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A NEW SPECIES OF LESTONIIDAE (Hemiptera)

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Abstract: A new species of *Lestonia* is described from Australia.

The Lestoniidae are a peculiar Australian family, first described by China (1955) as a subfamily of the Plataspidae and later raised by China & Miller (1959) to family rank. At that time only one species was known; however, subsequent searches in Museums have brought to light a second species of this family. Unfortunately nothing is known of the biology of this species.

***Lestonia grossi* McDonald, new species** Fig. 1-2.

Description of ♂ holotype. **COLOR.** *Head*: Putty colored with darker brown margins. Antennae, segment 1 amber colored, segments 2-4 dark brown, rostrum light brown. *Thorax*: Dorsal surface of prothorax and scutellum fawn with brown patches and streaks; 2 ivory colored spots 1 on each side on base of scutellum. Sterna yellow-brown with darker brown patches at lateral angles of prosternum and along margins of meso and metasterna. *Legs*: Yellow brown with darker brown patches near apex of femora. *Wings*: Corium and clavus similar to scutellum, apex of corium with a triangular magenta spot. Membrane with a reticulation of dark brown veins. *Abdomen*: Sterna yellow-brown with darker brown patches on lateral margins of 1st 6 segments.

MORPHOLOGY. *Head*: Similar in structure to that described for the genus (China 1955). Length of antennal and rostral segments given under measurements. Fifth antennal segment entire. *Prothorax*: Large and shield-like similar to *Lestonia haustorifera* China (1955). *Mesothorax*: Scutellum well developed; mesosternum narrow elongate bearing a pair of small transverse stink gland openings (fig. 2) with an elongate curved peritreme, one on each side of the midline. *Metathorax*: Reduced and elongate. *Legs*: Tarsi 2-segmented. *Wings*: Hemelytra together with scutellum cover the dorsal surface of the abdomen. Hemelytra with an explanate costal lobe. *Abdomen*: Sterna 5-7 with 3 pairs of closely apposed shallow dark brown depressions on each side (fig. 2). The inner depression on segment 6 being larger than the other 2. One pair of spiracles on each of sterna 3-7, each outlined in dark brown and placed one on each side, well in from the lateral margins. Situated behind each spiracle are a pair of trichobothria placed on the edge of a very small shallow depression (fig. 3). Abdominal segment 7 deeply incised enclosing segment 9 the pygophore.

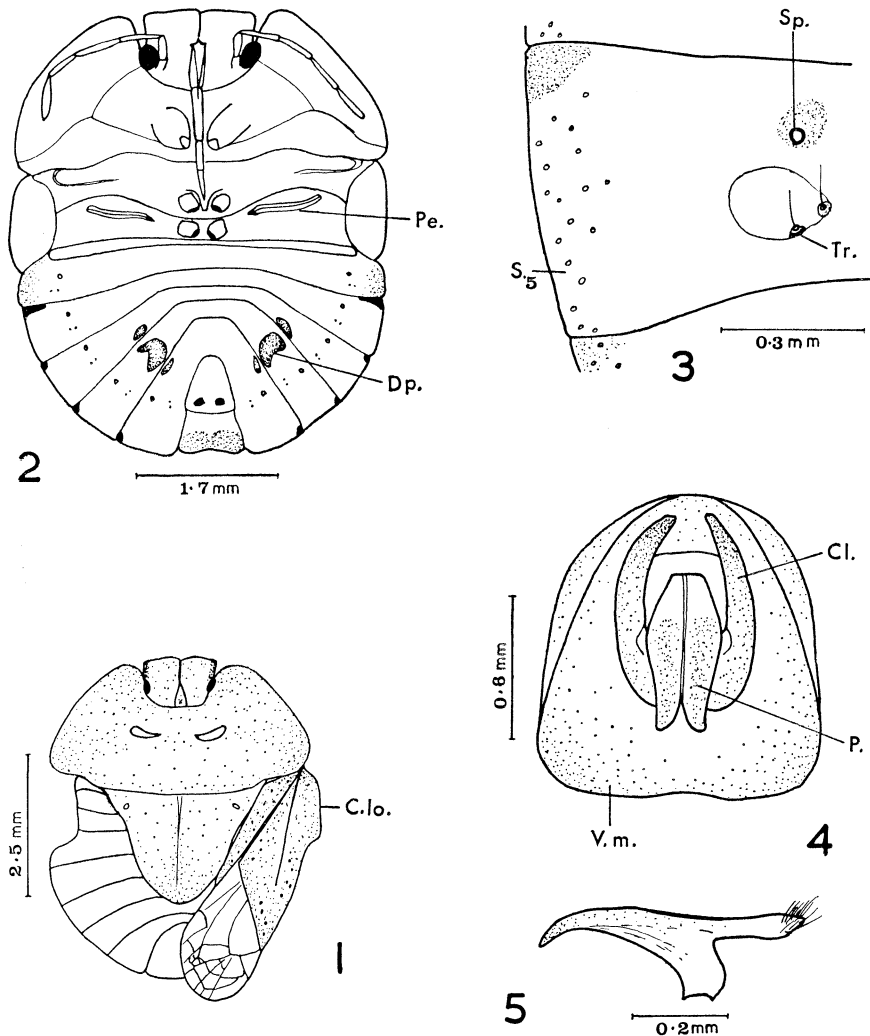


Fig. 1-5. *Lestonia grossi* n. sp.: 1, dorsal view. 2, ventral view. 3, abdominal sternum 5. 4, pygophore, dorsal view. 5, right clasper; C. lo., costal lobe; Cl., claspers; Dp., depression on abdominal sternum; P., proctiger; Pe., peritreme; S.₅ abdominal sternum 5; Sp., spiracle; Tr., trichobothrium; V.m., ventral margin.

GENITALIA. *Pygophore*: Triangular with a broad ventral border (fig. 4); proctiger with 2 blunt processes distally. *Claspers*: One pair, elongate C-shaped (fig. 5) with a short stout stem; exposed one on either side of proctiger in situ. A number of short setae on distal end. *Aedeagus*: Theca small squat (fig. 6). One pair of spatula-like conjunctival appendages (fig. 6). Ductus seminis (fig. 7) passing into a small ventral chamber from which arises the endophallic duct; latter stouter and 2× length of theca.

The internal details could not be adequately studied, since only 1♂ specimen was available and this could not be fully expanded.

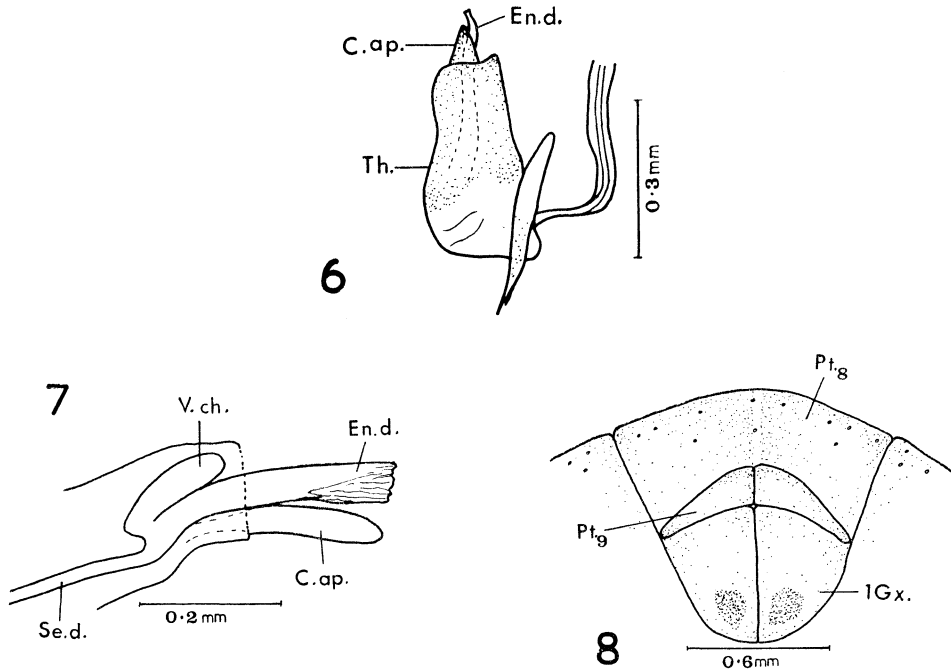


Fig. 6-8. *Lestonia grossi* n. sp.: 6, theca, lateral view; C. ap., conjunctival appendage; En. d., endophallic duct; Th., theca. 7, vesica, lateral view; 8, external ♀ genitalia; C. ap., conjunctival appendage; En. d., endophallic ducts; 1 Gx., 1st gonocoxa; Pt.s, paratergite 8; Pt.g, paratergite 9; Se. d., ductus seminis; V. ch., ventral chamber.

MEASUREMENTS. *Head*: Width between eyes 1.00 mm. Length from anterior margin of head to posterior margin of pygophore 5.58 mm. Width across base of pronotum 4.50 mm. *Length of antennal segments*: 1, 0.36 mm; 2, 0.52 mm; 3, 0.40 mm; 4, 0.50 mm; 5, 0.44 mm. *Length of rostral segments*: 1, 0.44 mm; 2, 0.52 mm; 3, 0.44 mm; 4, 0.40 mm.

Description of ♀ (fig. 8). Very similar in most respects to the ♂ holotype. The abdominal sterna 6 and 7 each bear a pair of oval brown or magenta colored depressions, one pair on each side separated by a ridge formed by the junction of sterna 6 and 7. Setae not present in these depressions. Spiracles and trichobothria similar to ♂. External ♀ genitalia (fig. 8) plate-like and similar to *L. haustorifera* (China, 1955).

Diagnosis: This species differs from *Lestonia haustorifera* in the following. It is a larger species; the adhesive organs are not nearly as well developed, being merely shallow depressions and lacking setae; the stink gland aperture possesses a distinct peritreme; the 5th antennal segment is entire (*Lestonia haustorifera*, the 5th antennal segment bears a shallow groove along its entire length); the aedeagus differs in several respects and appears to be of simpler construction.

DISTRIBUTION: Eastern Australia.

Holotype ♂, Sydney, New South Wales, Lea. (In South Australian Museum, Adelaide. Number I 20,532).

Paratypes: ♀, the Crater, near Herberton, Queensland, D. McAlpine & G. Holloway.

(In Australian Museum, Sydney); ♀, Sydney, New South Wales, Lea. (In South Austral. Mus. Number I 20,533).

I have much pleasure in naming this species after Gordon Gross, Chief Curator of Insects at the South Australian Museum.

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