

## Assessment of the Susceptibility of Populations of *Biomphalaria straminea* (Dunker, 1848) from the state of São Paulo to infection by *Schistosoma mansoni* Sambon, 1907.

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### Resumo

In Brazil, the increase of schistosomiasis is due to human migration from endemic areas to regions where the molluscs are intermediate hosts. Associated with this phenomenon are the inadequate basic sanitation conditions, which allow the contamination of water collections. Three species of planorbid are natural vectors of *S. mansoni* in Brazil: *Biomphalaria glabrata*, *B. tenagophila* and *B. straminea*. In the state of São Paulo, *B. tenagophila* is the main species to host the parasite.

Keywords: Schistosomiasis, *Schistosoma mansoni*, *Biomphalaria straminea*.

### Introdução

*B. straminea*, one of the planorbid species to be an intermediate host of *S. mansoni*, presents a huge geographical expansion in the national territory due to ornamental fish farming and colonization of freshwater. In this study, we plan to evaluate the infectivity rate of populations of *B. straminea* from the state of São Paulo to infection by different strains of *S. mansoni*.

### Resultados e Discussão

Initially, specimens of *B. straminea* from Tremembé (SP) were exposed individually to 5 miracidia of *S. mansoni* of BH (Belo Horizonte, Minas Gerais), SJ (São José dos Campos, SP) and SJS (strain of São José dos Campos, SP, obtained from molluscs genetically selected for susceptibility). After 30 days from the date of exposure, the molluscs were examined for verification of elimination of cercariae. Only molluscs exposed to the SJS lineage showed elimination of cercariae and the infection rate was 5%. The prepatent period was of 7 weeks. The molluscs exposed to the BH and SJ strains did not eliminate cercariae.

Table – Infectivity rate of *B. straminea* from Tremembé (SP) to BH, SJ and SJS strains of *S. mansoni*.

Strain of <i>S. mansoni</i>	N	Molluscs	Infectivity rate (%)	Mortality rate (%)
BH	20	0	0	0
SJ	20	0	0	30
SJS	20	1	5	25

### Conclusões

The results are relevant to the epidemiology of schistosomiasis in the state of São Paulo to demonstrate that the specimens of *B. straminea* from Tremembé (SP) are susceptible to *S. mansoni*.

### Agradecimentos

To Pontifícia Universidade Católica de Campinas