

Liver flukes in wild ruminants from Slovakia

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Liver flukes, occurring in Slovakia, are important parasites belonging to the genera *Fasciola*, *Fascioloides* and *Dicrocoelium*. The aim of the study was monitoring liver flukes in wild ruminants including red deer (*Cervus elaphus*), roe deer (*Capreolus capreolus*), fallow deer (*Dama dama*) and mouflon (*Ovis musimon*) in 3 selected regions of Slovakia. Between 2014–2016 we examined 641 faecal samples from selected wild ruminants using coprological (sedimentation technique, method of Kleimann et al. 2005) and serological methods (ELISA detection of *F. hepatica* coproantigens). None of sample was positive for the presence of *F. hepatica* and *F. magna*. In 44 samples from wild ruminants we isolated characteristic *D. dendriticum* eggs (prevalence 6.86%). The most of positive samples were from mouflons (39 from 44 positive samples – 88.64%) and 5 positive samples were from red deer (11.36%). Prevalence of *D. dendriticum* in mouflons was 52.7%, in red deer was 1.08%. Positive samples came from 2 of 3 investigated regions (Prešov and Košice region). Environmental conditions in Slovakia are ideal not only for the development of native species, as well as the introduced (recorded by our previous findings – 14.03% prevalence of fascioloidosis). No *F. hepatica* cases in wild ruminants were recorded, although infections in cattle are known especially in the northern regions of Slovakia and pastures shared with wild ruminants. The results of previous study revealed areas with favorable conditions for *F. magna* development situated along the Danube River in the south of Slovakia. *D. dendriticum* is fixed mainly on domestic and wild ovids. Dependence of liver fluke incidence from weather factors indicate, that climate change have a marked influence on their development. Due to the zoonotic potential, it is necessary to continue with monitoring the occurrence of liver flukes in the territory of Slovakia.

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