

PRESENCE OF *CRYPTOSPORIDIUM* INFECTION AMONG CAPTIVE DEER AT THE NATIONAL ZOOLOGICAL GARDENS, DEHIWELA

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Cryptosporidium is an enteric protozoan parasite capable of infecting a wide range of animal species including man. In Sri Lanka, this parasite has been detected in livestock species as well as in wild animals like monkeys (*Macaca sinica*).

In this study, faecal samples were collected from three species of deer (*Axis axis*, *Cervus unicolour unicolour* and *Muntiacus muntjac*) kept as exhibition animals at National Zoological Gardens, Dehiwela. The samples were concentrated using methods described by Scott et al. The samples were stained with modified Ziehl-Neelson and Giemsa and examined under light microscope for oocysts of *Cryptosporidium*.

Out of 23 faecal samples from spotted deer (*Axis axis*), 18 showed *Cryptosporidium* oocysts (78.26%). Among Sambhur (*Cervus unicolour unicolour*), 50% of animals were positive for *Cryptosporidium* oocysts while none of the animals from Parking deer (*Muntiacus muntjac*) were found to be positive for this parasitic infection.

The positive samples were subjected to polymerase chain reaction (PCR) using appropriate primers. Based on the banding pattern on gel electrophoregram, the isolates were identified as *Cryptosporidium parvum*.

This is the first report of the presence of *Cryptosporidium* infection among captive deer in Sri Lanka. Of the two species of *Cryptosporidium* (*C. parvum* and *C. muris*) found in mammals, *C. parvum* is known to cause diarrhoea in humans, particularly in children and immunocompromised adults where the diarrhoea is refractory to antiprotozoal treatment and is fatal. Thus, the findings of this study are significant to human health.