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### TITLE

MALACOLOGICAL SURVEY AND OCCURRENCE OF TREMATODE LARVAE IN SANTANA DO IPANEMA, SERTÃO DE ALAGOAS, BRAZIL

# AUTHORS

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## ABSTRACT

Introduction: In Brasil, studies for identifying trematode larvae began with the discovery Cercaria blanchardi, the infective form of Schistosoma mansoni. Following this discovery, various types of cercariae were reported by Brazilian scientist Adolpho Lutz and subsequently by other researchers. Objective: To assess the occurrence and diversity of trematode larvae in mollusks collected in Santana do Ipanema, Alagoas, Brazil. METHODS: Limnic mollusks were collected in the urban area of the mentioned municipality at 13 collection points: Monte Vera (P1), exit to Poco (P2), Beach street (right and left side - P3 and P4), São Cristóvão (P5), IFAL (P6), Uneal stream (P7), Bode stream (P8), Frog stream (P9), Camoxinga stream (three distinct points - P10, P11, and P12), Ipanema River (P13). The collection was performed using gloves, forceps, malacological shells, and universal collectors, with a sampling effort of 20 minutes per point. Subsequently, the animals were taken to the Parasitology and Malacology Laboratory of the State University of Alagoas (Campus II), where they were sorted and separated by species. The live animals were analyzed for positivity for trematode larvae. For this analysis, the mollusks were subjected to photo-stimulation for a period of two hours and then examined under a stereomicroscope using 2x and 4x magnifications. This procedure was repeated weekly for four weeks to evaluate the elimination of trematode larvae. Results: In total, 586 live animals were collected, from the species Biomphalaria straminea (540 animals), Melanoides tuberculatus (43 animals), Pomacea lineata (2 animals), and Drepanotrema depressissimum (1 animal). Of the 13 points, only locations P7 and P8 had animals positive for trematode larvae. Among the collected species, positivity for cercariae of the Armata group was observed in 1 out of 540 animals of the species B. straminea, representing 0.18% positivity (P7). In location, P8, 5 out of 43 specimens of the species M. tuberculatus tested positive for two different types of cercariae. One of these animals tested positive for Centrocestus formosanus (pleurolofocerca), representing 2.32% positivity, while the other animals (9.30% positivity) tested positive for a type of cercaria not yet identified by us. Conclusion: This study showed that even with few animals in an environment, there is a possibility of positivity for larvae that affect human health, as in the case of the cercaria Pleurolofocerca, which is part of the larval phase of the parasite C. formosanus, whose infection occurs through the ingestion of raw or undercooked fish. This finding highlights the importance of reporting the types of larvae that may exist in spaces frequented by the population for fishing and leisure activities.

#### **KEYWORDS**

Cercariae; Mollusks; Public Health.

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