420/D

Prevalence of Paramphistomiasis in buffaloes reared in a farm and a village house in Matara District

H H T Malkanthi[1] and M P K S K De Silva[1]*
Department of Zoology, University of Ruhuna, Matara

Paramphistomiasis is a disease found in Sri Lanka's large ruminants husbandry, which cause economic losses by mortality, reduced growth rates and working capacity, low milk production and low productivity. According to the veterinary office, Department of Animal Production and Health, Paramphistomiasis is commonly found among buffaloes in the Matara district. The present study focused on the study of the prevalence of Paramphistomiasis in two selected sites in the Matara district; a semi-intensive farm situated in a suburban area of Matara and the other site in a village area where buffaloes are managed by extensive farming. Objectives of the study were, to compare the total prevalence of paramphistomiasis between farm reared buffaloes and buffaloes reared in the village; to compare the prevalence of the disease among age groups within each site and between sites; and to determine whether there is a relationship between the prevalence of the disease and the intermediate host population (snail) density and frequency.

Faecal samples of fifty-one farm reared buffaloes and thirty-nine of village reared buffaloes were examined by sedimentation technique. EPG values (eggs per gram) and infection prevalence were obtained. Snail sampling was carried out in grazing and drinking areas of buffaloes in both sites by a belt transect method using a 30 cm^2 quadrate. All the snail species obtained from sampling sites were identified using standard keys, and number of *Indoplanorbis* (intermediate host) in each quadrate was counted and their density and frequency determined.

Overall EPG values of the two rearing systems were not significantly different ($P = 0.438$). With the exception of the 1-3 y age groups ($P = 0.01$) between the two rearing systems, there was no significant difference between EPG in age groups in the two sites. Considering the EPG values among age groups, within a site, significant differences were found only between age groups 1-3 y and 3-5 y in both rearing systems (farm reared buffaloes, $P = 0.015$ and village house reared buffaloes, $P = 0.003$). Overall infection prevalence in farm reared buffaloes and village reared buffaloes were 70.6% and 92.3%, respectively. Infection prevalence was significantly different ($P<0.05$) among age groups between sites while no significant difference ($P>0.05$) was found among age groups within the same site. There were no significant differences of molluscan density between the

two sites (P= 0.110). A significant difference of molluscan frequency found between the two sites (P=0.025) resulted in a higher prevalence paramphistomiasis in village reared buffaloes.

*kumududs@zoo.ruh.ac.lk Tel: 041-4390198