

## Additions to the natural enemy complex of the red hairy caterpillar, Amsacta albistriga (Walker) (Lepidoptera: Arctiidae)

K. VEENAKUMARI, S. RAMANI and R. J. RABINDRA

Project Directorate of Biological Control, Post Bag No. 2491, Bellary Road, Hebbal, Bangalore – 560024, Karnataka, India. E-mail: veenapmraj@rediffmail.com

**ABSTRACT:** Three species of Tachinidae, namely, *Blepharipa zebina* (Walker), *Exorista xanthaspis* (Wiedemann) and *Carcelia* sp., were found parasitising the larvae of *Amsacta albistriga* (Walker) in Pavagada taluk, Tumkur district, Karnataka. In addition to these parasites, two predators, *viz., Rhynocoris* sp. (Hemiptera: Reduviidae) and *Anthia sexguttata* (F.) (Coleoptera: Carabidae) were also found predating on these caterpillars.

**KEY WORDS**: Amsacta albistriga, Anthia sexguttata, Blepharipa zebina, Carcelia sp., Exorista xanthaspis, Rhynocoris sp., natural enemies

Amsacta albistriga (Walker), a polyphagous pest occurring in the three southern states of India, viz., Karnataka, Tamil Nadu and Andhra Pradesh, is a serious pest causing severe damage to crops like groundnut, sunflower, sesame, cotton, cowpea, etc. Several control measures such as use of bonfires for adults, hand picking and destruction of larvae, poison baiting and pesticide application are employed for controlling this pest, but respite from this pest is far from reach. Qaium (1997) estimated the damage to the crop to be anywhere between 25 and 100 per cent depending on the severity of the outbreak. During the course of our work on the evaluation of nucleopolyhedrovirus for managing this pest, we identified several natural enemies attacking this pest in nature.

Gunathilagaraj and Babu (1987) reported several natural enemies on this pest including two species of *Apanteles* parasitising the larvae. During our studies also, we found two species of *Apanteles*  (species not identified) parasitising the second generation (October-November) of the red hairy caterpillar in Pavagada taluk in November 2006. Parasitism as high as 72.37% was observed during this period. An egg parasitoid, *Telenomus manolus* Nixon (Sundaramurthy *et al.*, 1976) and *Enicospilus* sp., a larval-pupal parasitoid (Veenakumari *et al.*, 2004) are the other two hymenopterous parasitoids that are known to attack this pest.

In addition to these, three tachinid parasitoids, *Blepharipa zebina* (Walker), *Exorista xanthaspis* (Wiedemann) and *Carcelia* sp., were also found parasitising the larvae of the red hairy caterpillar. Per cent parasitism by these tachinids was 12.3. This is the first report of these three tachinid parasitoids on red hairy caterpillar larvae. Earlier, Gunathilagaraj and Babu (1987) reported two tachinid parasitoids, *Sturmia inconspicuella* and *Exorista civiloides*, attacking this pest. *Eocanthecona furcellata* (Wolff) (Hemiptera: Pentatomidae) was the only predator so far known to attack this pest (David and Basheer, 1961). We now report two more predators, *viz.*, *Rhynocoris* sp. (Reduviidae) and *Anthia sexguttata* (Carabidae) occurring naturally in groundnut fields and feeding on the larvae of *A. albistriga*. The relative efficacy of these macrobials as natural regulators of *A. albistriga* populations, however, remains to be studied.

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## REFERENCES

David, B. V. and Basheer, M. 1961. Mass occurrence of the predatory stink bug *Cantheconidea*  (Canthecona) furcellata (Wolff) on Amsacta albistriga Walk. in South India. Journal of Bombay Natural History Society, 58: 817-819.

- Gunathilagaraj, K. and Babu, P. C. S. 1987. Amsacta albistriga Walker on groundnut and other crops. FAO Plant Protection Bulletin, 35: 63-64.
- Qaium, M. A.1997. Caterpillars and ducks. *ILEIA Newsletter*, p17.
- Sundaramurthy, V. T., Jayaraj, S. and Swamiappan, M. 1976. *Telenomus manolus* Nixon, a potential egg parasite of groundnut hairy caterpillar, *Amsacta albistriga*. *Current Science*, **45**: 775.
- Veenakumari, K., Rabindra, R. J., Srinivasa Naik, C. D. and Shubha, M. R. 2004. First record of *Enicospilus* Stephens (Hymenoptera: Ichneumonidae) as a parasitoid of *Amsacta al bistriga* (Walker) (Lepidoptera: Arctiidae) from Karnataka, India. *Insect Environment*, 9: 151.

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