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Helminth Fauna of the Black Rat, *Rattus rattus* (Rodentia: Muridae) in Phaselis/Antalya, TURKEY

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Aim of the study: Black rats are cosmopolitan species, commonly found living near sources of food and water. They are also found in human environments such as houses, warehouses and pantries. Rats can infect human and domestic animals through rodent excrement and by ingesting food contaminated with rodent's fur, feet, urine or fecal dropping. Some of the helminths of rodents can infect humans, which can cause serious diseases, like hepatic capillariosis or alveolar echinococcosis. The aim of this study is to determine the helminths of black rat which are very importend for public health and to contribute to the knowledge of helminth species in Antalya.

Material and Methods: The *Rattus rattus* sample was trapped on May 2015 in Phaselis/Antalya.The individual was deep frozen for preservation until further examination could carried out. For researching the rat sample for helminth species it was dissected from the anterior to the posterior. All of the internal organs were placed in petri dishes with water. The gastrointestinal tract was dissected from the mouth to the rectum. All of the organs were observed under stereomicroscope for helminth infection. The helminth species which were found were cleaned in distilled water. There was no need for fixation of the samples because they weren't living. The cestodes collected were stained in iron-aceto-carmine, dehydrated in a series of alcohols and mounted in Canada balsam. Nematode samples were dehydrated in 70% alcohol and preserved in small bottles with 70% ethyl alcohol with 5% glycerine. Preparation of nematode species for microscopy have been made with glycerine. The number of the helminths and the location they have been found were noted.

Results:*Hymenolepis diminuta* and *Nippostrongylus braziliensis* were determined in the small intestine of the rat. Furthermore *Nippostrongylus braziliensis* samples were found in the fundus section in the stomach and were much more compact and tightly coiled. In the large intestine *Syphacia muris* samples were found. It is known that the species *H. diminuta* can cause important diseases in human particularly in immunodeficient patients. In healthy patients *H. diminuta* can cause gastrointestinal and nutritional disorders. Rarely *S. muris* samples have been detected in humans which can also cause zoonotic diseases. The dominant species was *Nippostrongylus braziliensis* (n=81).According to these results it seems to be very important to make a detailed examination about the helminth fauna of *R. rattus* in Antalya and the vicinity of Antalya.

Acknowledgements: This study was partly supported by the Akdeniz University.

Keywords: *Rattus rattus*, helminths, nematodes, cestodes, Antalya