DOES THE MIMETIC POSTURE OF MACARIA AEMULATARIA (WALKER) (GEOMETRIDAE) LARVAE ENHANCE SURVIVAL AGAINST BIRD PREDATION?

Additional key words: predator-prey interaction, defense, behavior, caterpillar

Mimicry, in which one organism resembles another, is a widespread and important phenomenon in behavioral ecology (Wickler 1968; Ruxton et al. 2004). Mimesis, or the mimicry of inanimate objects such as twigs, leaves, bird droppings, the odor of plants, and so on, is also well known (Cott 1940; Edmunds 1974; Akino et al. 2004). Mimicry may include changes in morphological (e.g., hairs and spines) and behavioral traits, chemistry, and ecology, all aimed at enhancing escape and/or survival from predation (Edmunds 1974; Endler 1986). However, tests of the effectiveness of different forms of mimicry or mimesis, as anti-predator (sensu latu) defenses, are less common (but see Portugal & Trigo 2005). In this study we experimentally evaluated the survival advantage of the mimetic posture of larvae of Macaria aemulataria (Walker) (Geometridae) against a visually hunting predator, the tufted titmouse, Baeolophus bicolor (Paridae).

Macaria aemulataria has four instars and all are mimetic of leaf parts. Small instars tend to mimic the