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LUNGWORM IN THE DOMESTIC MOUNTAIN HORSE AND THE BALKAN **DONKEY IN THE SPECIAL NATURE RESERVE IN SERBIA**

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Abstract: The domestic mountain horse and Balkan donkey are considered autochthonous species whose live in small herds in nature reserves Stara planina, Nature Park Zasavica and Special Nature Reserveand Krčedinska ada. During examinations at Star Planina Mountain infection with *D.arnfieldi* we established at 83, 33% horses and 59% donkeys. In Zasavica dictyocaulosis was established at 97% of horses and 100% at donkeys and at population breed in Krčedinska ada dictyocaulosis was established in all examined animals from both population (100%).

Introduction

The domestic mountain horse is one of the autochthonous horse breeds in Serbia and the Balkans. It was created by crossing the Tarpan (*Equus ferus*) and the Przewalskii (*Equus Przewalskii*) with the Arabian horse, resulting in numerous variations in coat color and body structure. The Balkan donkey is descended from the Somali donkey, which is a subspecies of the African wild donkey (*Equus africanus*).



Results and discussions

During examinations of the domestic mountain horse which are autochthonous breed, kept in a semi-free system together with donkey at Star Planina Mountain infection with *Dictyocaulus* arnfieldi we established at 83, 33% horses and 59% donkeys. Despite the high degree of infection, the intensity of the infections was low, so that milder clinical symptoms were present in only a few cases.

In Zasavica dictyocaulosis was established at 97% of horses and 100% at donkeys.

At population breed in Krčedinska ada dictyocaulosis was established in all examined animals from both population (100%).





Domestic mountain horse

Balkan donkey

Both species are considered autochthonous species whose numbers are declining, so they are classified as endangered species. Both species who's live in small herds in nature reserves Stara planina, Nature Park Zasavica and Special Nature Reserveand Krčedinska ada.

Material and method

The research included 157 Domestic mountain horses and 60 Balkan donkeys from nature reserves Stara planina, Zasavica and Krčedinska ada. Fresh feces of were sampled regardless of the sex or age of the animals that were on the investigated field. From herds bed at Stara planina we collected 124 samples of horses and 39 from donkeys. In Zasavica we collected 25 samples of horses and 14 from donkeys and in Krčedinska ada 8 samples from horses and 7 from donkey. For fecal examination we use modified Baermann's technique, before being transferred to a glass slide so that their morphological detail can be examined under the high power of a compound

Larvae of *Dictyocaulus arnfieldi*

D.arnfieldi is the true lungworm affecting donkeys, horses, mules and zebras and is found throughout the world The natural host and reservoir of *D.arnfieldi* are donkeys Donkeys, which usually show few signs of the infection, are the prime source of pasture contamination for horses Horses are not the favorite host of this parasite and do not usually transmit the disease to other horses. Horses that share pasture with donkeys or follow them into grazing used by donkeys within a few months are most likely to become infected

Conclusions

Routine deworming of horses and donkeys may help prevent cross infection when kept together. Reducing pasture contamination with infective larvae is a key preventative measure that can be achieved to a large extent with adequate management measures.

