

Biological and parasitological data of *Latipes erinaceus* (Gastropoda: Veronicellidae) a potential host of the nematodes *Angiostrongylus cantonensis* and *Angiostrongylus costaricensis* in Brasil

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Veronicellids are considered to be important intermediate hosts of the nematode *Angiostrongylus costaricensis*, etiological agent of human abdominal angiostrongyliasis, and there are also reports of specimens infected with *A. cantonensis*, which causes the zoonosis eosinophilic meningitis. In this study, we present original data on the biology of *Latipes erinaceus*, a terrestrial slug present in southern and southeastern Brasil, where it was recently reported as a pest of vegetables. Observations of the breeding of the species are presented under laboratory conditions, from June 2015 to February 2017. Two adult specimens (G₀) of *L. erinaceus* from Itatiaia, RJ, were used in the experiments in addition to their offspring born in the laboratory, G₁ and G₂, which were kept in pairs (G₁) or grouped (G₂). The parasitological data presented here refer to experimental infections (G₁ and G₂) with *A. costaricensis* and *A. cantonensis* with 3 different parasitic loads (2000, 3000 and 4000 L₁). After 20 days of infection the molluscs were submitted to artificial digestion and the larvae obtained were counted. L₂ and L₃ larvae were recovered, demonstrating that both parasites are capable of developing in *L. erinaceus*. However, despite the high parasitic load used in infections, few larvae were recovered (*A. costaricensis* = 2.5 ± 1.3%, *A. cantonensis* = 1,8 ± 1,4%). There was no mortality in either group and the number of larvae recovered from *A. costaricensis* was greater than that of *A. cantonensis*. The larvae of *A. costaricensis* were predominantly L₃, while those of *A. cantonensis* were mainly L₂. Considering the biological data, 1 to 4 spawnings per month were recorded, with a higher number of eggs from April to July (4 spawns per month). The sexual maturity occurred between 4 and 9 months of age (sampling of 8 pairs of G₁, and 8 pairs with descendants of a single spawning of G₂, grouped). Grouped individuals became mature earlier (5 months) than those in double (7.5 months). In a random sample of 25 spawns, the mean spawning diameter was 18.65 mm and the height was 13.96 mm. The number of eggs ranged from 16 to 133 (mean of 56 eggs per spawning). The mean length and width of the eggs were 5.46 and 3.47 mm, respectively (5 eggs measured by spawning). The incubation time had an average of 20 days. On average, 45% of the eggs hatched by spawning. During mating the specimens assumed position in "T", with one specimen acting as female and the other as male. The results obtained demonstrate the high reproductive capacity of *L. erinaceus* compared to other species of the family, possibly one of the reasons to be acting as a pest of vegetables in southern Brasil. Despite the low percentage of larvae recovered from *Angiostrongylus* spp., the fact that this slug is a widespread agricultural pest also makes it a potential transmitter of parasitic diseases of medical interest in Brasil, and its monitoring should be recommended mainly in areas endemic to the aforementioned zoonosis.