



A new species of *Hemipteroseius* (Acari: Otopheidomenidae) parasitic on *Dysdercus* (Hemiptera: Pyrrhocoridae) in India

PRATIBHA MENON¹, SUSHILA JOSHI¹, MOHAMMAD HUSSAIN² & V.V. RAMAMURTHY¹

¹Network Project on Insect Biosystematics, Division of Entomology, Indian Agricultural Research Institute, New Delhi, India 110012.
E-mail: pratibharish@gmail.com (Menon), sushilajoshi@gmail.com (Joshi), vvr3@vsnl.com (Ramamurthy)

²Department of Zoology, Center of Advanced Study, Banaras Hindu University, Varanasi, India 221005

Abstract

A new species of ectoparasitic mite, *Hemipteroseius vikrami* n. sp. (Mesostigmata: Otopheidomenidae), collected on *Dysdercus koenigii* (Fabricius) in New Delhi and *D. cingulatus* (Fabricius) in Varanasi, India is described. It is distinguished from other species of the genus in having the dorsal shield divided, podonotal shield with nine pairs and opisthonotal shield with four pairs of setae; setae j6, s6 and Z5 with bulbose/spatulate tips; tritosternum with two short slightly barbed lacinae; venter with four pairs of sternal setae, one pair on the sternal shield and three pairs placed posterolaterally; anus terminal; one pair of preanal setae; movable digit of chelicera with two teeth distally; macrosetae on genu I–IV and femur I–II with bulbose/spatulate tip. A list of species of Otopheidomenidae with details of distribution and hosts, key to species of *Hemipteroseius* and comparison of morphological characters of species are also provided.

Key words: Mesostigmata, ectoparasite, Hemiptera, Pyrrhocoridae, checklist, India

Introduction

Mites of the family Otopheidomenidae (Acari: Mesostigmata) are ectoparasites of insects, primarily Hemiptera, Orthoptera and Lepidoptera. The family Otopheidomenidae was erected by Treat (1955) for *Otopheidomenis zalelestes* Treat, collected from beneath the tegulae and in the metascutellar regions of a moth of the genus *Zale* Hubner. Krantz & Khot (1962) reviewed the family and recognised two new genera, namely, *Dicrocheles* Krantz & Khot for *Myrmonyssus phalaenodectes* Treat (1954) and *Treatia* Krantz & Khot for *Treatia indica* and *Laelaptonyssus phytoseioides* Baker & Johnston (1959). Evans (1963) revised the concept of the family with reference to external morphology and specialisation in chaetotaxy associated with the parasitic mode of life. In his key to genera he dealt with *Otopheidomenis* Treat, *Treatia*, and *Hemipteroseius* Evans. He described two new species, *Treatia dysderci* and *Hemipteroseius womersleyi* and proposed the combination *H. indicus* for *Treatia indica* Krantz & Khot (1962). However, he did not consider *Dicrocheles* Krantz & Khot in his key because it was more similar to Laelapidae than to Phytoseiidae. Chant (1965), in his generic revision of the family Phytoseiidae, included Otopheidomenidae as a subfamily and added another genus, *Entomoseius* Chant, with *Treatia dysderci* Evans (1963) as its type species, and provided a key to the four genera recognised under the subfamily Otopheidomeninae.

Chant & Lindquist (1965) modified the key to genera in this subfamily to include the genus and species, *Nabiseius duplicisetus*. Treat (1965) and Costa (1968) described five new species of *Hemipteroseius* (four and one respectively) under Otopheidomenidae. Prasad (1968) described the genus and species, *Noctuisseius treati*, in the Otopheidomeninae, but later (1970b) moved it into *Otopheidomenis*. Treat (1969) reviewed the behavioural relationship between *Dicrocheles* species and their moth hosts. Wainstein (1972), in his revisionary account of the family, synonymised *Entomoseius* and *Hemipteroseius* with *Treatia*, erected the subfamily Treatiinae under Phytoseiidae for *Treatia* and *Nabiseius* Chant & Lindquist, revived *Noctuisseius treati* Prasad, and proposed a new genus *Prasadiseius* to incorporate *O. cocytes* Prasad (1970a), *O. donahuei* Prasad (1970a), *O. kayosiekeri* Prasad (1970b) and *O. pholusis* Prasad (1970b). He proposed that the family Otopheidomenidae included only three genera, *Otopheidomenis*, *Prasadiseius*, and *Noctuisseius*. Ramsay (1973) tabulated 17 species in the subfamily Otop-