

# ABSTRACT

**Charles University**

**Faculty of Pharmacy in Hradec Králové**

**Department of Pharmacology & Toxicology**

**Student:** Bc. Tereza Janoutová

**Supervisor:** Prof. RNDr. Jiří Lamka, CSc.

**Title of diploma thesis:** Actual helminthostatus of red deer population in Krkonoše mountains and results of its control after drugs administration

This diploma thesis deals with monitoring endoparasitic diseases in population of red deer (*Cervus elaphus*) in overwintering enclosure in Krkonoše mountains after the previous anthelmintics administration. During winter seasons in 2013/2014, 2014/2015, 2015/2016 and 2016/2017 rectal samples of 87 red deer were collected. These samples were examined by qualitative ovoscopic method for the presence of parasitic eggs and also by qualitative and quantitative larvoscopy method in which the type of larvae of lung nematodes and their numbers were determined. Ovoscopic examination showed the presence of eggs of the parasites belonging to genus *Chabertia* spp. and *Ostertagia* spp. with prevalence of 15,0 % (season 2014/2015) and 11,5 % (season 2015/2016). The total prevalence of intestinal nematodes for all winter seasons was 12,2 %. Larvoscopy showed high prevalence of larvae of lung nematode *Elaphostrongylus cervi*, which were found in 57,6 % (2013/2014), 75,0 % (2014/2015) and 48,0 % (2015/2016) of the samples. In the examined individuals of red deer the larvae of lung nematodes *Varestrongylus sagittatus* were also found with prevalence of 6,1 %, 15,0 % and 11,5 %. The larvae of lung nematode *Dictyocaulus noerneri* were found only in season 2014/2015 in 5,0 % of examined samples. The total prevalences of larvae of lung nematodes for all winter seasons were for *Elaphostrongylus cervi* 57,3 %, for *Varestrongylus sagittatus* 9,8 % and for *Dictyocaulus noerneri* 1,2 %.

**Key words:** parasitic diseases, lung nematodes, red deer, Krkonoše mountains, Czech republic