



Salad cucumber, *Cucumis sativus* L.: A new host record for *Apomecyna saltator* (Fab.) (Coleoptera, Cerambycidae)

P. Sreeja^{1*} and Sainamol P. Kurian²

¹Department of Agricultural Entomology, College of Agriculture, Kerala Agricultural University, Vellanikkara, Thrissur 680654, Kerala, India.

²Department of Plant Pathology, College of Agriculture, Kerala Agricultural University, Padannakkad 671314, Kerala, India.

Email: sreeja.p@kau.in

ABSTRACT: Cucurbit longicorn *Apomecyna saltator* (Fab) (Coleoptera, Cerambycidae) is an economically important pest of cucurbitaceous vegetables. Salad cucumber, *Cucumis sativus* L. grown in a polyhouse in Thrissur, Kerala, India was found infested by *A. saltator*. This is the first report of *C. sativus* as a new host plant for *A. saltator* in India. The grub is an internal feeder and causes damage by tunnelling the vines. A brief note on the nature of damage and symptoms are given.

© 2023 Association for Advancement of Entomology

KEY WORDS: Longicorn, vine borer, first report, damage, symptoms

Pointed gourd vine borer or cucurbit longicorn *Apomecyna saltator* (Fabricius, 1781) (Coleoptera, Cerambycidae) is an economically important pest on many cucurbitaceous vegetables viz., ivy gourd (*Coccinia indica* L.), pumpkin (*Cucurbita mohaeta* L.), bottle gourd (*Lagenaria vulgaris* L.), ridge gourd (*Luffa acutangula* L.), sponge gourd (*L. aegyptiea* L.) snake gourd (*Trichosanthes cucumerina* L.), and pointed gourd (*T. dioica* L.) (Biswas and Basak, 1992; Singh *et al.*, 2008). The incidence of cucurbit longicorn has now been recorded for the first time on salad cucumber grown in polyhouse in Kerala, India, as reported here.

Salad cucumber grown in polyhouse (200 m²) of the Department of Plant Pathology, College of Agriculture, Vellanikkara, KAU exhibited wilting and drying symptoms in 10 per cent of the plants.

The withered vines were collected in polybags and were brought to the laboratory of the Department of Agricultural Entomology, for further studies. Vines were observed for the presence of internal feeders if any and those with immature stages were kept for observation in individual glass jars (15×20×10 cm³) at ambient room temperature (24–32°C). Adults that emerged were killed and preserved as dry specimens by mounting them on the entomological pin. The pinned specimens were subjected to taxonomic studies under Carl Zeiss Stereo Zoom (Stemi 305) microscope and photographed using Axiocam 105 color attached with the Zeiss image analyzer and the morphological characters were studied. Ten male and female specimens were used for recording the average length of the beetle. The insect was identified on the basis of the taxonomic key to the Indian species

* Author for correspondence

of the genus *Apomecyna* (Biswas and Basak, 1992).

The cerambycid causing damage to salad cucumber is identified as *A. saltator* Fabricius, 1781. Adults are small (10.0 mm), brown with long antennae measuring 6.95 mm hardly extending up to the middle of the elytra. Elytra elongate, clothed with densely yellowish pubescence, with white irregular spots. Elytral spots together form oblique bands arranged in three evenly V-shaped markings across the elytra. The first band appears between the middle and base of the elytra, the second one appears in the middle of the elytral disc, and the third band, is comprised of four spots which lie close to the elytral apex (Plate I A). The full-grown grubs are cream colored with brown heads. The full-grown larvae pupated within the larval tunnels in fibrous cocoons. The pupa is exarate and brownish in colour. Adult beetle remained in the larval tunnel for 2-3 days after emergence (Plate 1C). Adults emerged by biting their way out of the stem and were less active and remained in hidden places on dried leaves and vines (Plate I C, D). Adults were not found feeding in the field however, they were found gnawing the stem and leaf petioles under laboratory conditions.

The initial symptom, exhibited on the basal portion

of the main vines, was reddish brown ooze at the point of infestation (Plate II A). At the advanced stage of infestation, swellings were observed at the nodal region of the vines due to tunneling by the grubs (Plate II B). Feeding tunnels were directed towards nodes that were filled with glutinous waste material. Severe infestation led to the splitting, withering, and drying of vines (Plate II C,D). Moreover, damage led to early senescence of the crop eventually leading to reduction in yield.

Cucurbit longicorn is reported as an important pest of coccinia in South India (Nair, 1975). Additionally, it had been reported in yam (Palaniswami and Pillai, 1982). Among different species of the genus *Apomecyna*, *A. saltator* is widely distributed in India (Mitra *et al.*, 2016). Though it is reported as a pest of irregular appearance on cucurbits in India, its presence in polyhouse on cucumber is alarming. As adults are carried over to the succeeding crops through dried vines and stubbles, the infestation may lead to peak damage at the reproductive phase of the crop. The present finding is valuable information for adopting precautionary strategies against the incursion of this pest into polyhouse as once the pest invades into the poly house, the warm, humid environment, sustained food supply, and absence of natural enemies will provide conducive conditions for their rapid multiplication (Sreeja *et al.*, 2018).

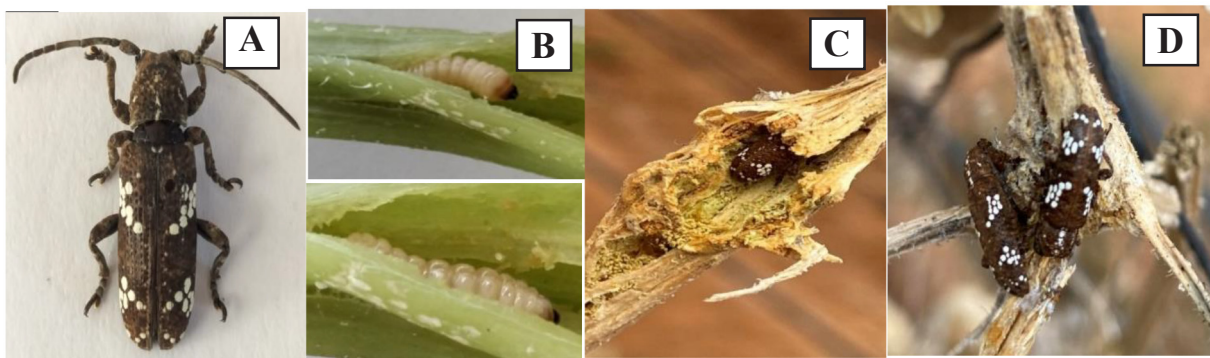


Plate I A. *Apomecyna saltator* (Adult), B. Grub in the larval tunnel, C. Adult in larval tunnel, D. Adults on dried vines

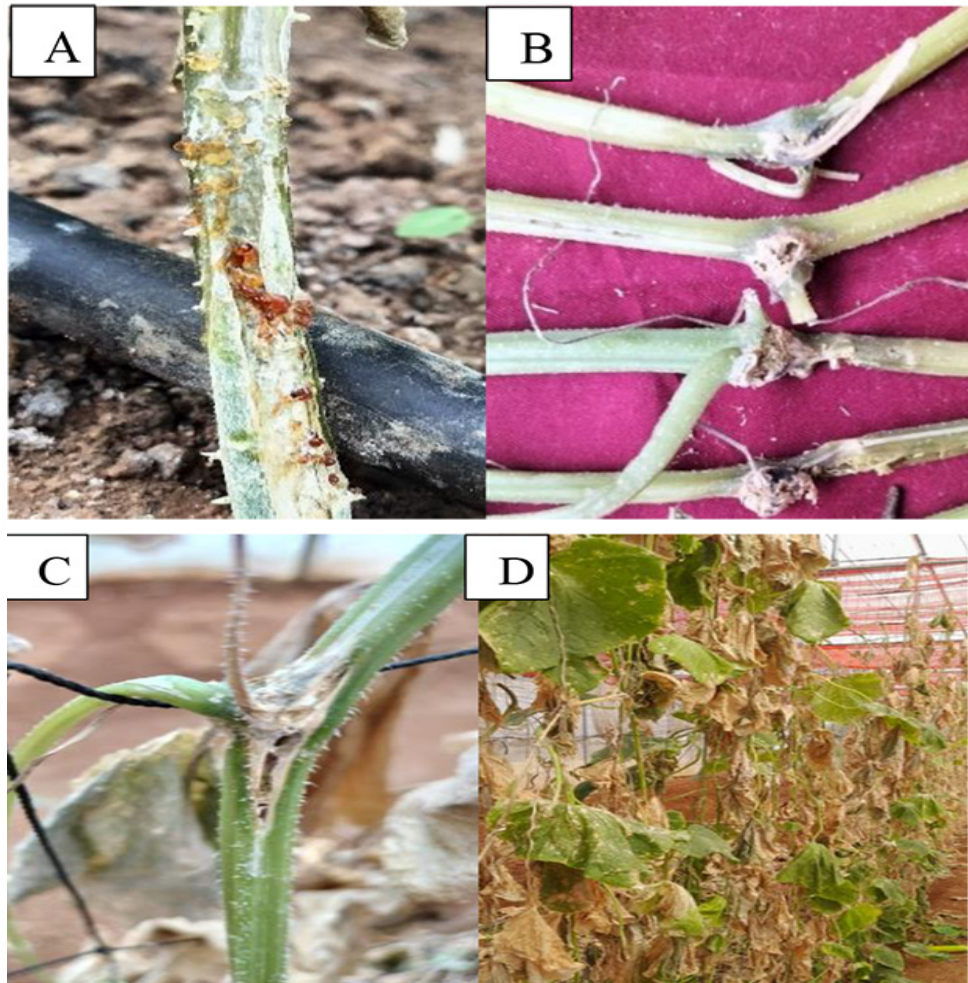


Plate II. A. Gummosis at basal region, B. Swelling in the nodal region, C. Splitting of the vine at nodal region, D. Field view of infestation

ACKNOWLEDGEMENTS

The authors are grateful to Dr. Sangamesh R. Hiremath, Assistant Professor of Agricultural Entomology, School of Agriculture and Biosciences, Karunya Institute of Technology and Sciences, Coimbatore, Tamil Nadu for identification of the pest.

REFERENCES

- Biswas S. and Basak P.K. (1992) Studies on Longicorn Beetles (Coleoptera: Cerambycidae) from India, Part I. On Indian species of *Apomecyna* Latreille with a key to Indian 'Genera of tribe, Apomecynini. Records of the Zoological Survey of India 2(1-4): 161-172.
- Mitra B., Chakraborti U., Biswas O., Roy S., Das P. and Mallick K. (2016) First report of *Apomecyna saltator* Fabricius, 1781 from Sunderban Biosphere Reserve, West Bengal. Entomology and Applied Science Letters 3(2): 29-33.
- Nair M.R.G.K. (1975) Insects and Mites of crops in India. Publication and Information Division, Indian Council of Agricultural Research, New Delhi. 404 pp.
- Palaniswami M.S. and Pillai K.S. (1982) Surveillance of insect and non-insect pests of edible aroids, coleus and yams. In: Annual Report 1981. (Eds Nair R.G. and Nambiar T.A.), ICAR - Central Tuber Crops Research Institute, Thiruvananthapuram, Kerala, India. pp 154-158.

- Singh H.S., Bharathi L.K. Sahoo B. and Naik G. (2008) New record of vine borer (*Apomecyna saltator*) and its differential damage to pointed gourd (*Trichosanthes dioica*) varieties/accessions in Orissa. Indian Journal of Agricultural Sciences 78(9): 813–814
- Sreeja P., Chellappan M. and Anuja R. (2018) Occurrence of polyhouse vegetable pests in Kerala. Annals of Plant Protection Sciences 26(2): 291–295.

(Received October 22, 2022; revised ms accepted December 03, 2022; published March 31, 2023)