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Food and nymph stage duration influence life table parameters of the predator

Brontocoris tabidus (Heteroptera: Pentatomidae)

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Abstract

Food type is important for mass rearing of *Brontocoris tabidus* (Signoret) (Heteroptera: Pentatomidae), which preys on Lepidoptera defoliators in eucalyptus plantations. The objective of this study was to evaluate the duration of nymph instars, reproduction and the life expectancy table of the predator *B. tabidus* fed with or without *Eucalyptus cloeziana* plants and *Tenebrio molitor* Linnaeus (Coleoptera: Tenebrionidae) in the field. *Brontocoris tabidus* females were separated into those with short (a) or long (b) instar durations. Life expectancy (ex) of *B. tabidus* females from nymphs with short stage duration, reared on *E. cloeziana* with prey was higher than those from long nymph stage with or without plant material. Feeding on plant material and/or prey changes life table parameters for the predator *B. tabidus*. Therefore, *B. tabidus* should be reared with prey and *E. cloeziana* to improve the mass production of this predator for biological control of defoliating caterpillars in eucalypt plantations.

Keywords: Asopinae, biological control, life tables, mass rearing, predator

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