

Taenia martis in a white-headed lemur (*Eulemur albifrons*) from a Zoological Park in North Rhine-Westphalia, Germany.

Inhalt

Taenia(*T.*) *martis* is a zoonotic tapeworm found in the small intestine of carnivores, mostly of the *Martes* genus. In zoos, *T. martis* eggs can find a comfortable shortcut to new (and old) hosts. We report an example of this in a white-headed lemur, which was found dead in a zoological park.

A 5-year-old female white-headed lemur without previous history of disease was unexpectedly found dead in her enclosure in a zoological park, where she lived in a group of five lemurs. A complete necropsy was performed and samples were taken for histological examination and DNA purification. After DNA purification, a PCR for the amplification of the 12S rRNA mitochondrial fragment was performed. Subsequently, the amplicons were sequenced using Oxford nanopore next-generation-sequencing techniques. A cysticercal larva was found inside a nodule adherent to the pleura. Sequences of the PCR amplicons identified the larva as *T. martis*.

This is the first report of *T. martis* infection in a white-headed lemur. The origin of the infection was not determined but direct contamination with martens from the vicinity or food contamination are possible. *T. martis* is a zoonotic parasite. Therefore, animal keepers, veterinarians and other zoo staff are at risk for infection. Finally, *T. martis* infection could be fatal in non-human primate species which makes this case report also relevant with regard to conservation efforts.

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No, I am not a Junior Scientist.

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