

# **Parasitic infections in domestic animals from Roma communities, Romania**

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Roma community is the largest ethnic minority from Europe, between 11 and 12 million individuals, of which about 4 million live in Central and Eastern Europe, mostly in Bulgaria, Hungary, Romania and Slovakia.

The aims of the current study were to identify the presence of parasitic infections in domestic animals and to assess the risk for zoonotic infections in roma communities, from Romania.

Samples from domestic animals (horses, dogs, rabbits, chickens, cows, pigs) were taken from 13 roma communities. All locations were situated in Central, and Western part of the country. In total 32 fecal samples were taken and stored in clean, sterile containers. The samples were transported safely and tested individually with flotation, sedimentation, Blagg, and Ziehl-Nelson methods.

Regarding horses, only two fecal samples were obtained and tested, both of them were negative in all the mentioned methods. From all the cow samples (thirteen) that were taken, three were positive for *Cryptosporidium* cysts in Ziehl-Nelson method, four were negative in flotation, and six were positive for strongyle eggs, *Nemathodirus* eggs (one cow), and *Strongyloides* eggs (one cow). Regarding swine fecal samples (three), of which two were positive for strongyl eggs, two for *Balantidium coli* cysts, one for *Eimeria* spp, oocysts and one for *Ascaris suum* eggs (in the flotation method). Two rabbit fecal samples were taken, from which one was positive for *Eimeria* spp, oocysts and one for strongyle eggs in the flotation method.

Based on the obtained results we can conclude that domestic animals from the local roma communities are exposed to parasitic infections, and the local populations can gain zoonotic parasite infections. Periodical anti-parasitic treatments in domestic animals are recommended in the mentioned locations. The parasitological investigations carried out represent the premise of the development of new procedures to combat parasitosis in animals, in order to strengthen bioecological and epidemiological

security, in humanized ecosystems, with the reduction of the risks of zoonotic infections, through an approach according to the "One health, one medicine" principles.

Keywords: domestic animals, parasites, zoonosis, roma communities