

## Research Note

# New record of *Nesidiocoris tenuis* (Reuter) (Hemiptera: Miridae) associated with *Bemisia tabaci* Gennadius (Hemiptera: Aleyrodidae) on tomato from Maharashtra, India

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**ABSTRACT:** *Nesidiocoris tenuis* Reuter (Hemiptera: Miridae) associated with *Bemisia tabaci* Gennadius on tomato is recorded for the first time from Maharashtra, India. A minor to moderate level of the predator population was observed during the survey.

**KEY WORDS:** *Nesidiocoris tenuis*, *Bemisia tabaci*, tomato

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*Bemisia tabaci* Gennadius is considered as one of the most harmful pest of tomato, besides its direct damage on the plant, it appears to be a vector of plant viruses (Gerling *et al.*, 2001; Calvo, 2009). *Nesidiocoris tenuis* Reuter (Hemiptera: Miridae) is a polyphagous predator widely distributed in the tropical and subtropical areas. This species is known to be a predator of different species of whiteflies and also other insect pests (Sanchez and Lacasa, 2008; Calvo, *et al.*, 2009). *Nesidiocoris tenuis* naturally colonizes tomato crop and can substantially contribute to the control of whiteflies (Sanchez, 2008). However, in the absence of prey, it can turn phytophagous is reported as a pest on sesame (Ahirwar *et al.*, 2009), tobacco (Patel, 1980), bottle gourd, tomatoes and cucurbits (Patel, 1980; Reddy and Kumar, 2004).

*Nesidiocoris* was recorded for the first time preda-ting on *B. tabaci* in Maharashtra, India. In the present study, a survey was carried out during October-November 2013, to study population density of predator and prey in Latur, Killari, Renapur, Chakur, Vishnupuri and Nanded areas of Maharashtra. The data was collected counting the whitefly adults and *N. tenuis* on randomly chosen three leaves, each from upper, middle and lower canopy of ten randomly selected plants. (Sangha *et al.*, 1995; Sood, 2002)

Analysis of the collected data showed that the mean population density of *B. tabaci* on tomato was 14, 16, 12, 10, 2.07 and 3.7 per ten plants in Latur, Killari, Renapur, Chakur, Vishnupuri and Nanded areas respectively, while that of *N. tenuis* was 16, 21, 17, 12, 5, 6 bugs per 10 plants in respective locations (Fig.1).

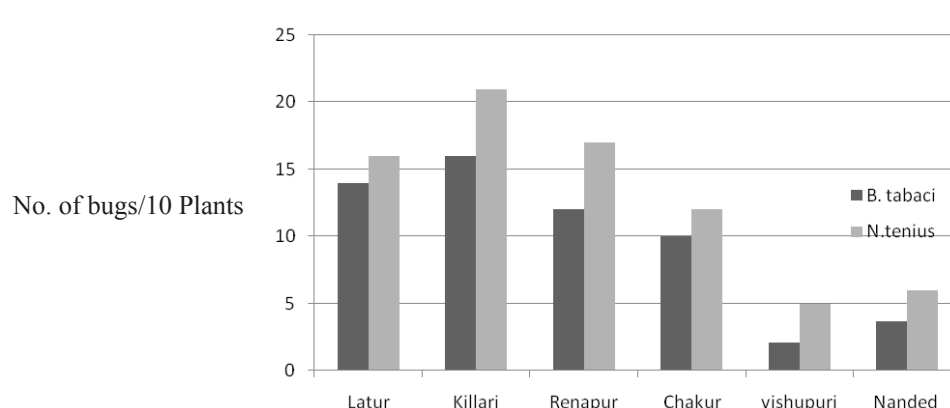


Fig. 1. Density of *Nesidiocoris tenuis* and *Bemisia tabaci* during November 2013

*Nesidiocoris tenuis* can be a promising candidate for the biological control of *B. tabaci* in green houses and open field conditions in India. This predator has been reported to control whiteflies effectively in the greenhouse in Spain (Calvo *et al.*, 2009; Gonzatez-Cabreta *et al.*, 2011). In Spain, the *N. tenuis* was released on tomato plant nurseries to control whiteflies in more than 3000 ha of commercial greenhouses during the tomato growing season of 2011 (Urbaneja *et al.*, 2012). The present report is an important piece of information in developing a bio-intensive strategy for the management of the *B. tabaci*. However, further studies are required to investigate its predatory potential, effective predator: prey ratio and mass production techniques in India.

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