

IDENTIFICATION OF AMPHISTOMES IN NEAT CATTLE IN THE KANDY SLAUGHTERHOUSE

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The adult amphistomes (rumen flukes) may not be pathogenic to ruminants except in severe infection. But the developing larvae in the small intestine cause high mortality in ruminants, particularly in the young, a condition called immature paramphistomosis. This study was carried out to identify and classify amphistomes found in the rumen of neat cattle during a six month period. Amphistomes were collected from rumen of 50 infected cattle, brought from several parts of the country, to the Kandy slaughterhouse. A total of 6573 digenetic flukes were collected. Specimens were fixed in 70% alcohol and stained using Aceto Alum Carmine. Slide mounted specimens were used for studying the internal and external structures. Amphistomes were identified using taxonomic keys. The structure and the position of the acetabulum, reproductive organs, caeca, ventral pouch and the shape and size of the fluke were used in the identification.

Nine different types of amphistomes representing two families namely Gastrothylacidae and Paramphistomidae were identified. The genera *Gastrothylax*, *Fischoederius* and an unidentified genus (GNI-1) represented the Family Gastrothylacidae while *Paramphistomum*, *Cotylophoron*, *Calicophoron*, *Explanatum* and two unidentified genera (PNI-1, PNI-2) belonged to the Family Paramphistomidae. 92% of the rumens sampled were heavily infected with amphistomes of the Family Gastrothylacidae. These flukes were found in large patches in the rumen while those of the Family Paramphistomidae were found in smaller numbers and were more uniformly distributed in the rumen. The members of the Family Paramphistomidae were found in 64% of the rumens sampled. The total number of flukes per rumen varied from 50 - 1000 in Family Gastrothylacidae and 10-500 in Family Paramphistomidae. Some rumens were infested with members of one family while others with both families. The highest prevalence of 38% was recorded from the genus GNI-1 and the lowest of 1% was from the genus PNI-2. The prevalence values of the genera *Gastrothylax*, *Explanatum*, *Fischoederius*, *Paramphistomum*, *Cotylophoron*, *Calicophoron*, and PNI-1 were 34%, 26%, 20%, 20%, 8%, 4% and 4% respectively. The checklist of amphistomes of Sri Lanka includes five of the six amphistomes recorded during this study. The genus *Cotylophoron* recorded in this study is not reported in the checklist. This study highlights the need to carry out more investigations on the amphistomes in cattle.