Lymnaeid snails (Mollusca, Gastropoda) as intermediate hosts of Fasciola hepatica (Trematoda, Digenea) in North of Ecuador

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Fascioliasis, one of the main diseases of ruminants, is caused by the liver fluke Fasciola hepatica. This worldwide distributed disease occasionally affects humans and produces an important economic impact on livestock due to reduced weight gain, lowered fertility and abortion, progressive decrease in milk production, as well as liver condemnation. The annual losses are estimated to be US$ 2.2 million, with over 600 million animals infected worldwide. In Ecuador prevalence of F. hepatica in livestock remains uncertain because most of the data is collected by sanitary inspectors from slaughter houses. The Andean region is the endemic area of fascioliasis, where prevalence of infection in livestock ranges from 20 to 60% and in humans from 24 to 53%. This region is inhabited by 23.6 and 52.9% of the total and rural population, respectively; almost 200,000 people are infected and 1% is at risk of infection. Despite fascioliasis being a serious health problem in the country, very little is known about snails of the genus Lymnaea, the intermediate hosts responsible for F. hepatica transmission. Fasciola hepatica needs a lymnaeid snail as intermediate host to complete its life cycle. Some of the lymnaeid species occurring in Andean countries are as follows: L. truncatula Müller, 1774 from Bolivian highlands and Venezuela; L. columella Say, 1817 from Venezuela and north of Ecuador; L. cubensis Peiffer, 1839 from Venezuela and L. cousini Jousseaume, 1887. L. cousini has been found in Ecuador, Colombia and Venezuela.

Biography

Angel Fabian Villavicencio Abril has completed his PhD at the Peoples Friendship University of Russia. He teaches Parasitology, Tropical Animal Medicine, Zoonosis at Universidad de las Fuerzas Armadas-ESPE, Ecuador. He has published 7 papers and is a Member of the Editorial Board of several scientific journals in Ecuador. His research is focused on liver fluke parasitic Fasciola hepatica, snails and epidemiology in Ecuador highlands.

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