

CANINE PARASITIC ZOONOSES IN BANGKOK TEMPLES

Tawin Inpankaew¹, Rebecca Traub², RC Andrew Thompson³ and Yaowalark Sukthana^{4,5}

¹Department of Parasitology, Faculty of Veterinary Medicine, Kasetsart University, Bangkok, Thailand; ² School of Veterinary Science, University of Queensland, St Lucia, Queensland, Australia; ³WHO Collaborating Center for the Molecular Epidemiology of Parasitic Infections, School of Veterinary and Biomedical Sciences, Murdoch University, Murdoch, Australia; ⁴Faculty of Tropical Medicine, Mahidol University, Bangkok, Thailand; ⁵International College, Mahidol University, Bangkok, Thailand

Abstract. Fecal samples were collected from 204 humans and 229 dogs from 20 different temples in Bangkok, as well as communities in the surrounding temple ground areas. Human and dog stool samples were examined for intestinal parasites including *Giardia* using zinc sulfate flotation and microscopy. Hookworms were the most common parasite in dogs (58.1%) followed by *Trichuris* (20.5%), *Isospora* (10%), *Giardia* (7.9%), *Toxocara* (7.4%), *Dipylidium caninum* (4.4%) and *Spirometra* (3.1%). *Blastocystis hominis* (5.9%) was the most common parasite in humans followed by hookworms (3.4%), *Giardia* (2.5%), *Strongyloides* (2%) and *Cryptosporidium* (1.5%). All samples microscopy-positive for *Giardia* were genotyped. The majority of *Giardia* isolated from the dog population was placed in Assemblage A, followed by Assemblages D, B and C, respectively, while human isolates were placed in Assemblages A and B. Therefore, dogs in temple communities posed a potential zoonotic risk to humans for transmission of hookworms, *Giardia* (especially Assemblage A genotypes) and *Toxocara canis*.

Correspondence: Tawin Inpankaew, Department of Parasitology, Faculty of Veterinary Medicine, Kasetsart University, Bangkok 10900, Thailand.
Tel/Fax: 66 (0) 2942-8438
E-mail: fvettwi@ku.ac.th, fvettwi@gmail.com