

## A NEW GENUS AND SPECIES OF SCALE INSECT FROM TASMANIA (HOMOPTERA: ERIOCOCCIDAE)

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### Abstract

The new genus and species *Phacelococcus brookesae* is described and illustrated. The unusual clusters of quinquelocular pores along with the absence of dorsal enlarged setae distinguish this eriococcid from all other members of the family.

### INTRODUCTION

The poorly known eriococcid fauna of the Australian Region is of special interest since this area appears to be near the centre of origin of the family Eriococcidae. Because of this, I believe that it is important to describe as many Australian eriococcids as possible. This may enable coccidologists to explain better the unusual eriococcid distribution patterns first pointed out by Hoy (1962). A detailed discussion of the zoogeography of the Eriococcidae will be presented in a future paper.

### DESCRIPTION

For a discussion of the terminology used in this paper, see Miller and McKenzie (1967).

### *Phacelococcus* gen. n.

#### Diagnosis

Adult female rotund. Anal lobes small, dorsal, slightly removed from abdominal apex. Anal ring cellular, with 3 pairs of setae. Enlarged setae absent. Macrotubular ducts present on both surfaces. Microtubular ducts with single sclerotization at apex. Multilocular pores of quinquelocular type, characteristically gathered into large clusters. Cruciform pores present, predominant on dorsum. Legs small; pores absent from leg segments; small denticle on claw. Antennae 6- or 7-segmented.

Type species: *Phacelococcus brookesae* sp. n.

#### Notes

This genus may be distinguished from all other genera of the Eriococcidae in possessing the following combination of characters: large clusters of quinquelocular pores, dorsal anal lobes which are removed from apex of abdomen, numerous dorsal cruciform pores, and microtubular ducts which possess a single apical sclerotization.

Superficially this eriococcid resembles the Northern American genus *Ovaticoccus* Kloet, but this is probably a reflection of similarity in habit rather than a close phylogenetic relationship. Members of both *Phacelococcus* and *Ovaticoccus* occur under the bark of their hosts.

### *Phacelococcus brookesae* sp. n.

(Fig. 1)

*Types*.—*Holotype* adult ♀ (1 specimen on slide), TASMANIA, Sandy Bay, near Hobart, 21.viii.1965, on *Eucalyptus globulus* (Myrtaceae), H. M. Brookes, in Australian National Insect Collection, C.S.I.R.O., Canberra, A.C.T.; 3 adult ♀♀ *paratypes*, same data, in U.S. National Museum, Washington, D.C., and in collection of the Waite Agricultural Research Institute, Glen Osmond, South Australia.

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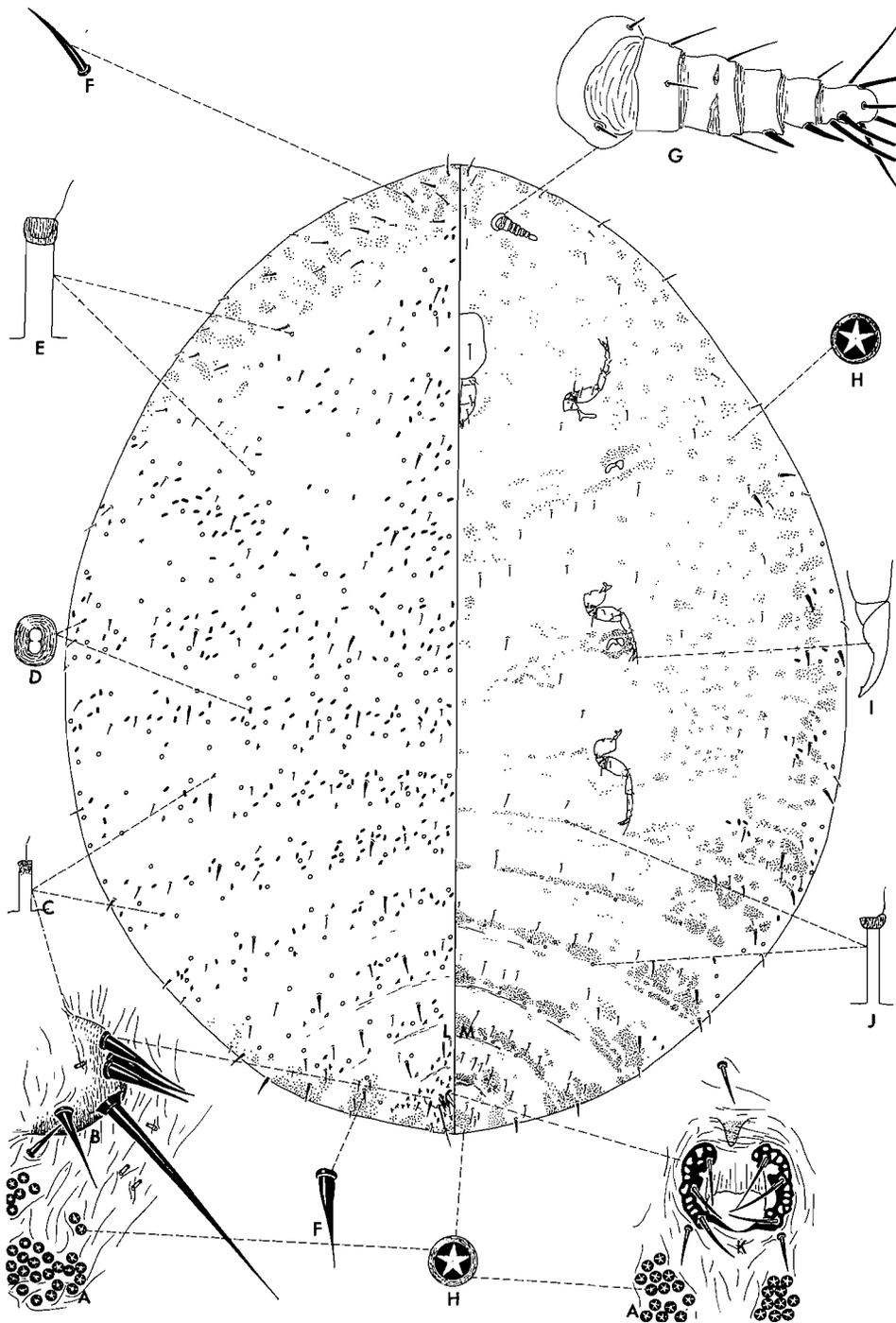


FIG. 1.—*Phacelococcus brookesae* sp. n.: (A) clusters of quinquelocular pores; (B) anal lobe; (C) microtubular duct; (D) cruciform pore; (E) large size macrotubular duct; (F) large size body setae; (G) antenna; (H) quinquelocular pores; (I) claw; (J) small size macrotubular duct; (K) anal ring; (L) dorsal surface of body; (M) ventral surface of body.

*Field features.*—This species occurs in a wax cell which it produces under the bark of its host.

#### *Recognition characters*

Adult female holotype, mounted, 3.1 mm long, 2.9 mm wide (adult female paratypes 2.9 to 3.6 mm long, 2.8 to 2.9 mm wide). Anal lobes dorsal, removed from abdominal apex, slightly sclerotized; each lobe with 4 setae approximately 50  $\mu$  long (3 on medial margin and 1 on lateral margin) and 1 seta approximately 190  $\mu$  long; each lobe with 1 microtubular duct.

*Dorsum* with setae of 2 sizes: larger size, though not of enlarged type, more robust than normal type of eriococcid body setae, present over entire surface, becoming progressively smaller anteriorly; smaller size scattered over surface. Macro-tubular ducts of 1 type: present over entire dorsum, except within clusters of quinquelocular pores. Microtubular ducts approximately 3  $\mu$  long, with area farthest from dermal orifice sclerotized and undivided; total sclerotized portion approximately one-half as long as unsclerotized portion; dermal orifice unsclerotized. Microtubular ducts scattered over surface, most abundant on abdominal segment IX. Multilocular pores of 1 kind: quinquelocular pores present in large clusters on margins of abdominal segments IX through VI and on margins of prothorax and head. Cruciform pores present from abdominal segment VII through head, most abundant on medial areas.

Anal ring dorsal, circular, and cellular, with 3 pairs of associated setae. Small dermal invagination anterior to ring.

*Venter* with body setae unusually short for an eriococcid (longest seta on abdominal segment III approximately 32  $\mu$ ). Setae of same 2 sizes as on dorsum; larger size restricted to lateral margins. Macro-tubular ducts of 2 sizes: larger size restricted to lateral margins of abdomen and thorax; smaller size on medial areas of abdomen associated with clusters of quinquelocular pores. Microtubular ducts present in small numbers on lateral areas. Multilocular pores of quinquelocular type only, present in clusters over entire surface, largest clusters present on posterior abdominal segments, along lateral margins of thorax, and near spiracles. Cruciform pores present in small numbers along lateral margins of abdomen and thorax.

Legs unusually small for an eriococcid; leg pores absent; tibiae with 4 setae; inner, apical, tibial setae not enlarged; tarsi longer than tibiae (hind tibia/tarsus ratio 0.61) (paratypes from 0.56 to 0.59); claws with small denticle near apex. Antennae 6-segmented on 1 side 7-segmented on other, segment 3 either partially or entirely divided. When 6-segmented, sixth segment with 3 or 4 sensory setae; fifth segment with one seta slightly longer than single sensory seta on segment 4.

*Variation.*—The paratypes differ from the holotype in possessing the following: 7-segmented antennae only, more ventral cruciform pores, and more ventral microtubular ducts.

#### *Notes*

I know of only one other species, *Eriococcus stellatus* McDaniel, which possesses the characteristic clusters of quinquelocular pores. This species also occurs beneath the bark of its host (McDaniel 1963). It differs from *Phacelococcus brookesae* in possessing the following: anal lobes situated at apex of abdomen, numerous dorsal enlarged setae, no cruciform pores, tibiae much longer than tarsi.

#### ACKNOWLEDGEMENTS

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