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### **A redescription of the type species of the jumping spider genus *Pseudomaevia* (Araneae: Salticidae) from Lord Howe Island, Australia**

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The genus *Pseudomaevia* Rainbow, 1920 presently includes three forms, *P. cognata* Rainbow, 1920, *P. insulana* Berland, 1942 and *P. i. aorai* Berland, 1942, all found in the western Pacific region (Platnick 2014). The type species, *P. cognata*, was only briefly described with some poor illustrations of the male, but no information was given on the female. This situation makes placing species in this genus, or the genus in a wider context, difficult. The present work describes and illustrates both sexes of the type species. The female genitalia are unusual in that the insemination duct joins the fertilization duct without any apparent spermatheca. The subfamilial placement of the genus is unknown.

Material in the collections of the AM (Australian Museum, Sydney) and SAMA (South Australian Museum, Adelaide) were used in the study. Institutional abbreviations follow Evenhuis (2009). Location information is given as on the sample label and latitudes and longitudes are given as decimal degrees. A series of measurements was taken (see Richardson 2012). The following abbreviations are used: AEW: anterior eye row width, AL: abdomen length, AMEW: anterior median eye row width, CL: cephalothorax length, CW: cephalothorax width, EFL: eye field length, PEW: posterior eye row width, L1–4: length of legs 1–4, P1+T1: tibia plus patella length of L1. The measurements for the holotype are given. Female genitalia were dissected, cleared using 50% lactic acid, and drawn using a camera lucida. Specimens were photographed using either a reflecting microscope and the Leica Application Suite with montage or a transmittance microscope and Helicon processing.

#### ***Pseudomaevia* Rainbow, 1920**

Type species: *Pseudomaevia cognata* Rainbow, 1920 by monotypy.

**Remarks.** As well as the male type specimen of *P. cognata*, a number of extra specimens collected more recently are available. These include females, which are described here. The sexes are considered conspecific because of the similar body forms and color patterns, plus the absence of congeneric species on the island. Female genitalic anatomy is unusual in that there is a well-developed diverticulum or gland arising from the insemination duct not far from the copulatory opening and the insemination duct joins the fertilization duct without any apparent spermatheca (Figs 13–14). The absence of a diverticulum and the presence of a well-developed spermatheca in *P. insulana* Berland, 1942 and, presumably, *P. i. aorai* Berland, 1942, shows that they are not congeneric with *P. cognata* (Žabka 1988).

A possibly related genus is *Corambis* Simon, 1901 from New Caledonia and the Loyalty Islands (Žabka 1988, Szűts 2002). *Corambis* and *Pseudomaevia* are similar in sharing an elongate general morphology with long strongly built L1's and in the presence of poorly defined spermathecae with diverticulae and very long, laterally-directed, fertilization ducts. However the 'flow' through the systems is in opposite directions, with medially placed fertilization ducts and lateral insemination openings in *Corambis*, while it is the insemination openings that are medially placed in *Pseudomaevia*, with lateral fertilization ducts (Figs 13–14). In the male, in *Corambis*, unlike *Pseudomaevia*, fringing is present on L1 and there are four large spines on the tibia of L1. In *Pseudomaevia* (Fig. 6) there is a pair of tibial apophyses on each palp and the long embolus arises from a distinct mound behind the prolateral edge of the tegulum. This then moves away from the tegulum before forming an anti-clockwise quarter circle. There is no conductor separate from the embolus, and no proximal lobe on the tegulum in *Pseudomaevia*.

There are no other obviously related genera, most similar seemingly *Baviola* Simon, 1898 from the Indian Ocean, and *Spilargis* Simon, 1902 from Indonesia, New Guinea and the Pacific (Prszyński 2014). However these are both considered members of the Euophryinae while *Pseudomaevia* is not: for example, the peripheral position of the sperm

the vertical section is the insemination duct, the first two thirds of the horizontal section (orange coloured, Fig. 14) is the spermatheca and the final third the fertilization duct. Dimensions: CL 5.15, EFL 1.92, CW 3.47, AEW 2.48, AMEW 1.55, PEW 2.79, AL 8.61, P1+T1 4.46, L1 10.4 (2.97+1.85+2.72+2.04+0.80), L2 6.93 (2.17+1.24+1.73+1.30+0.50), L3 5.94 (1.92+0.99+1.24+1.24+0.56), L4 8.17 (2.35+1.24+2.35+1.61+0.62).

**Distribution and biology.** The species is known only from Lord Howe Island, an Australian administered island 700km north-east of Sydney in the Tasman Sea. It has been collected on foliage and in pitfall traps.

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