

Evaluation of the Beneficial Nematode *Phasmarhabditis Hermaphrodita* in the Control of *Biomphalaria Pfeifferi*.

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Abstract

Schistosomiasis has, for many decades, been among the top ten causes of hospital admissions in endemic areas, an indication of its public health importance. The use of alternative biological methods targeting the vector snail offers an opportunity and avenue in a situation where the only safe efficacious drug praziquantel, may one day be compromised by parasite resistance. The objective of this study was to evaluate the potential of the naturally occurring beneficial nematodes (EPNs) *Phasmarhabditis hermaphrodita* trade name Slugtech[®] in the control of fresh water snails *Biomphalaria pfeifferi* and to determine its efficacy in-vitro. This was done by exposing the snails to Slugtech[®] and assessing the mortality within 28 days of application. The number of dead snails after this period was analyzed and the efficacy of Slugtech[®] determined. Data obtained showed a mean mortality rate of up to 70% with the Slugtech[®] treatment. Emergence of the EPN from the dead snails was noted 16 days after infection. *B. pfeifferi* showed susceptibility to *P. hermaphrodita*. There is a potential for these EPNs to be used as a biological control agent in a schistosomiasis control programme.

Key words: Schistosomiasis, Slugtech[®] , *Biomphalaria pfeifferi*

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