

SCIENTIFIC NOTE

CLITOSTETHUS ARCUATUS (ROSSI) (COLEOPTERA: COCCINELLIDAE), A NEW RECORDED PREDATOR SPECIES, OF THE CITRUS WHITEFLY, DIALEURODES CITRI (ASHM.) (HOMOPTERA: ALEYRODIDAE) IN EGYPT

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Most of the predators are polyphagous species. However, certain species are monophagous or oligophagous. A few more specialized whitefly predators including the tiny lady beetle, *Clitostethus arcuatus* (Rossi) (Fig. 1) are known to have a significant impact on the population of certain whitefly species.

Loi (1978) reported that Rossi first described the genus *Clitostethus* as *Scymnus* in 1794 and as *Clitostethus* by Wise in 1885. *C. arcuatus* was recorded as an effective predator of aleyrodids in the Mediterranean region (Gerling 1990). The predator was imported from Israel to the USA (California) in 1989 as part of a broader program to introduce natural enemies against the pomegranate whitefly, *Siphoninus phyllyrae* Haliday (University of California, UC IPM Publication 19, 1995).

The predator species, *C. arcuatus* was recorded for the first time in Egypt among the natural enemies of the citrus whitefly, *Dialeurodes citri* (Ashm.) at Kafr El-Sheikh Governorate in 1992 - 94; comprising 42 % of the total number of associated predators (Mesbah 1998). W. Witsack of Martin-Luther University, Zoology Institute, Halle identified the predator species. The reference used for identification was Freude, H., Harde, K.W. and G. A. Lohse (1967), The Beetles of Middle-Europe, vol. 7.

Ecological, morphological and biological studies on the coccinellid predator were carried out (Mesbah 1998).

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Fig. (1): Adult of the predator *Clitostethus arcuatus* (Rossi)

REFERENCES

- Gerling, D. 1990. Whiteflies: their bionomics, pest status and management. Intercept Ltd., Andover, U. K.
- Loi, G. 1978. Observation eco-etologiche sul coleottero coccinellidae scimmino, *Clitostethus arcuatus* (Rossi), predatore die *Dialeurodes citri* (Ashm.) in Toscana. Frust. Entom. 1, 123 – 145.
- Mesbah, A. H. 1998. Studies on certain natural enemies of the whiteflies. Ph. D. Thesis, Dept. of Econ. Entomolgy, Faculty of Agriculture, Kafr El Sheikh Tanta University. (Unpublished data).
- UC IPM Publication. Whiteflies in California: A Resource for Cooperative Extension. University of California, 19, July 1995.