

Molluscicidal action of *Ficus benjamina* leaves in the control of the schistosomiasis vector

Andrea Teles dos REIS¹, Carla Fernanda do Carmo SILVA¹, Raynara Fernanda Silva SOARES¹, João Gustavo Mendes RODRIGUES¹, Ranielly Araújo NOGUEIRA², Guilherme Silva MIRANDA³, Nêuton Silva SOUZA⁴

1 - Curso de Ciências Biológicas, Universidade Estadual do Maranhão – UEMA Campus Paulo VI; at.reis@outlook.com;

2 - Programa de Pós Graduação: Ciências da Saúde, Universidade Federal do Maranhão – UFMA;

3 - Programa de Pós Graduação: Parasitologia, Universidade Federal de Minas Gerais – UFMG;

4 - Professor adjunto I/ Departamento de Química e Biologia, Universidade Estadual do Maranhão – UEMA Campus Paulo VI.

Schistosomiasis is a parasitic disease of great importance for public health. In Brazil, it is caused by trematode *Schistosoma mansoni*, which requires the presence of mollusks *Biomphalaria* spp., and humans to develop. One way of combating the populations of these vectors is through natural molluscicides derived from plant extracts. Thus, the objective of this study was to evaluate the molluscicidal activity of the crude extract of *Ficus benjamina* leaves in *Biomphalaria glabrata* from the municipality of São Bento, Maranhão state. The leaves of *F. benjamina* were collected (at São Bento), cleaned and fragmented for specific identification and preparation of the crude extract. The exsicata was deposited in the herbarium “Rosa Mochel” of the State University of Maranhão, nº4269. The molluscicidal activity test was performed using a hydroalcoholic extract of *F. benjamina* leaves at concentrations of 50, 100, 150 and 200 ppm. To verify the significance of the results, the Mann-Whitney test was used ($p < 0.05$). According to the tests, The mortality rates for each concentration of the extract were: 40% (50 ppm), 50% (100 ppm). However, there were no statistically significant differences between the control and test groups in relation to mollusk mortality ($p < 0.05$). Thus, the hydroalcoholic extract of *F. benjamina* presented low molluscicidal activity in São Bento snails, based on the parameters established by the World Health Organization. Some factors may explain the low molluscicidal activity of the plant: sample collection, extraction form and type of solvent used to extract extracts, resistance of snails, environmental and climatic factors. Thus, further studies will be conducted in order to improve the extraction of a greater amount of secondary metabolites of this plant, for a more effective extract is obtained.

Palavras chave: *Biomphalaria*, Vegetable extract, Fig tree.