

New Occurrence of *Braga patagonica* (Isopoda: Cymothoidae) in the Eastern Amazon: Morphology, Parasitism, and Distribution

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Ectoparasitic isopods, despite their small size, are intriguing due to their remarkable adaptation to parasitic life and the diverse effects they exert on their host organisms. These organisms can be susceptible to ectoparasites, such as isopod crustaceans. This study reports the presence of the isopod *Braga patagonica* parasitizing *Hoplias malabaricus* in the state of Maranhão, located in the Eastern Amazon, Brazil. Isopod specimens were collected from the fish body in two sampling periods conducted between 2021 and 2022 and identified using dichotomous keys based on morphological analyses and parasite measurements. Additionally, parasitological indices were calculated, including prevalence rate (P%), mean intensity (MI), and parasite abundance (PA). A total of 25 parasites, including both females and males, were found attached to the gill cavity, tegument, and near the pectoral and pelvic fins. During the first sampling period, the hosts exhibited a prevalence rate of 100%, with MI and PA values of 1.0 ± 0.00 , whereas in the second sampling period, the prevalence rate decreased to 66.67%, with MI of 0.06 ± 0.04 and PA of 0.04 ± 0.29 . Females were larger, measuring approximately 2.09 cm in length and 1.09 cm in width, while males reached 1.96 cm in length and 0.86 cm in width, and exhibited a lighter coloration compared to females in both sampling periods. *B. patagonica* has been previously reported in the major rivers of the Amazon basin, particularly in northern Brazil, with low prevalence in fish from natural environments, found in various native fish species such as *Serrasalmus* spp., *Colossoma macropomum*, *Pygocentrus nattereri*, and *Hoplias malabaricus*. This study establishes a new geographical record of *Braga patagonica* in the state of Maranhão, in the northeastern region of Brazil. The findings provide valuable insights into the distribution of the Cymothoidae family in the Eastern Amazon.

Keywords: Fish parasites, Isopoda, Crustacea

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