

**SHORT NOTE**

**EXTENDED RANGE OF *Craspedoxantha indica* Zaka-ur-Rab,  
(DIPTERA: TEPHRITIDAE) TO KARNATAKA, SOUTH INDIA**

**ABRAHAM VERGHESE, MAHIBA HELEN, P.D. KAMALA JAYANTHI  
and M.S. UMA**

Department of Entomology and Nematology,  
Indian Institute of Horticultural Research, Hesaraghatta, Bengaluru –560089  
avergis@ihr.ernet.in

India is known to have about 200 fruit fly species, most of which are of low economic importance (Vergheese *et al.*, 2002). The pestilent genera are *Bactrocera*, *Dacus* and *Carpomyia*. The distribution of most fruit flies are not adequately known. Therefore, this report is deemed of academic value.

In one of the sweep net surveys for adult fruit flies as part of a regular surveillance, in the orchards of Indian Institute of Horticultural Research campus at Bangalore, Karnataka, South India, during January 2007 an unfamiliar fruit fly species was collected and sent to the Entomology Department of University of Agricultural Sciences, Bangalore where it was identified as *Craspedoxantha indica* Zaka-ur-Rab (Figs. 1&2).

Literature survey indicated that it has been reported in India from Madhya Pradesh and Uttar Pradesh; elsewhere it has been recorded in Pakistan (Agarwal and Sueyoshi, 2005). This fruit fly was first described by Zaka-Ur-Rab in 1960 based on one male fly collected from Aligarh (Uttar Pradesh, India). He collected an adult male from the leaves of *Xanthium strumarium* (Compositae) in 1959, though this cannot be attributed as the host. The genus *Craspedoxantha* Bezzi of tribe Terelliini includes nine species of which seven species are Afrotropical, and two are Oriental (Amnon Freidberg, 1985).

Host records available are all within the family Asteraceae or Compositae. Attempts to obtain maggots of *C. indica* in a range of plant species in these two families proved to be unsuccessful.

This species resembles *Craspedoxantha octopunctata* Bezzi in that it has eight black spots on the thorax, with similar wing pattern (Zaka-ur-Rab, 1960). The characters of male *Craspedoxantha indica* such as coloration of the body, head, thorax and abdomen; is clearly described by Zaka-Ur-Rab 1960. It differs from *Craspedoxantha octopunctata* Bezzi by lacking a yellow band along vein CuA<sub>1</sub> in the wing. The aculeus of *C. indica* is relatively narrower and more pointed than that of *C. octopunctata*, and the epandrium has a different shape. However, the aedeagus of *C. indica* is very similar to that of *C. octopunctata*, indicating close affinity between these species (Amnon Freidberg, 1985). It is more similar to *C. yaromi* sp.n., which has an almost identical wing pattern. However, these two species can be separated by their terminalia.

Collection of *C. indica* in Karnataka shows that this fruit fly's range of distribution extends at least up to Karnataka in South India. Though this is economically not important, its range of distribution will be of interest in biodiversity and other ecological studies.



Fig 1 : *C. indica* – Adult female



Fig 2 : *C. indica* – Adult female-thorax dorsal view

### ACKNOWLEDGEMENTS

We are grateful to Professor C. A. Viraktamath and Mr. David, Biosystematics Network, Division of Entomology, University of Agricultural Sciences, GKVK, Bangalore- 560 065, India for taxonomic identification and for digital imaging facilities of the specimen. This was part of the National Fruit Fly Surveillance Programme was funded by DAC, New Delhi, Plant Protection and Quarantine Faridabad and APEDA.

### REFERENCES

Agarwal, M.L. and Sueyoshi, M. 2005. Catalogue of Indian Fruit flies (Diptera: Tephritidae). *Oriental Insects*, **39**: 371-433.

Amnon Freidberg, 1985. The genus *Craspedoxantha* Bezzi (Diptera:Tephritidae: Terelliinae). *Ann.Natal. Mus.* 27(1): 183-206.

Vergheese, A., H. S. Madhura, P. D. Kamala Jayanthi and John M. Stonehouse, 2002. "Fruit flies of economic significance in India with special reference to *Bactrocera dorsalis* (Hendel)". Paper presented at the sixth International Symposium on fruit flies of economic importance, Stellenbosch, South Africa, 6 to 10 May, 2002

Zaka-Ur-Rab, M. 1960. A new species of the genus *Craspedoxantha* Bezzi. 1913, from India (Diptera: Trypetidae). *Journal of Bombay Natural History Society*, **57**(3): 683-686.