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*APHIS GOSSYPHII* GLOVER (INSECTA : HOMOPTERA :  
APHIDIDAE), A NEW PEST OF BETEL VINE IN  
WEST BENGAL, INDIA

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INTRODUCTION

*Aphis gossypii* Glover (Homoptera), known as cotton aphid, is the commonest aphid in India. The species is remarkable for its colour variation and extreme polyphagism depending upon the seasonal fluctuation in population and also physiological condition of host plants.

A perusal of literature reveals that *A. gossypii* Glover infests about 459 species of plants belonging to 85 families in India. Besides, it has also been recorded on undetermined plants belonging to 20 plant families. *A. gossypii* shows the highest degree of polyphagism among Aphididae in India.

During the course of survey for the aphid fauna in and around Calcutta, the authors came across *A. gossypii* infesting the under surfaces of leaves of the betel vine plant (*Piper betle* : Family : *Piperaceae*), one of the important crops in the village areas and the major source of income for some people.

Although aphid fauna is thoroughly explored, no species was found attacking this, important crop until Joshi and Mathur (1967) reported *Aphis gossypii* Glover infesting it from Western India (Rajasthan).

The present finding is, therefore, of interest since it constitutes a new host record from West Bengal in North-East India. Its occurrence on *Piper betle* in other parts of the country is yet to be ascertained.

*Material examined* : Many apterous and alate viviparous females and numerous apterous and alatoid nymphs from *Piper betle*, India : West Bengal, Biraballavpara, 24 Parganas, 25.iii.1985, Coll. L. K. Ghosh.

*Biological notes* : The aphids are found to infest heavily the under surface of the leaves. As a result, the leaves gradually fade out and finally dry up. The ants *Solenopsis geminata* (Fabr.) and *Sima rufonigra* Mays were found in association with the aphids.

*Measurements (in mm) of apterous viviparous female* : Length of body 1.4-1.6 ; width of body 0.80-1.0 ; antenna 1.0-1.32 ; antennal segment III 0.20-0.25, IV 0.17-0.19, V 0.14-0.16. VI (0.10+0.22-0.28) ; ultimate rostral segment 0.12 ; second joint of hind tarsus 0.10 ; siphunculus 0.30-0.33 ; cauda 0.14-0.16.

*Measurements (in mm) of alate viviparous female* : Length of body 1.1-1.5 ; width of body 0.80-0.90 ; antenna 0.80-0.90 ; antennal segment III 0.14-0.15, IV 0.13-0.14, V 0.14-0.15, VI (0.10+0.20-0.25) ; ultimate rostral segment 0.10 ; second joint of hind tarsus 0.10 ; siphunculus 0.18-0.20 cauda ; 0.17-0.19.

*Distribution* : INDIA : Through plains and hills.

ELSEWHERE : Cosmopolitan.

#### SUMMARY

*Aphis gossypii* Glover infests 459 species in 275 genera of plants belonging to 85 families in India. It proves to be the highest polyphagous species of Aphididae in India. The occurrence of the aphid on the plant *Piper betle* (Family : Piperaceae) is hitherto not recorded from Northeast India. Biological notes on infestation and measurements are provided.

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## REFERENCE

- JOSHI, H. C. & MATHUR, Y. K., 1967. Notes on the aphids of Rajasthan. *Madras agric. J.*, 24(4) : 239-243.