REICHENBACHIA

Staatliches Museum für Tierkunde Dresden

Band 24 Ausgegeben 20. Mai 1987 Nr. 24

Description of a New Species of *Dysmicoccus* FERRIS from India and Pakistan

(Homoptera, Coccoidea, Pseudococcidae)

With 1 Figure

D. J. WILLIAMS
London

During the last 20 years, the new species of mealybug described here, has been submitted a few times to the Commonwealth Institute of Entomology, London, for identification. It occurs in India and Pakistan, where it has been collected by staff of the Commonwealth Institute of Biological Control during surveys of parasitoids on mealybugs, and all host records are of plants belonging to the family Acanthaceae, to which it may be restricted. Although the species is described in *Dysmicoccus*, it possesses oral collar tubular ducts that are grouped in threes, a character not normally associated with *Dysmicoccus*.

Dysmicoccus triadus sp. n. (Fig. 1)

Adult female External appearance not recorded. Slide-mounted specimens elongate-oval to broadly-oval, largest specimens attaining a length of 2.85 mm, anal lobes poorly developed, each with an apical seta 140–160 µm long and without any sclerotisation of the ventral surface. Antennae 300–380 µm long, with 8 segments. Legs well developed, short and slender. Hind trochanter + femur 220–260 µm long, hind tibia + tarsus 240–280 µm long, claw 30 µm long. Ratio of lengths of hind tibia + tarsus to hind trochanter + femur 1.04–1.18. Ratio of lengths of hind tibia to tarsus 1.7–2.1. Hind coxa, femur and tibia with a few minute translucent pores. Tarsal digitules of first legs disparate, one longer and stouter than the other. Tarsal digitules of second and third legs, normal. Labium 130–140 µm long, about same length as clypeolabral shield. Circulus usually absent, but when present, 40–90 µm wide, oval, between third and fourth abdominal segments, not divided by intersegmental line. Ostioles with inner edges of lips moderately sclerotised, each lip with one or two setae and a few trilocular pores, except posteriormost lips without setae. Anal ring with two rows of pores and 6 setae, each 100–120 µm long. Cerarii numbering 15–17 pairs. Anal lobe cerarii with 2 enlarged conical setae, 28 µm long, about 5 auxiliary setae, and a small group of trilocular pores, all on an indefinite sclerotised area, smaller in area than the anal ring. Penultimate cerarii each with shorter conical setae, 1–2 auxiliary setae and 3–4 trilocular pores, the base lightly sclerotised. Anterior cerarii not sclerotised except immediately around setal bases, each usually with 2 conical setae about 12 µm long, one or two auxiliary setae and a few trilocular pores; sometimes on head and thorax with 3 or even 4 conical setae, and on thorax and anterior abdominal segments without auxiliary setae, and with trilocular pores reduced to only 2 or 3. Occasionally one or two cerarii on head absent or conical setae on some anterior cerarii replaced by flagellate setae. Sometimes the auxiliary setae not much longer than the conical setae, but in some specimens about twice as long.

Dorsal surface with slender flagellate setae in moderate numbers, usually short, rarely

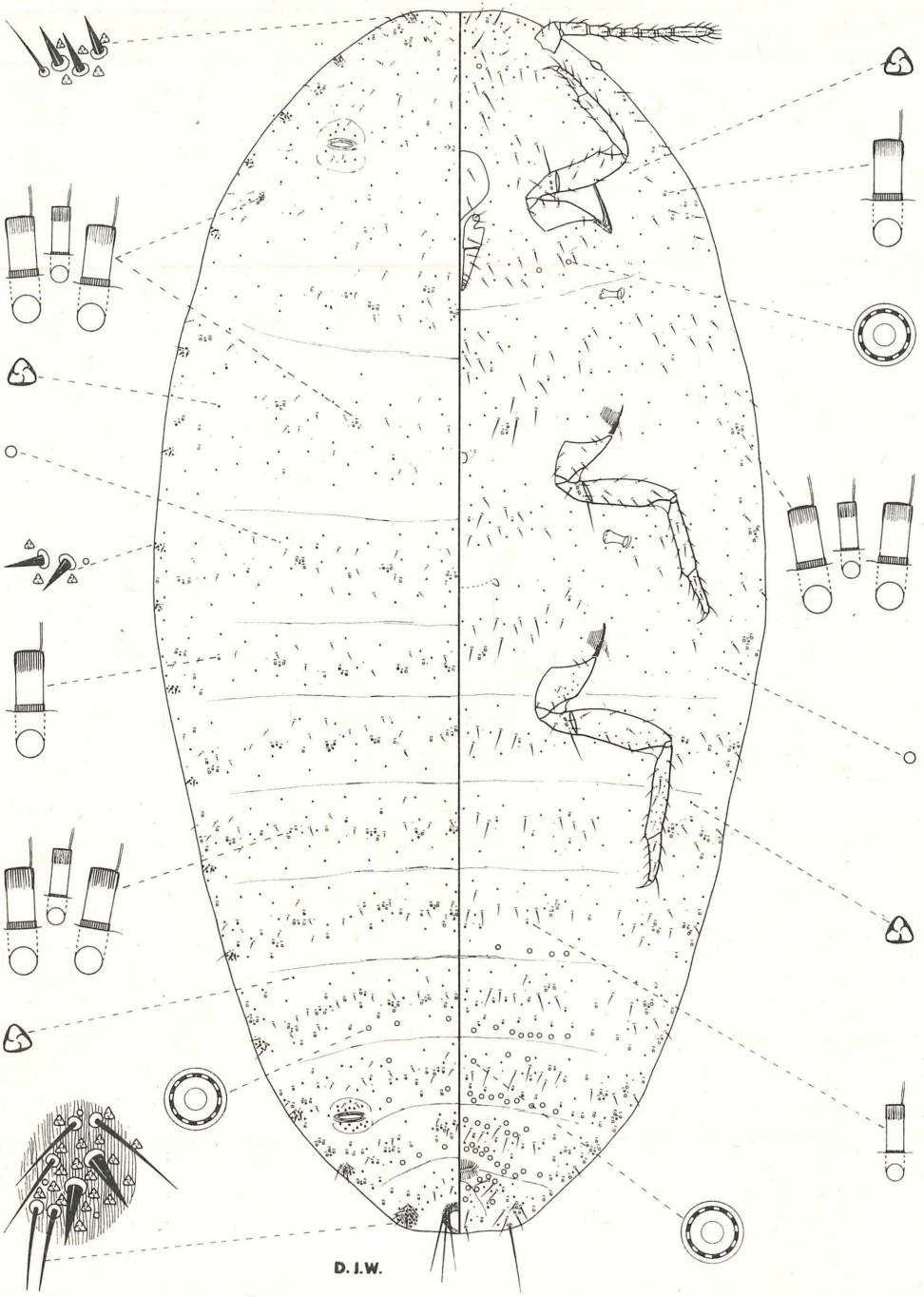

Fig. 1: *Dysmicoccus triadus* sp. n.

longer than 28 µm, although in some specimens they may be as long as 40 µm. Trilocular pores not numerous, fairly evenly distributed. Oral collar tubular ducts of 2 sizes, a larger type, about the same width as a trilocular pore, and a narrower but shorter type. For the most part these ducts are in groups, usually with 2 large and 1 small type together, forming a group of 3, but occasionally there may be 3 or even 4 of the large type with a single small duct. The large type also present singly between the groups. Minute discoidal pores sparse, each about same diameter as a single loculus of a trilocular pore. Multilocular disc pores occasionally present on posterior abdominal segments only, in single rows across median areas, but often absent entirely

Ventral surface with normal flagellate setae. Multilocular disc pores in single to double rows at posterior edges of the 4th and posterior segments; at anterior edges also of 6th and 7th segments, and sometimes present in small numbers on head and behind first coxae. Oral collar tubular ducts of the same two sizes as on dorsum; the small type in rows across the abdominal segments, and sparse in median areas of head and thorax; present singly also among the large type to form groups of 3 or 4, these situated mainly around margins, the median areas of thorax and submedian areas of abdomen. Trilocular pores in a fairly even distribution, but not numerous. Discoidal pores sparse, same size as on dorsum.

Holotype ♀, India, Tamil Nadu, Madras, on *Graptophyllum indicum* (Acanthaceae), 1983, British Museum (Natural History). Paratypes 1 ♀, same data as holotype; 1 ♀, same data but on *Eranthemum atropurpureum* (Acanthaceae); 1 ♀, Karnataka, Nandi, 6. I. 1982; 1 ♀, Mysore, Bangalore, 10. IX. 1977, all in British Museum (Natural History). Non-paratypic material. Pakistan, Abbottabad, 14. IV 1963 (M. A. GHANI); Khall, 9. XI. 1963 (M. A. GHANI); Hassanabdal, 19. IV 1975, 5. V 1975, all on *Adhatoda vasica* (Acanthaceae).

At first sight this species resembles some species of *Peliococcus* BORCHSENIUS in possessing groups of ducts on the dorsum and venter. *Peliococcus*, however, belongs to a group with short lanceolate setae on the dorsum, and quinquelocular disc pores on the venter. The new species has slender flagellate setae on the dorsum and lacks quinquelocular disc pores. It also has 17 pairs of cerarii and lacks oral rim ducts. Its true affinities are, therefore, with *Dysmicoccus* at present understood, but it is difficult to offer an opinion on its relationships because it has no close relatives among species. Nevertheless in its cerarii and in its distribution of the multilocular disc pores and ducts, it comes close to *D. timberlakei* (COCKERELL), described from California. In *D. timberlakei*, however, the dorsal and ventral ducts are evenly dispersed and have no tendency to form definite groups.

No description of this mealybug in life is available but the secretions from the groups of ducts probably give it an unusual appearance. Although the host-plants have not always been recorded, all records to date are for genera of the family Acanthaceae, to which it may be restricted.

Address of author:
Dr D. J. Williams, Commonwealth Institute of Entomology, c/o British Museum (Natural History),
Cromwell Road, London SW7 5BD (UK)