

Zeitschrift: Mitteilungen der Schweizerischen Entomologischen Gesellschaft =
Bulletin de la Société Entomologique Suisse = Journal of the Swiss
Entomological Society

Band: 59 (1986)

Heft: 3-4

Artikel: Another new species of mealybug genus *Dysmicoccus* Ferris
(Homoptera, Pseudococcidae) from India

Autor: Avasthi, R.K. / Shafee, S. Adam

DOI: <https://doi.org/10.5169/seals-402239>

Nutzungsbedingungen

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. [Siehe Rechtliche Hinweise.](#)

Conditions d'utilisation

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. [Voir Informations légales.](#)

Terms of use

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. [See Legal notice.](#)

Download PDF: 16.10.2024

ETH-Bibliothek Zürich, E-Periodica, <https://www.e-periodica.ch>

Another new species of mealybug genus *Dysmicoccus* FERRIS (Homoptera, Pseudococcidae) from India

R. K. AVASTHI¹ & S. ADAM SHAFEE

Section of Entomology, Department of Zoology, Aligarh Muslim University, Aligarh, India

Dysmicoccus cucurbitae sp. n. is described and illustrated. A key to Indian species of *Dysmicoccus* FERRIS is also given. Material deposited in Zoological Museum, Aligarh Muslim University, Aligarh, India.

Genus *Dysmicoccus* FERRIS

FERRIS, 1950, p. 53, Type-species, *Dactylopius brevipes* COCKERELL.

Recently, AVASTHI & SHAFEE (1981) described a new species *D. williamsi* infesting *Erianthus ravennae* BEAUV. from India. At present this genus *Dysmicoccus* is known to occur with four species (including one new species) in India which are separated by the following key characters.

Key to Indian species of *Dysmicoccus* FERRIS based on adult females

1. Circulus present 2
- Circulus absent 3
2. Cerarii 17 pairs, with a number of slender auxiliary setae; almost all the cerarii with 2 large conical spines; dorsal body setae small and slender (McKenzie 1967, fig. 55) *brevipes* (COCKERELL)
- Cerarii 13–14 pairs, which devoid of auxiliary setae; anal lobe cerarii with 2 large and 2 small conical setae, remaining cerarii anterior to anal lobe with 3–12 spines of variable lengths; dorsal body setae somewhat lanceolate (fig. 1) *cucurbitae* sp. n.
3. Hind coxae and tibia with translucent pores; anal lobe cerarii with 7–8 auxiliary setae, arranged irregularly, cerarii anterior to anal lobe some times with 1 or 2 auxiliary setae; anal ring setae about 1.5 times diameter of ring and one half the length of anal lobe seta; multilocular pores numbering 10–18 around vulva (WILLIAMS, 1970, fig. 7) *carens* WILLIAMS
- Hind coxae and tibia without translucent pores; anal lobe cerarii with 8–12 auxiliary setae, arranged in a ring; cerarii anterior to anal lobe with 3–8 auxiliary setae; anal ring setae about as long as diameter of ring and one third of anal lobe setae; multilocular pores numerous 40–75 around vulva (Avasthi & Shafee 1981, fig. 1) *williamsi* AVASTHI & SHAFEE

¹ Present address: Department of Zoology, Vaish College, Rohtak, India.

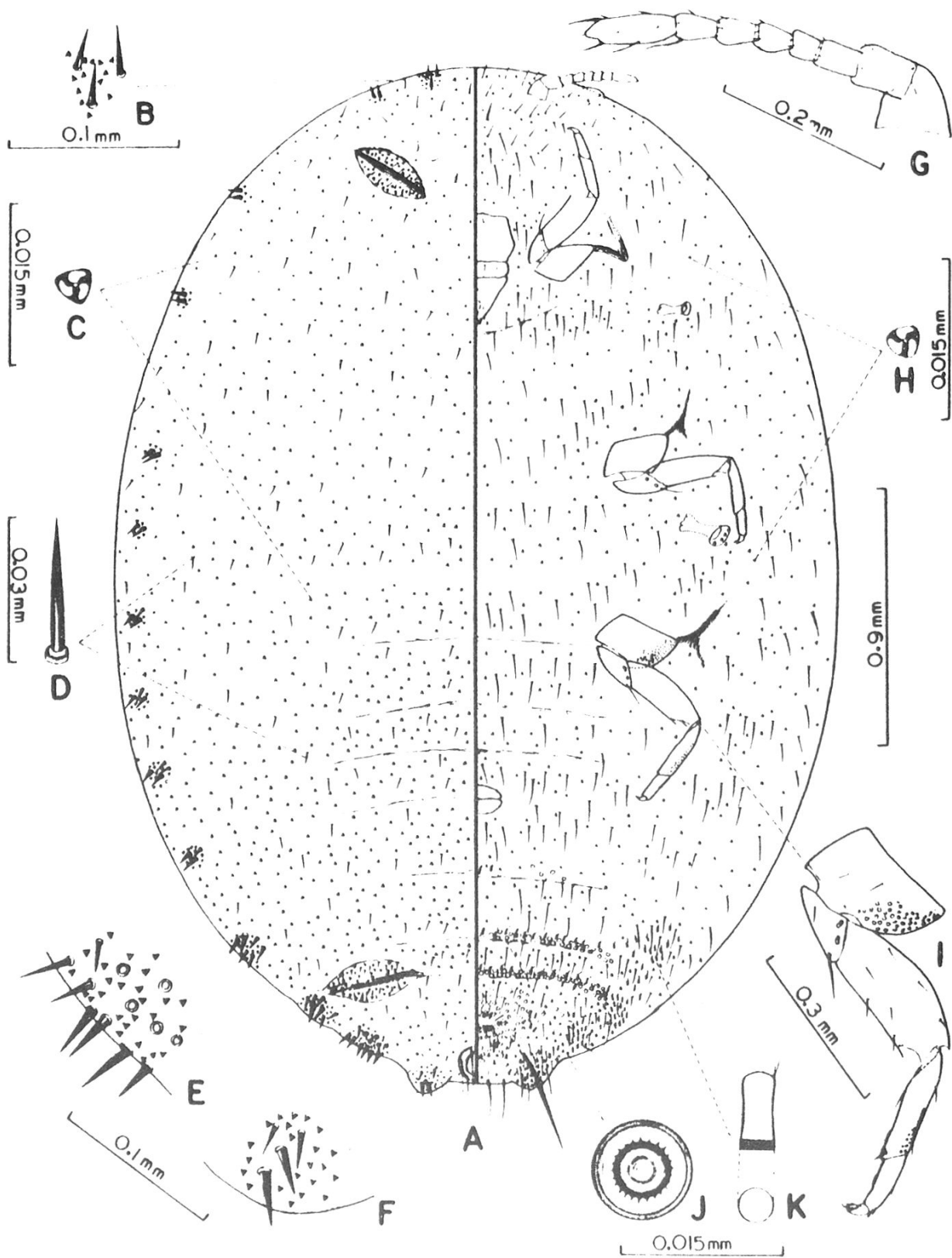


Fig. 1. (A-K). – *Dysmicoccus cucurbitae* sp. n.

Dysmicoccus cucurbitae sp. n.

Adult female

Mounted specimens oval in shape, 3.49 mm in length, 2.51 mm wide; anal lobes well developed. Dorsum with small, somewhat lanceolate setae (fig. 1D) sparsely distributed. Trilocular pores (fig. 1C) numerous, uniformly distributed. Multilocular pores and tubular ducts absent. Ostioles well developed, with slightly sclerotized inner edges of anterior and posterior lips, each with minute setae and trilocular pores. Cerarii 14 pairs; anal lobe cerarii (fig. 1F) with basal area of sclerotization, each with 2 large and 2 small stout conical spines beset with a group of 22 trilocular pores; cerarii anterior to anal lobe on abdominal segments 8th, 7th, 6th, 5th, 4th, 3rd, 2nd with 12, 7, 6, 3, 4, 3,3, stout conical spines of variable lengths respectively; trilocular pores gradually decreasing in number from 30–5 in the abdominal cerarii 8th to 2nd; remaining cerarii each with few trilocular pores and 3 conical spines except ocular (fig. 1B) with 3 conical spines. Anal ring with 6 setae, slightly longer than the greatest diameter of ring.

Venter with numerous hair-like setae of variable lengths; anal lobe with well developed sclerotized bar extending from the base of the anal lobe seta; anal lobe seta more than twice the length of anal ring setae. Trilocular pores (fig. 1H) relatively lesser in number than those on dorsum. Multilocular pores (fig. 1J) numerous around vulva and preceding 3 abdominal segments. Oralcollar tubular ducts (fig. 1K) arranged segmentally and in groups in submarginal areas of the posterior abdominal segments. Eyes well developed, Antennae (fig. 1G) 8-segmented, 0.41 mm in length. Rostrum dimerous. Spiracles normal. Circulus oval in shape. Legs well developed and stout; hind coxae and tibia (fig. 1I) with few translucent pores; hind femur about 1.5 times longer than the width of coxa; claw simple with digitules longer than claw and clubbed at apices; hind legs with trochanter plus femur 0.36 mm, tibia 0.19 mm, and tarsus 0.11 mm in length.

Holotype. ♀. India: Uttar Pradesh, Aligarh on *Cucurbita pepo* L., 7.X.1978 (R. K. AVASTHI).

Paratypes. 14 ♀♀. India: same data as holotype.

Variations. Paratypes differs from holotype as follows: Slide mounted specimens slightly varies in size, 2.8–4.5 mm long, 1.98–3.1 mm wide; 3–7 tubular ducts present on abdominal dorsum in few specimens; cerarii 13–14 pairs; anal lobe cerarii with 2 large and 2–4 small stout conical spines beset with a group of 20–30 trilocular pores; cerarii anterior to anal lobe on abdominal segments 8th, 7th, 6th, with 12–18, 5–8, 6–7 stout conical spines of variable lengths respectively; ocular cerarii with 2–3 conical spines; antennae 0.32–0.48 mm in length; hind leg with trochanter plus femus 0.29–0.39 mm, tibia 0.17–0.23 mm and tarsus 0.09–0.14 mm in length.

Comments. In the key to North American species of *Dysmicoccus* Ferris given by McKenzie (1967) the new species runs close to *D. difficilis* (LOBDELL) but distinctly differs by its having small somewhat lanceolate setae on dorsum, 13–14 pairs of cerarii which are devoid of auxiliary setae, 3–12 spines on cerarii anterior to anal lobe and translucent pores on hind coxae and tibia. Further, the new species differs from all Indian species in having lanceolate setae on dorsum and in the number of spines on cerarii anterior to anal lobe.

ACKNOWLEDGMENTS

We are greatly indebted to the Chairman, Department of Zoology, for providing research facilities. One of us (R. K. AVASTHI) is grateful to C.S.I.R., New Delhi for financial assistance.

LITERATURE

- AVASTHI, R. K. & SHAFEE, S. A. 1981. *A new species of Dymicoccus Ferris (Homoptera: Pseudococcidae) from India*. Systematic Entomology 6: 1-3.
- McKENZIE, H. L. 1967. *Mealy bugs of California with taxonomy, biology and control of North American species (Homoptera : Coccoidea : Pseudococcidae)*. Calif. Univ. Press, Berkely 526 pp.
- WILLIAMS, D. J. 1970. *The mealybugs (Homoptera, Coccoidea, Pseudococcidae) of sugarcane, rice and sorghum*. Bull. ent. Res. 60: 109-188.

(received August 16, 1985)