Morphology and biology of litter-inhabiting *Buchananiella indica* Muraleedharan (Hemiptera: Anthocoridae)

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**ABSTRACT:** The life history, biological parameters and predatory potential of litter inhabiting *Buchananiella indica* Muraleedharan (Hemiptera: Anthocoridae) have been investigated. The adult, egg and immature stages of this anthocorid are described with live images. *Buchananiella indica* is amenable to continuous rearing on eggs of *Corcyra cephalonica* Stainton (Lepidoptera: Pyralidae) and the anthocorid was continuously reared for 20 generations. Fertility studies indicated that the reproductive rate is 12.6 and the finite rate of increase 1.08.

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**KEYWORDS:** Anthocorid, biology, *Buchananiella indica*, diagnostic characters, predatory potential, rearing

**INTRODUCTION**

Muraleedharan and Ananthakrishnan (1974) described some species of anthocorids including *Buchananiella* from India. *Buchananiella* Reuter 1884 is a relatively small taxon coming under the tribe Dufouriellini consisting of ten described species (Yamada and Yasunaga, 2009). The members of this taxon are distributed in the tropics and sub-tropics, except for *Buchananiella continua* (White), which is a pantropical species, quite widely reported in western Palaearctic zone (Kirby, 1999). *Buchananiella indica* Muraleedharan was described based on the material collected in Garo Hills, Meghalaya (Muraleedharan, 1977). In India, the known *Buchananiella* include *B. indica*, *B. garoensis* Muraleedharan, *B. crassicornis* Carayon, *B. carayoni* Muraleedharan and Ananthakrishnan, and *B. pseudococci pseudococci* Wagner. In general, little information is available on the biology and ecology of species of *Buchananiella*.

In the present paper, we present the morphological characteristics of the egg, immature and adult stages of *B. indica*. *Buchananiella indica* is sometimes confused with other taxa such as *Amphiareus*. *Buchananiella indica* and *Amphiareus constrictus* (Stål) were the two litter inhabiting anthocorids which were most commonly recorded and both were amenable to rearing. Hence, we have also reported some distinguishing characters which can be used to separate the two. Different species of *Buchananiella* generally inhabit either leaf litter or decaying plant material. However, Yamada et al. (2008) recorded *Buchananiella pseudococci pseudococci* (Wagner) (as *Cardiastethus pseudococci pseudococci* - transferred to *B. pseudococci pseudococci* by Ghahari et al., 2009) from Kerala as a predator of coconut black-headed