

## Record of *Dolichogenidea stantoni* (Ashmead) (Hymenoptera: Braconidae), a larval parasitoid of pumpkin caterpillar, *Diaphania indica* (Saunders) (Lepidoptera: Pyralidae)

A. KRISHNAMOORTHY, N. RAMA and M. MANI

Division of Entomology & Nematology Indian Institute of Horticultural Research Hessaraghatta Lake Post, Bangalore 560089, Karnataka, India E-mail: akmurthy@iihr.res.in

**ABSTRACT:** A new gregarious braconid endoparasitoid, *Dolichogenidea stantoni* was recorded from larvae of *Diaphania indica* infesting cucurbits in and around Bangalore. Peak parasitism was observed in the months of June and October 2003. A mean parasitism of  $37.26\pm4.01$  per cent was observed. Each parasitized larva produced a mean of  $16.32\pm1.86$  cocoons. The per cent emergence of adult was 82.23. The sex-ratio under field condition was more of female biased (1: 4.20).

KEY WORDS: Cucurbits, development, Diaphania indica, Dolichogenidea stantoni, sex-ratio

Diaphania indica (Saunders) is a major leaf feeder of cucurbitaceous crops. During severe infestation, it also attacks cucumber fruits. A survey was done in and around Bangalore during 2002-2003 to collect natural enemies of this pest. Larvae of *D. indica* were collected from cucumber, ridge gourd and watermelon fields and reared in the laboratory for emergence of natural enemies, if any.

A gregarious braconid parasitoid collected from the field was identified as *Dolichogenidea stantoni* (Ashmead). Several natural enemies have been reported from *D. indica* by earlier workers (Peter and David, 1990a & b, 1991, 1992a & b). Another gregarious braconid parasitoid, *Apanteles taragamae* Viereck, was reported from *D. indica* (Peter and David, 1992a). *D. stantoni* has been reported earlier as a pupal parasitoid of Crocidolomia pavanana Fabricius (Men and Kandalkar, 2000). This is the first record of D. stantoni from D. indica.

Data on the level of parasitism, number of parasitoid emerged from each parasitized larva and per cent adult emergence was recorded from the parasitized larvae obtained from the field. The level of parasitism of *D. indica* larvae under field conditions ranged from 11.54 to 61.90 per cent during January–October 2003 with a mean of  $37.26\pm4.01$ per cent. Peak parasitism was observed in the months of June and October 2003. Each parasitized larva of *D. indica* yielded 10-32 cocoons with a mean of  $16.32\pm1.86$  cocoons and a mean of  $13.42\pm2.02$  adults. The per cent emergence of adult was 82.23. The sex-ratio under field condition was female biased (1: 4.20).

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## REFERENCES

- Men, U. B. and Kandalkar, H. G. 2000. Record of Apanteles stantoni Ashmead (Hymenoptera: Braconidae), a pupal parasitoid of mustard leaf Webber, Crocidolomia pavonana Fabricius (Lepidoptera: Pyralidae). Insect Environment, 6: 131-132.
- Peter, C. and David, B. V. 1990a. Biology of *Elasmus* brevicornis Gahan (Hymenoptera: Elasmidae), a parasite of the pumpkin caterpillar, *Diaphania* indica (Saunders) (Lepidoptera: Pyraustidae). Entomon, **15**: 165-169.

Peter, C. and David, B. V. 1990b. Biology of Apanteles

*machaeralis* Wilkinson (Hymenoptera: Braconidae), a parasite of *Diaphania indica* (Saunders) (Lepidoptera: Pyralidae). *Proceedings of the Indian Academy of Sciences, Animal Sciences*, **99**: 353-362.

- Peter, C. and David, B. V. 1991. Observations on the oviposition behaviour of *Goniozus sensorius* (Hymenoptera: Bethylidae), a parasite of *Diaphania indica* (Lepidoptera: Pyralidae). *Entomophaga*, 36: 403-407.
- Peter, C. and David, B. V. 1992a. Biology of *Apanteles* taragamae Viereck (Hymenoptera: Braconidae), a parasitoid of *Diaphania indica* (Saunders) (Lepidoptera: Pyralidae). Insect Science and its Application, **13**: 7-17.
- Peter, C. and David, B. V. 1992b. Biology of *Phanerotoma hendecasisella* (Hymenoptera: Braconidae), a parasitoid of *Diaphania indica* (Lepidoptera: Pyralidae). *Entomophaga*, 37: 3-9.