

## ***Probopyrus bithynis* (Crustacea: Probopyridae) in *Macrobrachium amazonicum* (Crustacea: Palaemonidae) from the lower Amazon River (Brazil)**

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*Macrobrachium amazonicum* is widely distributed in South America, occurring in the Orinoco, Amazon and Paraguay rivers basin. This shrimp is an important source of animal protein for riverine population food in Brazilian Amazon. It is a host for other crustacean species, which infest its gill cavity. This study aimed to report the occurrence of *Probopyrus bithynis* in *M. amazonicum* from the lower Amazon River, northern Brazil. In July 2016, 140 specimens of *M. amazonicum* were collected in the lower Amazon River, near the community of Igarapé Novo, municipality of Itaubal, in state of Amapá (Brazil). The shrimp were caught with the aid of matapi that were submerged for a period of 24 h in water. After this collect, the parasitized shrimp were quantified and fixed in ethyl alcohol (70%) for 24 h, and preserved in ethyl alcohol (70%) glycerin (10%) for analysis. A total of 284 specimens of *P. bithynis* were collected of *M. amazonicum* ( $\bar{x} = 81.0 \pm 2.3$  cm e  $\bar{x} = 4.1 \pm 2.3$  g). For these hosts, it was observed that 60% of the individuals were females, and 40% were males. Of these hosts, 97.9% presented one side of the gill cavity parasitized; however, in 2.1% of the shrimp was observed the presence of *P. bithynis* on both sides of the gill cavity. *Probopyrus bithynis* was found in pair (i.e a male and a female) in hosts, and therefore 142 females were females and 142 males were collected; in addition, the males were found adhered to uropod of the females. *Probopyrus bithynis*, an exclusive parasite of shrimp, has been also reported infecting *M. amazonicum* from other regions from the Brazil, but this study extended its distribution also to the lower Amazon River. Although the parasitism, the factor of condition of the hosts ( $K_n = 1.02 \pm 1.1$ ) was not different ( $t = 0.162$ ;  $p = 0.871$ ) of standard value ( $K_n = 1.00$ ). *Probopyrus* species can cause physiological alteration in their hosts, which can decrease their growth rate and cause castration. Therefore, *Probopyrus* species can influence the community of *M. amazonicum*, causing a decrease in the recruitment of individuals with size for fishing. In addition, they may directly affect the trade of *M. amazonicum*, as they cause some disgust to consumer.

**Key words:** Shrimp, Decapoda, Isopoda, Ectoparasite