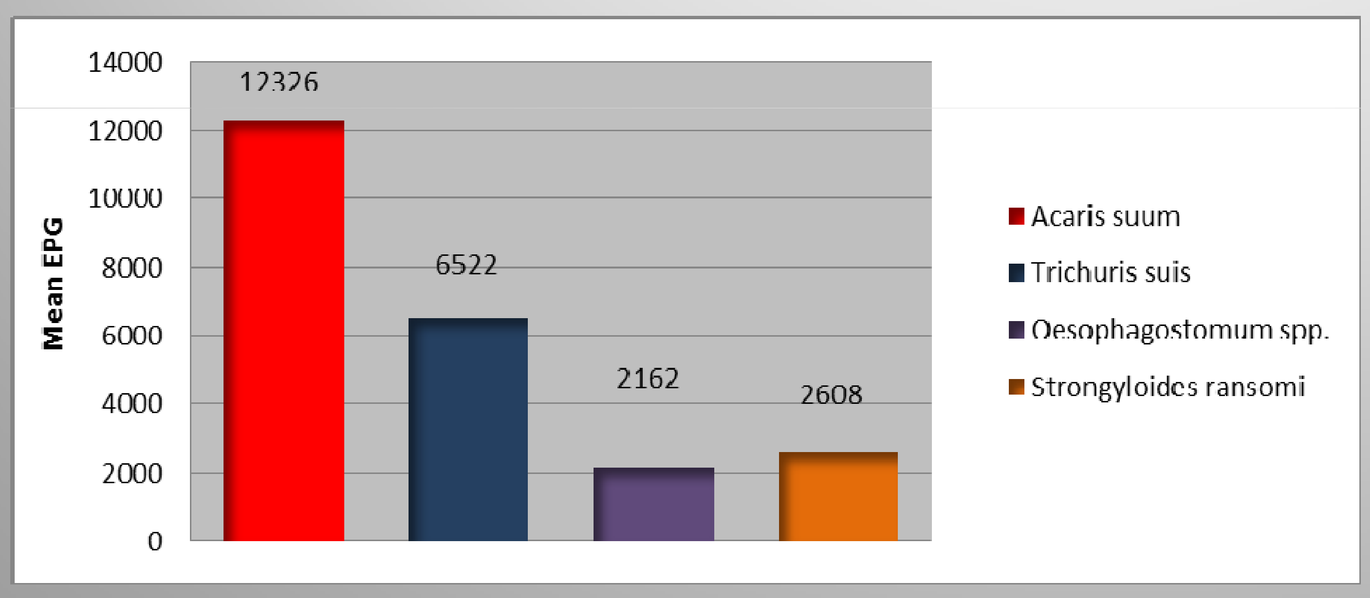

Figure 2. Average EPG (eggs per gram) of endoparasites in samples collection of wild boar

Conclusions

The most current knowledge regarding the level of endoparasites contagion among wild boar seems to be insufficient. Periodic wild boar examination and efficient determination of parasitic morbid entities will not only help in valuation of the condition of the game, but as well in providing sufficient treatment and minimizing the risk of contagion for people.