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Research Note

First record of *Microserangium* Miyatake (Coleoptera: Coccinellidae) from India, with description of a new species

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ABSTRACT: **The genus *Microserangium* Miyatake (Coccinellidae, Coleoptera) is recorded for the first time in India and *Microserangium brunneonigrum* sp. n. is described from Tamil Nadu.**

KEY WORDS: Coccinellidae, first record, India, *Microserangium*, new species

Microserangium Miyatake (1961) is a small Asiatic genus with five species, reported mainly from southeast Asia. So far, there has been no record of this genus from India. A new species belonging to this genus, found during surveys for coccinellids in south India, is described here.

***Microserangium brunneonigrum* sp. n.**

Length: 1.11-1.17 mm; breadth: 0.93-1.00 mm. Body (Fig.1) small, convex, hemispherical and slightly longer than broad; dorsally dark brown to dark piceous black, shiny; pronotum, sutural line and external borders of elytra darker than rest of body; ventral side lighter castaneous, except antennae, mouth parts and tarsi yellowish brown. Head with compound eyes widely separated by more than twice the eye width and coarsely faceted; frons with few sparse, shallow punctations; antennal emargination deep and very thinly marginated; anterior margins of eyes and clypeal margin pubescent. Mandibles lacking a well-defined prostheca; maxillary palpi with terminal segment barrel shaped, slightly narrowed towards apex. Antenna (Fig. 2) nine-segmented; third segment elongate, subtriangular, fourth to seventh quadrate, eighth transverse, terminal segment enlarged and angular, forming a club. Pronotum sparsely and shallowly punctate, very sparsely setose, hairs in anterior half directed cephalad and hairs in posterior half directed caudad. Scutellum triangular, more or less equilateral, conspicuous. Elytra with very few thin silvery white hairs on basal and lateral margins; punctations sparse and fine on disk and slightly denser and coarser on external borders. Legs with angulate tibiae and trimerous tarsi. Elytral epipleura foveate to receive meso- and metafemoral apices. Abdomen (Fig. 3) with five visible sternites, suture between first and second sternites curved in the middle, posterior margin of last sternite subtruncate in male and arcuate in female. Male genitalia asymmetrical, tegmen (Figs. 4-6) and sipho (Fig. 7) as figured.

Etymology: The species name refers to its dark reddish brown colour, tending towards black.

Specimens examined: Holotype♂, India: Tamil Nadu: Ayyanarkoil, Grizzled Giant squirrel

wildlife sanctuary (Rajapalayam range), 21.vii.99, S. Suresh, feeding on indeterminate whitefly on *Homonoia riparia* Lour. (PDBC). Paratypes four, not sexed, with the same data, but resting on *Ficus hispida*, two each deposited in PDBC and the Natural History Museum, London.

Remarks: This is the second species of this genus to be reported from south Asia. Only *Microserangium laterale* (Motschulsky, 1866) is known from Sri Lanka and south Asia so far. This species, originally described under *Oeneis* Motschulsky (1866), was transferred to *Microserangium* by Nhuan (1977) based on examination of the type. Dr. R. G. Booth, International Institute of Entomology (in litt.) informs that it is not based on a coccinellid. However, Hansen (1998) while clarifying the status of the species of *Oeneis* described by Motschulsky from Sri Lanka, did not contradict Nhuan's conclusion that *Oeneis laterale* (misspelt as *O. lateralis*) was indeed a coccinellid.

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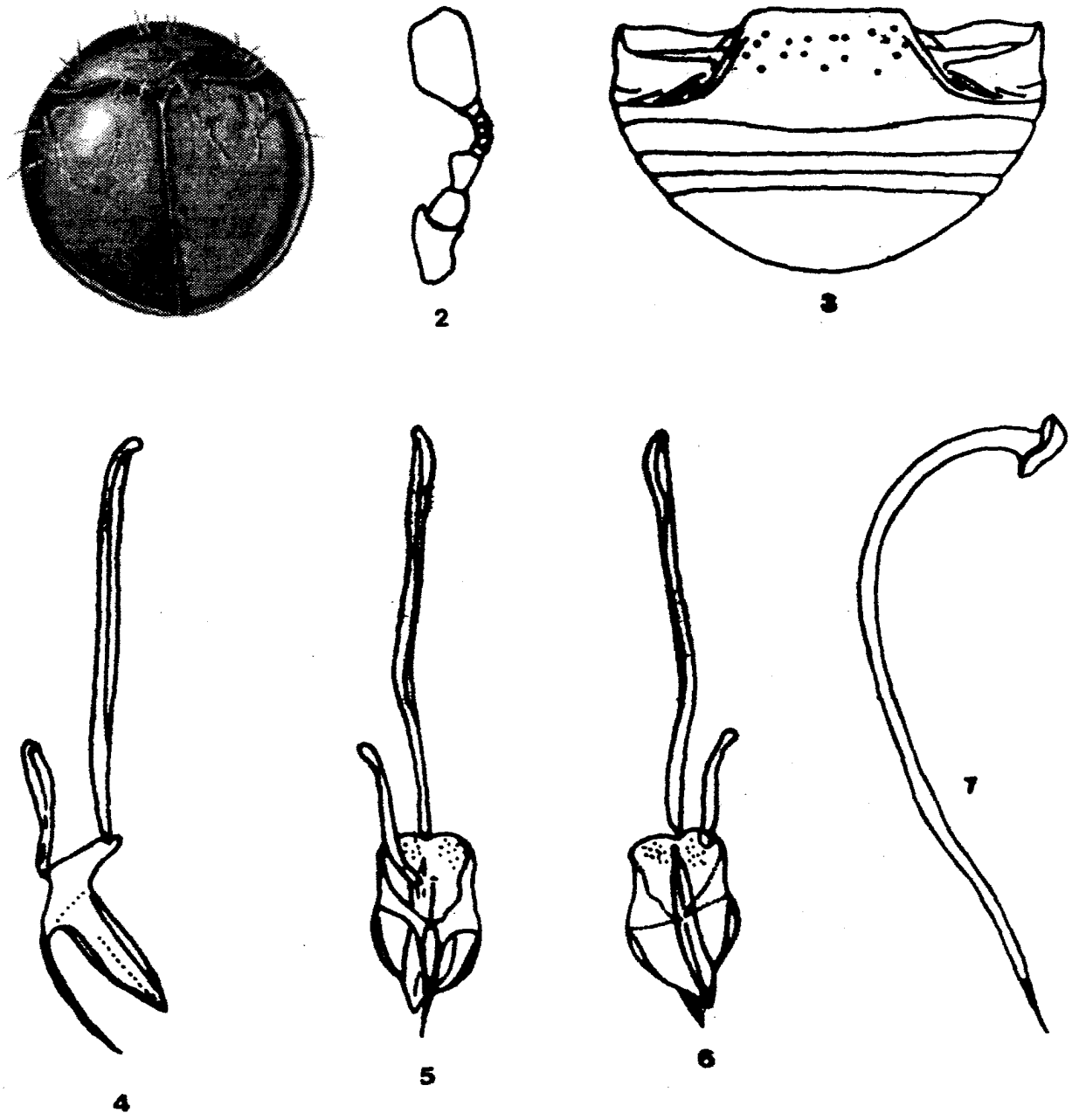

Figs. 1-7. *Microserangium brunneonigrum* sp. n.

1. Habitus, 2. Antenna, 3. Abdomen of male, showing femoral line.
4-6 Male genitalia, Tegmen

4. Dorsal view, 5. Ventral view, 6. Lateral view, 7. Male genitalia, sipho. Scale marker = 0.1 mm.

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Research Note

Occurrence of *Fusarium coccophilum* (Desm.) Wollenw. & Reinking on sugarcane whitefly, *Aleurolobus barodensis* (Maskell) (Homoptera: Aleyrodidae)

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ABSTRACT: ***Fusarium coccophilum*** **(Desm.) Wollenw. & Reinking was recorded as a fungal pathogen of the sugarcane whitefly,** ***Aleurolobus barodensis*** **(Maskell) from Dhule and Pune areas of Maharashtra. The infection level during rainy season varied from 2.2 to 12.8 per cent. Its pathogenicity both to nymphs and pupae was confirmed. This is the first report of** ***F. coccophilum*** **on sugarcane whitefly.**

KEY WORDS: *Aleurolobus barodensis*, fungal pathogen, *Fusarium coccophilum*, sugarcane whitefly

The aleyrodid, *Aleurolobus barodensis* (Maskell) is a key pest of sugarcane grown in waterlogged and ill-drained soils of Navsari and Junagadh areas of Gujarat, Akluj and Dhule districts of Maharashtra, Nizamabad of Andhra Pradesh and Chikmagalur and Shimoga districts of Karnataka. It causes economic losses to the crop by sucking the sap from the leaves and attracts sooty mould, which disturbs normal photosynthesis. In certain parts of Gujarat and Maharashtra, it has attained major pest status, causing severe setback to sugarcane production by causing reduction in yield, juice extraction and quality as well as sugar production (Patil *et al.*, 1992). A number of natural enemies have been recorded on the pest from Gujarat (Patel *et al.*, 1995; Kapadia and Butani, 1997) and Andhra Pradesh (Singh and Varma, 1995). Therefore, it was felt necessary to explore the possibility of presence of new natural enemies (particularly fungal pathogens) and their use as biocontrol agents in the management of *A. barodensis* in peninsular India.

Surveys were undertaken in sugarcane-growing areas around Pune and Dhule in Maharashtra; Vijayawada and Vuyyuru in Andhra Pradesh; and Mandya and Gowribidanur in Karnataka from 1997 to 1999. Leaves of the plants infested with *A. barodensis* were collected along with different stages of natural enemies, if any, and reared in acrylic sheet cages (30 cm^3) having moist sand at the bottom. The pathogens thus obtained were isolated and identified. Total number of healthy and infected whitefly nymphs and pupae were counted on fifteen randomly selected one cm^2 area on each leaf collected and per cent infection was worked out.

Samples of variety CoC 671 and Co 9161 collected from Shirpur, Talaner, Manjarad and Babhalaj areas of Dhule district and Walhe and Jejuri of Pune district revealed the presence of nymphs and pupae infected with a fungal