

## TAXONOMIC REVISION OF THE TERMITOPHILOUS SUBTRIBE PERINTHINA (Coleoptera : Staphylinidae)

### II. The Genus *Lauella* with a Description of the First Species from Australia<sup>1</sup>

By David H Kistner<sup>2</sup>

*Abstract*: The genus *Lauella* Mann is redescribed and illustrated and a new species, *L. australiensis*, is described from Queensland, Australia, where it was found with *Nasutitermes graveolus* (Hill). A key to all species of *Lauella* is provided. *L. australiensis* is the first species of the genus that was captured in Australia.

The purpose of this paper is to redescribe the genus *Lauella* which has been known previously from Micronesia, Java, and Fiji, and to describe a new species from Australia. With this redescription and part I of this series (Pasteels & Kistner 1970), only 1 Old World genus remains to be done, and to do this, new material is needed from *Trinervitermes* sp. nests in India.

All of the specimens of the previously described species have been examined but without new material, little can be added to the excellent descriptions given by Seevers (1957) which have been checked and found to be accurate. Therefore only a key to the species is offered at this time. The distribution of all species is shown in fig. 3. The origin of the genus must be ancient as it is found on both sides of Weber's Line. All the presently known species of *Lauella* are found with species of *Nasutitermes*.

#### Genus *Lauella* Mann

*Lauella* Mann, 1921: 54.—Seevers, 1957: 177, 27 (convergent evolution), 45 (phylogeny), 46 (zoogeography).—Kistner, 1969: 541, fig. 9, (phylogenetic relationships).

Distinguished from all other genera of the subtribe Perinthina by the extremely short metasternum together with the shape of the 9th abdominal segment. Most closely related to the genera *Eutermitophila* and *Paraperinthus* from which it is distinguished by the shape of abdominal segment IX together with the extremely short metasternum. Also closely related to *Termitocola* Seevers from which it is distinguished by the fused mentum, submentum, and gula. In the genus *Termitocola*, the submentum is distinctly separated from the mentum.

Overall shape as in fig. 2. Head capsule oval in shape, slightly wider than long with no nuchal ridge nor any neck. Antennae inserted between eyes very near to anterior tentorial pits. Gula short, with sides diverging from anterior to posterior. Gula, submentum, and mentum all fused together. Eyes present, rounded in shape, with facets directed both anteriorly and laterally, non-setose. Antennae 11-segmented, as in fig. 2G; with 2 coeloconic sensillae on terminal segment. Mandibles asymmetrical, shaped as in fig. 2C and 2D. Maxillae

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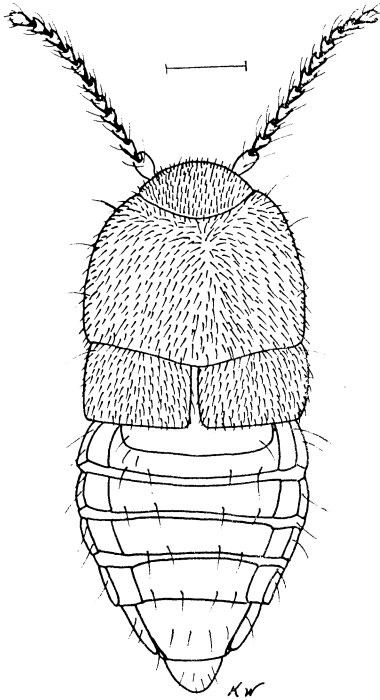


Fig. 1. *Lauella australiensis*, dorsal appearance of entire beetle. Scale represents 0.25 mm.

Dorsal rim of abdomen occurs between outer and inner paratergites; inner paratergites about  $5 \times$  as wide as outer paratergites. In fact the outer paratergites are so narrow as to appear to make up the dorsal rim of the abdomen all by themselves. Segment VII with a single median gland reservoir. Segment VIII represented by a tergite and sternite alone. Segment IX shaped as in fig. 2K. ♀ spermatheca sclerotized, presumed variable by species. ♂ genitalia unknown.

Type-species: *Lauella vitiensis* Mann (Blackwelder 1952: 212).

Notes: The name *Lauella* was apparently derived from the Lau group of the Fiji Islands.

#### KEY TO SPECIES OF LAUELLA

1. Head, pronotum, and elytra smooth and shiny, nearly devoid of punctation, and fine setae; pronotum with 8 marginal setae on each side; with *Nasutitermes olidus* (Hill) ..... *vitiensis* Mann
- Head, pronotum, and elytra with a dense covering of very fine short setae (as in fig. 1); pronotum with 3 or 4 marginal setae on each side ..... 2
2. Pronotum with a marginal row of 3 setae on each side, no long setae on pronotal disk; with *N. graveolus* (Hill) ..... *australiensis* n. sp.
- Pronotum with a marginal row of 4 setae on each side, long setae present on pronotal disk ..... 3

shaped as in fig. 2B; palpi 4-segmented. Maxillary acetabulae distinctly margined. Labium shaped as in fig. 2A; palpi 3-segmented. Labrum shaped as in fig. 2E.

Pronotum wider than long, shaped as in fig. 1. Posterior border of pronotum slightly sinuate, dorsal surface otherwise without distinction. Hypomera of pronotum extending inward about  $1/3$  width of pronotum on each side. Prosternum evenly rounded between legs with relatively short anterolateral articulation processes. Procoxal cavities closed behind by membrane containing strap-like sclerotized mesothoracic peritremes. Mesosternum about equal in length to metasternum with a broad slightly pointed acarinate process between the widely separated and distinctly margined mesocoxal acetabulae, as in fig. 2L. Metasternum smooth with no unusual features, shaped as in fig. 2L. Elytra shaped as in fig. 2F, lateral borders slightly reflexed ventrally. Wings present and of normal size, with the usual staphylinid venation. Pro-, meso-, and metalegs shaped as in fig. 2H, 2J, and 2I, respectively; tarsal formula 4-4-4. Procoxae longer than femur of foreleg, metacoxae only slightly expanded with length somewhat less than equal to width.

Abdomen shaped as in fig. 1, not physogastric. Segment I fused to metanotum. Segment II represented by tergite alone. Segments III-VII with 1 tergite, 1 sternite, and 2 pairs of paratergites each.

3. Pronotal disk with longitudinal rows of 2, 2, 3, 3 setae, beginning with median row and excluding setae of anterior and lateral margins and counting to the side; pronotum less than  $\frac{2}{3}$  broader than head; with *N. brevirostris* (Oshima) .....  
 ..... **palauensis** Seevers

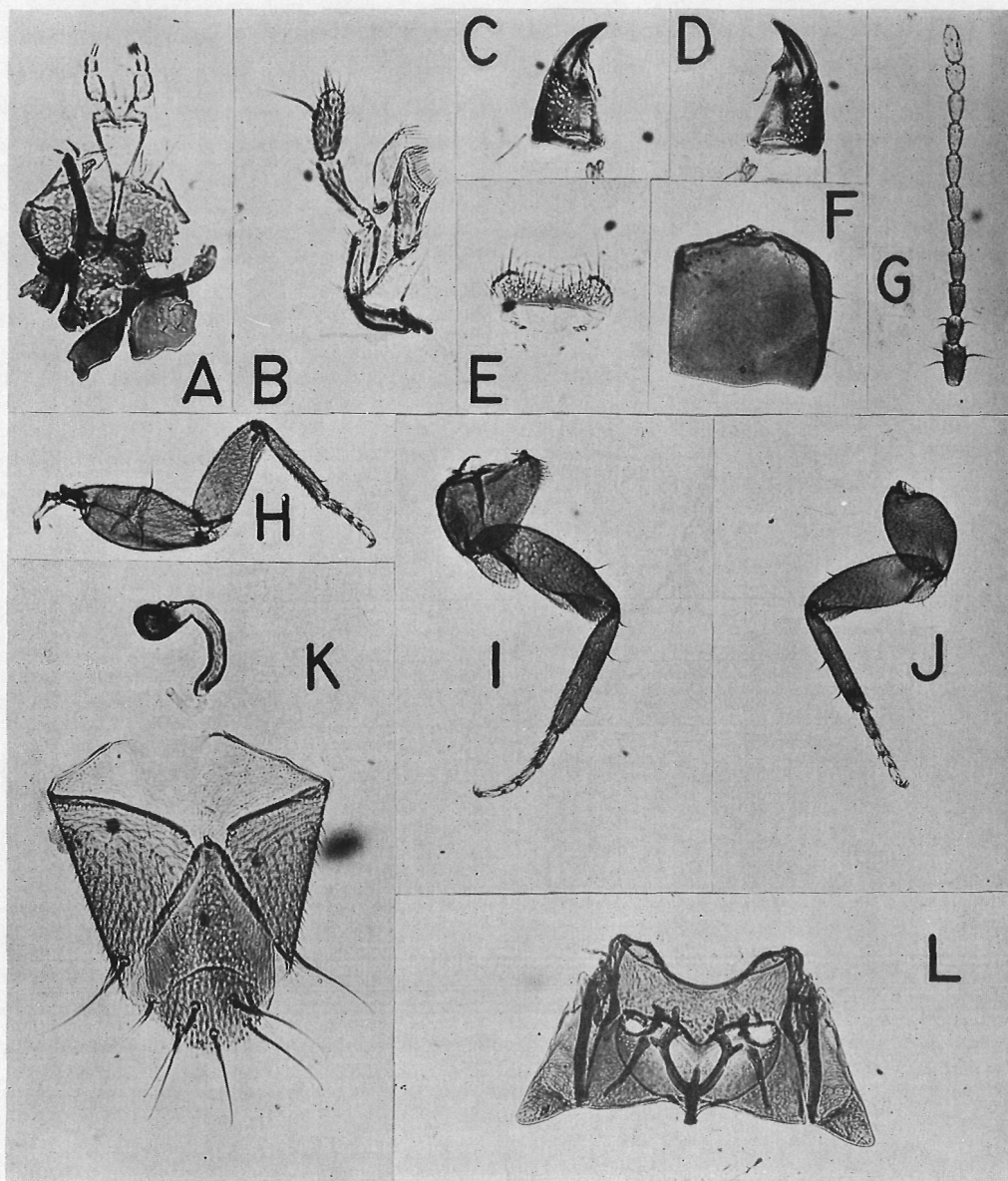


Fig. 2. *Laella australiensis*: A, labium and portion of fused submentum; B, maxilla; C, right mandible; D, left mandible; E, labrum; F, elytron; G, antenna; H, proleg; I, metaleg; J, mesoleg; K, abdominal segment IX and spermatheca; L, meso- and metasternum.

Pronotal disk with longitudinal rows of 2, 2, 2, 3 setae, counted as above; pronotum nearly 3/4 broader than head; with *N. corporaali* (Wasmann) ..... **javana** Seevers

***Lauella australiensis*** Kistner, new species      Fig. 1, 2.

Most closely related to *Lauella palauensis* Seevers from which it is distinguished by its chaetotaxy.

Color reddish brown throughout, appendages somewhat lighter. Dorsal surface of head, pronotum, and elytra smooth and shiny, with an even vestiture of extremely fine yellow setae, as in fig. 1. Anterior border of pronotum with a double sinuate shape. Posterior border of elytra with a sinuate shape and a very slight indentation slightly inward from lateral edge as in fig. 2G. Head with no large black setae. Each lateral border of pronotum with 3 long black chaetae, no chaetae on disk. Lateral border of elytra with 2 macrochaetae, disk without any macrochaetae. Macrochaetotaxy of abdominal tergites II-VIII as follows: 0, 4, 4, 4, 4, 4-4. All sternites with an apical row of black setae. Male genitalia unknown. Spermatheca shaped as in fig. 2K.

Measurements (in mm): Pronotal length, 0.47-0.50; elytral length, 0.32-0.34. Number measured, 6.

Holotype (No. 13736), Australia, Queensland, Cardwell Range, 9.VI.1962, F. J. Gay. In the Australian National Insect Collection, Canberra.

Paratypes: 6, same data as holotype (CSIRO, DK).

Notes: The host colony of this species was determined to be *Nasutitermes graveolus* (Hill) by F. J. Gay. Specimens of the host are in the Australian National Insect

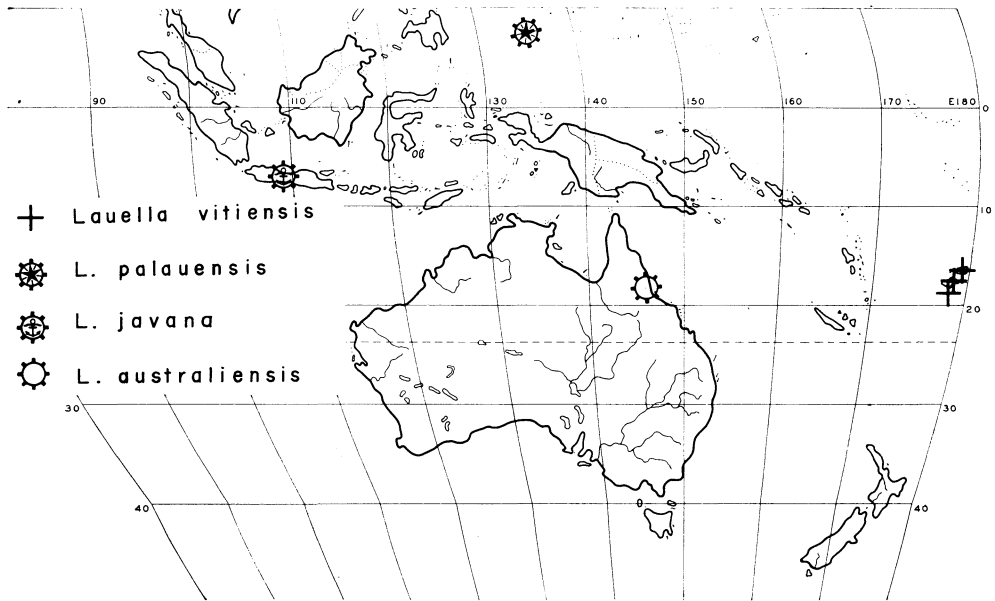


Fig. 3. Distribution of the species of the genus *Lauella*.

Collection, Canberra. The distribution of the species is shown in fig. 3.

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