



Monitoring of nematodes hosted by endangered Bonobo (*Pan paniscus* Schwartz 1929) at Lola ya Bonobo Sanctuary (Kinshasa, DRC).

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ABSTRACT

Subject description: Infectious diseases are now recognized to have a significant impact on some populations of wildlife. Although many infectious agents are species-specific, several pathogenic organisms can cross the species barrier and cause severe clinical diseases in new hosts. It is critical to understand the role played by emerging infectious diseases and zoonoses transmitted between humans and great apes.

Objective: The objective pursued by this study is to contribute to the sustainable conservation of bonobos (*Pan paniscus*), an endemic species of DRC that faces various threats including diseases such as parasites.

Methods and Results: The lab analyses were carried out at the Central Veterinary Laboratory in Kinshasa based on two main methods including qualitative and quantitative coproscopy by flotation and counting the number of eggs per gram (OPG) by the McMaster method.

In total 72 samples were analysed, 46 samples (64%), were infested by five species of nematodes, including *Ankylostoma spp.*, *Trichostrongylus spp.*, *Ascaris lumbricoides*, *Trichuris trichiura* and *Oesophagostomum sp.* The infestation with *Trichostrongylus spp.* was found to be higher compared to other nematodes. In addition, subadults were more infected compared to specimens of other age groups.

Conclusion and application of results: In this study, nematodes hosted by endangered bonobos were monitored in a relatively large number of 72 bonobos samples. The study found that individuals that were more central in the social interaction such as Subadults had higher chances of contracting parasites. These results indicate that for bonobos, social behaviour and age influence the risk of contracting parasites. Two factors that can be taken into account when managing diseases outbreaks in captivity and regular monitoring and treatment of individuals must be done to protect the species.

Keywords: Bonobo, Zoonotic, Nematodes, Parasites, Sanctuary, Democratic Republic of Congo.