

### Discussion

*R. orbis* is the first species of *Rhopalothrix* to be recorded from Australia. It is obviously closely related to *R. diadema* but the two species are easily distinguished by their different dimensions and proportions, as well as the major characters utilized in couplet 2 of the key presented above.

### Genus EURHOPALOTHRIX Brown & Kempf

*Eurhopalothrix* Brown and Kempf, 1961, p. 44.\*

Brown and Kempf divided the Indo-Australian *Eurhopalothrix* species into three groups: those of *brevicornis*, *biroi*, and *procera*. I consider the *biroi* group unnecessary, and would assign *biroi* (Szabó) and *philippina* Brown & Kempf to the *brevicornis* group, and *isabellae* (Mann) to the *procera* group.

#### The *brevicornis* Group

In addition to *biroi* and *philippina* this group includes *E. brevicornis* (Emery), *E. australis* Brown & Kempf, *E. caledonica* Brown & Kempf, and *E. punctata* (Szabó). These are small species (worker HW less than 0.75 mm), usually with square-cut occipital lobes and an evenly arched mesosomal profile, which is not markedly depressed behind the promesonotum (Brown and Kempf 1960, figs. 50–55). The pronotal and postpetiolar dorsa are not notably bilaterally tumose, and the sculpturation is generally granulose-punctate throughout.

*E. brevicornis*, *E. australis*, and *E. caledonica* appear to be related and are probably primitive. They have similar propodeal profiles (Brown and Kempf 1960, figs. 55, 51, 52), fairly complete patterns of large specialized hairs on the head and gaster (Brown and Kempf 1960, figs. 44–6), and at least a few large bilaterally paired hairs on the mesosoma and nodes. The outer mandibular borders are convex.

Judging from propodeal structure and other characters, *E. australis* and *E. caledonica* are probably cognate. *E. biroi* is similar to these species, but it has concave outer mandibular borders, a more even mesosomal profile, a longer petiolar node, and it lacks specialized hairs on the first gastric tergite, although the nodes each bear 1 pair. The head has an almost full complement of specialized hairs, but these are reduced in size, and the usually inconspicuous hairs of the ground pilosity on the vertex are almost as large (Brown and Kempf 1960, fig. 42). *E. philippina* has the occipital lobes rounded posteriorly (Brown and Kempf 1960, fig. 47), but otherwise resembles *biroi* in habitus. The ground pilosity is not hypertrophied, specialized hairs are lacking on the nodes, and there is only 1 pair on the vertex. *E. punctata* is smaller, but similar in habitus to *biroi*; it has inconspicuous ground pilosity, convex outer mandibular borders, a shorter petiolar node, and it lacks specialized erect hairs on the head, mesosoma, nodes, and first gastric tergite. These last three species may be members of a single phyletic line descended from *brevicornis*-like stock, or they may represent two or three separate lineages. Distributions of all these species are summarized in the key above.

\* Following their original (1960) omission in not indicating a type species for *Eurhopalothrix*, Brown and Kempf (1961) subsequently designated *Rhopalothrix bolau* Mayr as type species. The genus was not validly published until that time.