

Zoonotic importance of domestic rat *Rattus rattus* and pet animals in some selected sites of Western province in Sri Lanka

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Present study was carried out from January 2010 to July 2010. Zoonotic importance of domestic rat, *Rattus rattus* was studied by a parasitic survey of *R. rattus*. Zoonotic importance of pet animals was carried out by analyzing faecal samples of domestic cats, dogs and faecal samples of humans associated with them.

Parasitic survey was carried out in selected 13 sampling locations under 5 sites in Gampaha and Colombo districts. The sites were Gampaha, Kadawatha, Wattala, Dalugama and Sedawatta Bloemendhal. Out of 43 rats examined, no ectoparasites and blood parasites were recorded. Eleven rats caught from Sedawatta, Bloemendhal site were infected with intestinal helminth parasites *Hymenolepis* sp. (Phylum Platyhelminthes, class Cestoda) and *Strongyloide* sp. (Phylum Nematoda) where percentage infestation rate was higher in *Strongyloide* sp. than *Hymenolepis* sp. Gampaha, Kadawatha, Wattala, Dalugamasites were negative for any kind of parasite.

Faecal analysis of domestic cats and dogs revealed toxocarid type eggs and trichurid type eggs. Seventeen human faecal samples gathered from individuals of 1.5-16 years in Sedawatta, Bloemendhal site were positive for ascarid type eggs. Average human faecal egg count of males is higher than that of female in each age group. As the average faecal egg count of male and female of all ages are less than 10 000, it was rated as a mild infection. But the faecal egg count increased with the increasing age of the individuals.

The study revealed the presence of zoonotically important parasites of *R. rattus* were high in the areas where the environment is highly polluted and there is a higher risk for humans to acquire the zoonotic diseases.