**Abstract Number**

**GASTRO-INTESTINAL PARASITES IN TWO SUBSPECIES OF TOQUE MACAQUE *(MACACA SINICA)* AND**

**THEIR ZOONOTIC POTENTIAL**

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Gastro intestinal (GI) parasites in non-human primates have a greater potential to become zoonotic as well as anthroponotic. We examined the GI parasites in two subspecies of toque macaque: *Macaca sinica sinica* in the dry zone and *Macaca sinica aurifrons* in the wet zone of Sri Lanka. Fresh faecal samples were collected from the Polonnaruwa Archaeological Reserve and premises of the University of Peradeniya and analysed following a modified Sheather’s sucrose floatation method. Zoonotic and anthroponotic potential of *Entamoeba* sp. was investigated by PCR using species specific primers. Of the 98 macaques examined, 89 (90.8%) were infected with GI parasites. Overall, there was no difference in the prevalence of GI parasites between the two subspecies in the wet (95.9%) and dry zones (85.7% 2 =3.059, p = 0.080). A total of 16 parasite species were recorded including nine helminths and seven protozoans. Among the helminths observed, *Anatrichosoma* spp., *Ancylostoma* spp., *Capillaria* spp., *Oesophagostomum* spp., *Physaloptera* spp. have a zoonotic potential while *Ascaris* spp., *Enterobius* spp., *Strongyloides* spp., and *Trichuris* spp. have both zoonotic and anthroponotic potential. Among protozoans, *Balantidium coli*, *Buxtonella* spp. have zoonotic potential while *Entamoeba* spp. and *Cryptosporidium* spp. have both anthroponotic and zoonotic potential. This study provides the first record of *Anatrichosoma* sp. and *Buxtonella* sp. in Sri Lanka and the first record of *Cryptosporidium* sp. in the wet zone macaques. The molecular data confirmed the zoonotic and anthroponotic potential of *Entamoeb*a spp. of *E. nuttalli* and *E. coli*, respectively. Urban toque macaque populations and human monkey interactions are constantly increasing in Sri Lanka. Therefore, in-depth epidemiological studies of the zoonotic and anthroponotic pathogens in both monkeys and humans are important to better understand the potential public health risks and implications for conservation of toque macaques.

**Keywords**: Non-human primates, Anthroponotic, Dry zone, Wet zone

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