

Freshwater mollusks as hosts of larval trematodes from a metropolitan region of Maranhão state, Brazil

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Some mollusks belong of several biological cycles of trematodes, being considered as vectors of several diseases. In Maranhão state, malacological studies are scarce and only destined for vectors of the schistosomiasis. However, other mollusks may be acting as parasite vectors. In this way, the objective of this study was to verify the biodiversity of freshwater mollusks and their larvae of trematodes from a metropolitan region of Maranhão state. Mollusks were collected during the period from november 2014 to june 2015, at four collection points (P1-P4) in the municipality of São Luís. In the laboratory, these mollusks were identified by morphological external and internal parameters. For verification of the elimination of trematode larvae, all gastropods were exposed to light and heat for four hours. For a period of 12 hours, these same gastropods were left in the dark room. Illustrated taxonomic keys were used to classify the larvae of trematodes. The monthly data of rainfall of the municipality of São Luís (MA) were obtained through the Proclima website. Through this variable it was possible to perform statistical calculations of Pearson correlation using the GraphPad Prism 6 program ($p < 0.05$). A total of 4112 limnic mollusks were collected, classified as: *Biomphalaria* spp. Preston, 1910 (Gastropoda: Planorbidae) (87.57%), *Pomacea* sp. Perry, 1810 (Gastropoda: Ampullariidae) (7.91%), *Physa* sp. Draparnaud, 1801 (Gastropoda: Physidae) (3.41%) and *Drepanotrema* sp. Crosse & Fischer, 1880 (Gastropoda: Planorbidae) (1.11%). The most representative was *Biomphalaria* sp.: *B. glabrata* Say, 1818 (62.86%) and *B. straminea* Dunker, 1848 (24.71%). The helminth fauna was represented by two larvae of trematodes: xifidiocercaria that emerged from *Pomacea* sp. and *Physa* sp., after being left in the dark room and *Schistosoma mansoni*, which were obtained from the exposure of *B. glabrata* to light and heat. There was a positive and significant correlation in relation to pluviometry and the number of mollusks ($p < 0.05$). According to these data, the occurrence of xifidiocercaria represents the first report for the metropolitan region of Maranhão state.

Keywords: biodiversity, gastropods, helminth.