# *Sticholeia* – a new genus of Leiini, with comments on the systematic position of *Allactoneura* de Meijere (Diptera: Mycetophilidae)

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A new genus, *Sticholeia*, is erected to comprise two new species, *cheesmanae* and *dolichostyla*, from New Guinea and Vanuatu, respectively, and an unnamed female from Indonesia. Members of the new genus have two ocelli, a row of strong bristles near the hind margin of the eyes, tibial trichia arranged in regular rows, and strongly prolonged male terminalia. Despite featuring some characters supposed to be diagnostic for the subfamily Manotinae, the new genus is attributed to the tribe Leiini of Sciophilinae. The genus may represent the sistergroup of *Allactoneura* de Meijere plus *Leiella* Enderlein. Judged from the distribution of characters among Leiini the monotypic tribe Allactoneurini is rejected.

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## Introduction

A small collection of unidentified specimens was borrowed from the Natural History Museum, London (BMNH), as a part of a study of *Manota* Williston, 1896 and related genera. Among others, the collection held 19 specimens which could not be referred to any hitherto described genus. Two species were recognised, one from Vanuatu, the other from New Guinea, and an additional female from Indonesia. The specimens were featuring a combination of characters found in members of the subfamily Manotinae and in *Allactoneura* de Meijere, 1907 and some other genera in the tribe Leiini in the subfamily Sciophilinae.

Four genera are included in Manotinae which combine the presence of strong projecting setae behind the hind margin of the eyes, tibial trichia arranged in longitudinal rows, and absence of strong tibial bristles. The tribe Leiini comprises 28 genera, all characterised primarily by a very short $R_1$. Except for this, few synapomorphies are known for the group.

When Edwards (1925) erected the subfamily Manotinae, he included both *Manota* and *Allactoneura* 'in spite of great difference between them'. Their inclusion in a common subfamily was above all based on the presence of strong, recurved bristles behind the hind margins of the eyes. *Allactoneura* was later removed from the subfamily and placed in a new monotypic tribe, Allactoneurini, in the Sciophilinae (Shaw & Shaw 1951). Today, *Allactoneura* is commonly included in the Leiini (e.g. Matile 1980, 1989) – a position first suggested by Tuomikoski (1966). Zaitzev (1981), however, reinstated the tribe Allactoneurini due to the lack of shared characters with other Leiini; both tribes were later ranked as subfamilies (Zaitzev 1994).

## Methods and terminology

Of the 19 specimens referable to the new genus, 5 were cleared and slide mounted in Canada balsam. The remaining specimens has their terminalia cleared and placed in microvials together with the pinned specimen. Most measurements were made on dry-mounted material.

One or more species of each of the following genera have been studied (one studied species listed for each): Manotinae: *Eumanota* Edwards,

1933 (undescribed Oriental species), *Manota* Williston, 1896 (*serrata* Söli, 1993) and *Paramanota* Tuomikoski, 1966 (undescribed Oriental species); Leiini: *Acrodicrania* Skuse, 1888 (*bifasciata* Edwards, 1928), *Allactoneura* de Meijere, 1907 (*argentosquamosa* (Enderlein, 1910)), *Anomalomyia* Hutton, 1904 (*guttata* (Hutton, 1881)), *Clastobasis* Skuse, 1890 (undescribed Afrotropical species), *Cycloneura* Marshall, 1896 (*flava* Marshall, 1896), *Docosia* Winnertz, 1893 (*gilvipes* (Walker, 1856)), *Ectrepesthoneura* Enderlein, 1911 (*hirta* (Winnertz, 1846)), *Garrettella* Vockeroth, 1980 (*shermani* (Garrett, 1925)), *Indoleia* Edwards, 1928 (*bisetosa* Edwards, 1928), *Leia* Meigen, 1818 (*winthemi* Lehmann, 1822), *Leiella* Enderlein, 1910 (*ochreocalchar* Enderlein, 1910), *Megophthalmidia* Dziedzicki, 1889 (*crassicornis* (Curtis, 1837)), *Mohelia* Matile, 1979 (undescribed Afrotropical species), *Neoclastobasis* Ostroverkhova, 1979 (*draskovitsae* Matile, 1978), *Paracycloneura* Tonnoir & Edwards, 1927 (*apicalis* Tonnoir *in* Tonnoir & Edwards, 1927), *Paradoxa* Marshall, 1896 (*fusca* Marshall, 1896), *Paraleia* Tonnoir, 1929 (*fulvescens* Tonnoir, 1929), *Procycloneura* Edwards, 1932 (*furcata* Freeman, 1951), *Rondaniella* Johannsen, 1909 (*dimidiata* (Meigen, 1804)), *Sigmoleia* Tonnoir & Edwards, 1927 (*melanoxantha* Edwards *in* Tonnoir & Edwards, 1927), *Tetragoneura* Winnertz, 1846 (*sylvatica* (Curtis, 1837)), *Thoracotropis* Freeman, 1951 (*cypriformis* Freeman, 1951) and *Trichoterga* Tonnoir & Edwards, 1927 (*monticola* Tonnoir *in* Tonnoir & Edwards, 1927).

Where no references are given, the terminology follows Vockeroth (1981) and McAlpine (1981). Female 'sternite 8', however, is here regarded as consisting of sternite 8 and the gonocoxites 8. This interpretation is mainly in accordance with Sæther (1977) and will be dealt with in a forthcoming paper.

Both wing length and the length of the cubital stem are measured from the distal median plate (Matile 1990, see Fig. 1).

## *Sticholeia* gen. n.

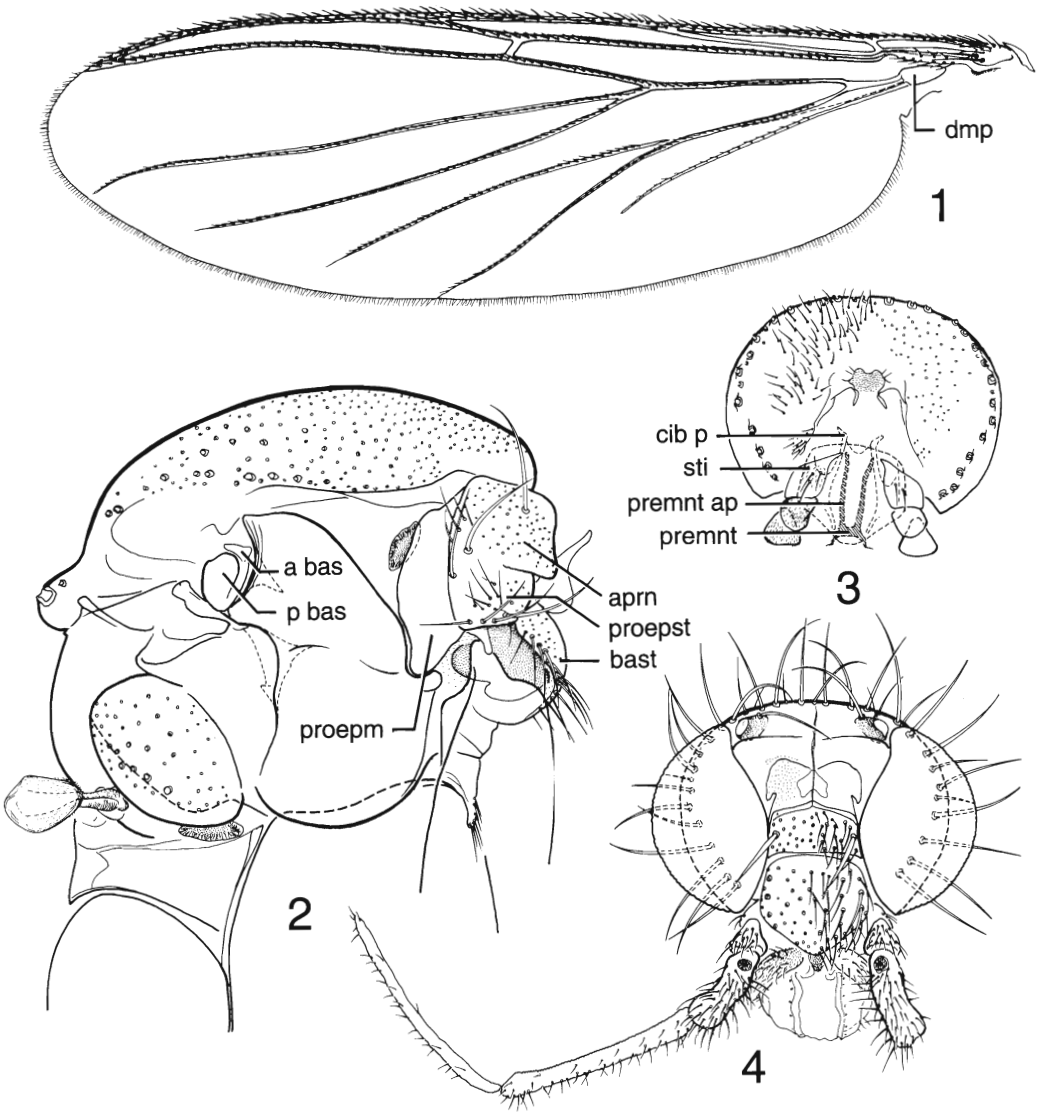
*Type species.* – *Sticholeia cheesmanae* sp. n. by present designation. Other included species: *S. dolichostyla* sp. n.

*Etymology.* – From the Greek *stichos*, a row, and *Leia*, a related genus, thus referring to the arrangement of the tibial trichia and the general resemblance to *Leia* and allied genera.

*Diagnostic characters.* – Back of the head with strong projecting bristles, only two ocelli nearly contiguous with the eye margin, and tibial trichia arranged in regular rows.

*Description.* – Head. Antenna inserted above middle of head. Scape and pedicel with small and larger setae. Fourteen flagellomeres. All flagellomeres densely clothed by trichia; each trichium situated in small depression giving the surface a polygon-like pattern. Flagellum in males 1.3-1.4 time length of mesonotum, in females shorter, about 1.0 time. Eyes large, median margin evenly rounded with a very shallow incision above the antennal socket; hexagonal ommatidia normally surrounded by 6 interommatidial setulae. Lateral ocelli large, nearly contiguous with eye margin; median ocellus absent. A row of strong, recurved bristles behind the hind margin of the eyes. Postgenae desclerotized and widely separated beneath occipital foramen. Top of head with several bristles, all pointing anteriorly; one bristle situated just inside each ocellus. Frons with distinct transverse keels above antennal sockets. Frontal tubercle indistinct. Small sclerotized plate developed between antennal sockets. Face subquadrate, setose, with a pair of lateral bristles. Clypeus slightly longer than broad, setose, with some lateral bristles. Labrum small and weakly sclerotized, with numerous fine trichia. Cibarial pump short and wide. Hypopharynx rounded distally, with several small, blunt teeth. Prementum short, broad; premental apodemes long. Labella large. Stipites more or less triangular, weakly sclerotized, each with a few setae. Laciniae reduced. Palpus consisting of five discrete palpomeres, each provided with trichia and setae. Palpomere 3 basally with a deep, apically constricted sensory pit. Two distal palpomeres slender, about twice as long as third palpomere; fifth palpomere slightly longer than fourth palpomere.

Thorax. Antepronotum and proepisternum more or less fused, separated by short anterior cleft, both setose; antepronotum subquadrate, with one bristle anteriorly, proepisternum with two posterior bristles and some shorter bristles along ventral border. Proepimeron large, bare, partly covering anterior border of anterior spiracle. Ventral portion of proepimeron fits into broad excavation in mesepisternum. Basisternum large, shield-like, setose, laterally bordered with dense row of weak bristles. Anepisternum subtriangular,




Figs 1-4. *Sticholeia cheesmanae* sp. n.: (1) left wing, dorsal view; (2) thorax; (3) head, posterior view; (4) head, anterior view. Abbreviations: a bas, anterior basalare; aprn, antepronotum; bast, basisternum; cib p, cibarial pump; dmp, distal median plate; p bas, posterior basalare; premnt, prementum; premnt ap, premental apodeme; proepm, proepimeron; proepst, proepisternum; sti, stipes.

bare. Anapleural suture incomplete, though both anterior and posterior portion traceable. Katepisternum partly covering the basal portion of midcoxa, bare. Anterior basalare small, posterior basalare very large, rounded. Pleural suture fades ventrally and do not reach ventral border of mesopleuron. Anepimeron wide, dorsal border entire, well sclerotized. Laterotergite ovate, protruding, with some bristles and numerous setae, some of them forming a longitudinal row. Mediotergite, metepisternum and metepimeron all bare. Scutum evenly setose, prescutal suture and transverse suture both absent. Scutum with several lateral bristles, two at posterolateral margin notably

strong; scutum posteriorly with 3 pairs of erect, median bristles, of which posterior pair is particularly strong. Scutellum with a pair of very strong, erect bristles and a pair of lateral setae.

Wings. Darkened on apical fourth or with a dark, transverse band. Membranes on both sides densely clothed with minute trichia. Subcostal sclerite large, ovate, with some setae. Stem vein with several setae. Distal median plate bare. Costa not produced beyond apex of $R_{4+5}$. Sc long, approaching costa in strongly acute angle. Basal portion of Sc with some ventral setae, beyond h bare. Crossvein Sc-r absent. $R_1$ short, about half as long as crossvein r-m. Rs short, nearly vertical. Media with very short common stem. Two cubital veins with common stem, point of furcation before that of media. Basal portion of $CuA_1$ atrophied; $CuA_2$ slightly sinuous. $M_2$ and $CuA_1$ both falling short of wing margin. Basal portion of M and CuA meet well in front of distal median plate, forming a short common stem. Anal vein well developed. CuP a distinct fold between anal vein and stem of cubital fork. Except for the short common stem of CuA and M, all veins, including anal vein with numerous dorsal setae. $R_1$ and $R_{4+5}$ even with ventral setae.

Legs. Stout. Tibial trichia arranged in rows, most distinct on apical half. Fore leg with tibia distinctly shorter than femur. Mid and hind tibiae with several strong bristles, each longer than tibial diameter, situated posterodorsally and anterodorsally; mid tibia also with some strong ventral setae. Spurs well developed. Empodium broad, well developed. Two tarsal claws, each with one large and one minute ventral tooth.

Abdomen. Segments 1-8 with discrete, setose tergites and sternites in both sexes. Sternites without longitudinal fold lines.

Male terminalia. Rotated 180° in all studied specimens. Cerci thin and extremely long. Hypoproct medially divided with several apical setae. Tergite 9 extremely long and entirely divided medially; basalmost lateral portion coalesced with gonocoxite. Each of two lateral lobes of tergite 9 with median, brush-like collection of thin, blunt setae. Fused tergite 9 and gonocoxite with strong dorsolateral bristles. Gonocoxites completely fused ventrally, each with three ventrolateral to mediodorsal protrusions. Gonostylus small, situated submedially, apparently immovably fused with gonocoxite. Aedeagus large, bare, accompanied by well developed ventral process.

Female terminalia. Gonocoxites 8 entirely fused with posterior portion of sternite 8, medially separated by narrow cleft. Tergite 8 laterally attached to anterodorsal border of sternite 8. Tergite 9 well developed. Tergite 10 narrow. Anterior portion of sternite 10 attached to lateral portion of tergite 10, posteriorly narrowed. Two spermathecal ducts joining well before spermathecal eminence. Dorsal membrane of proctiger partly fused with tergite 10. Cerci small, one-segmented. Hypoproct with several projecting setae laterally.

*Systematics.* – Based on the presence of a long subcosta, a short $R_1$, several strong tibial bristles, and an entirely reduced median ocellus the new genus is attributed to the tribe Leiini. The latter character is not found in all Leiini, but present in *Acrodicrania,* in an undescribed species of *Allactoneura,* in *Anomalomyia, Clastobasis, Leiella,* and in the highly apomorphous *Thoracotropis.* Likewise, the presence of numerous recurved strong bristles behind the hind margin of the eye is found in several genera of Leiini, e.g. *Allactoneura, Acrodicrania, Anomalomyia, Leiella, Procycloneura* and *Neoclastobasis.*

The combination of strong, recurved bristles behind the eyes and a regular arrangement of the tibial trichia makes *Sticholeia* key out as *Eumanota* (subfamily Manotinae) in most available keys. However, the strong tibial bristles will separate the new genus from members of the Manotinae.

### *Sticholeia cheesmanae* sp. n.

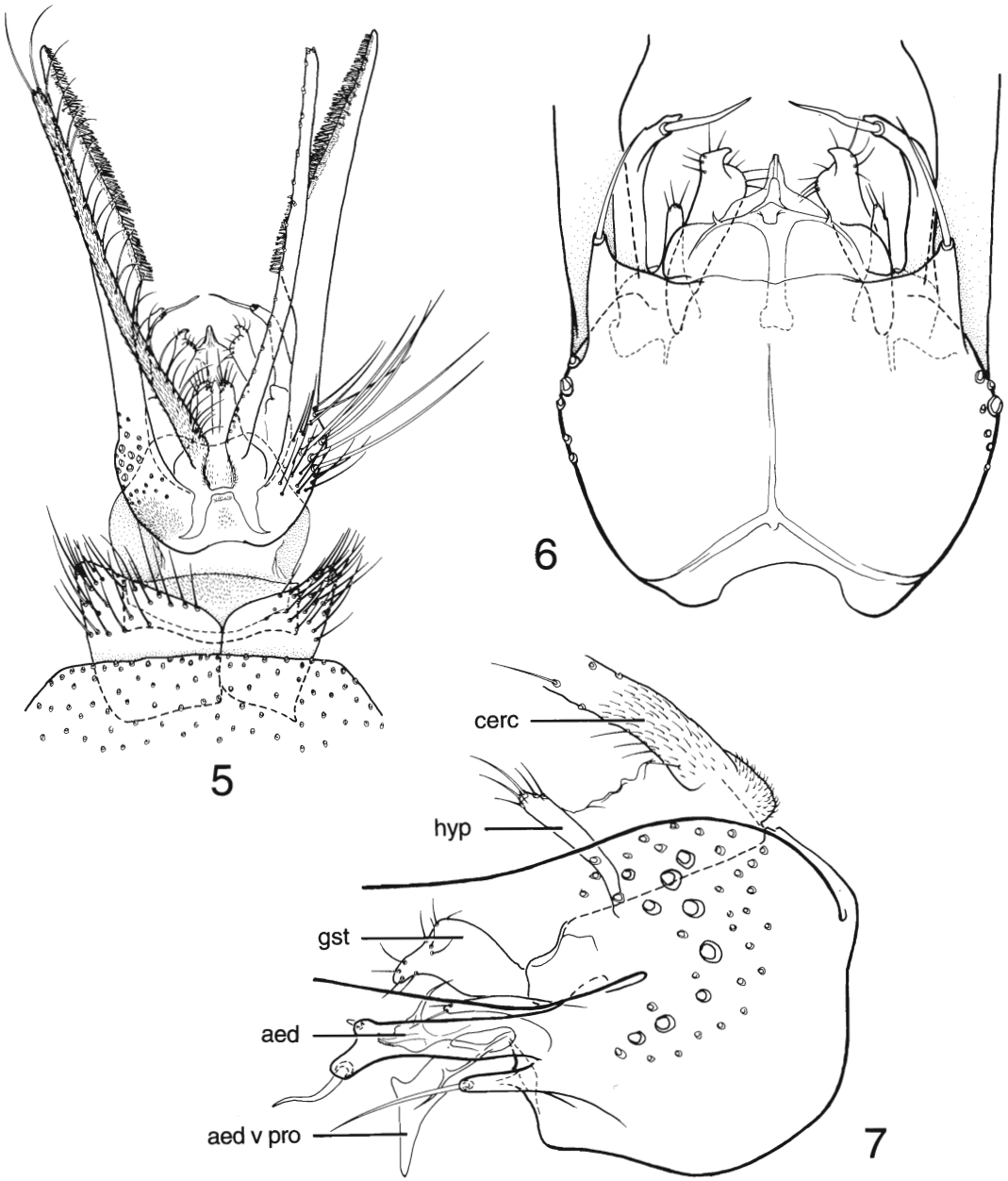
(Figs 1-7, 11, 12)

*Types.* – Holotype ♂: Vanuatu, Malekula, Ounua, ii.1929, L. E. Cheesman (BM 1929-234). Paratypes: 2♂ 2♀, as for holotype; Vanuatu, Malekula, Ounua, 1♂ 3♀ iii-iv.1929, L. E. Cheesman (BM 1929-343); Vanuatu, Malekula, 1♂, i.1930, L. E. Cheesman (BM 1930-178) (slide mounted); Espíritu Santo, 2♂ viii.1929, L. E. Cheesman (BM 1929-514) (one male slide mounted); Espíritu Santo, 1♂ 1♀ viii-ix.1929, L. E. Cheesman (BM 1929-537). All BMNH.

*Etymology.* – Named after L. E. Cheesman who collected all, except one of the studied specimens of *Sticholeia.*

*Diagnostic characters.* – Mesonotum amber-coloured with median stripe and posterolateral corners brown. Males separable from *dolichostyla* by the much shorter terminalia, being much shorter than the abdomen.

*Description.* – Male (n=5). Total length 3.00-3.50




Figs 5-7. Male terminalia of *Sticholeia cheesmanae* sp. n.: (5) dorsal view; (6) ventral view; (7) lateral view. Abbreviations: aed, aedeagus; aed v pro, aedeagus, ventral process; cerc, cercus; gst, gonostylus; hyp, hypoproct.

mm. Wing length 2.90-3.00 mm. Wing length to length of profemur 2.95.

Colouration. Head amber to yellowish; ocelli bordered by dark brown markings. Mesonotum amber with median stripe and posterolateral corners brown. Legs yellowish; hind coxa somewhat

darker. Wings with a brown band on apical fourth. Abdominal segments 1-4 amber; segments 5 and 6 brown. Terminalia yellowish.

Head (Figs 3, 4). Face twice as broad as long. Clypeus slightly longer than broad, somewhat pointed apically. Stipes ovate, weakly sclerotized, each with 2-3 setae. Palpomere ratios 1 : 1 : 2.5 : 5.3 : 5.4.

Thorax (Fig. 2). Length of mesonotum 1.08-1.18 mm.

Wings (Fig. 1). Total length 1.6-1.7 times as long as distance from distal median plate to apex of $R_1$. Crossvein r-m 1.3-1.6 times as long as $R_1$. Stem of median fork 0.2-0.3 times as long as crossvein r-m. Stem of cubital fork 0.55-0.60 and 0.85 times as long as $CuA_1$ and $CuA_2$, respectively.

Legs. Ratio femur to tibia for legs 1 to 3: 1.25-1.35; 0.95-1.00; 0.85. Ratio tibia to first tarsomere for legs 1 to 3: 0.70-1.00; 1.10-1.15; 1.45-1.50. Spur lengths for legs 1 to 3 in relation to tibial diameter, measured apically: 2.6-3.0; 2.5-3.0, 5.2-5.7; 2.7-3.3, 5.3-6.2.

Abdomen. All abdominal segments, except sternite 8 with setae. Tergite 7 about 0.7, and tergite 8 about 0.8 times as long as tergite 6. Sternite 7 about 0.7, and sternite 8 about 0.3 times as long as sternite 6. Sternite 8 narrow. Tergite 8 broad, with shallow posterior incision.

Terminalia (Figs 5-7). Cerci thin and very long; numerous curved setae medially. Hypoproct medially divided, elongated with numerous straight apical setae. Apical median half of each lobe of divided tergite 9 with continuous distribution of thin, blunt setae. Fused gonocoxites with a pair of lateroventral, basally broad protuberances, each provided with an apical bristle. Situated just above these, a second pair of longer protuberances, each bearing a curved bristle and a very short, blunt bristle. More medially, a third pair of small protuberances, each with a few apical setae.

Female (n = 5). Total length 3.25 - 4.00 mm. Wing length 3.10-3.50 mm. Total length to length of profemur 3.00-3.25.

Colouration. In general somewhat darker than males. Wings with apical third distinctly darkened. Abdominal segments 1-4 amber with dark posterior margins; segments 5 and 6 brown.

Thorax. Length of mesonotum 1.15-1.25 mm.

Wings. Total length 1.70-1.80 times as long as distance from distal median plate to apex of $R_1$. Crossvein r-m 1.40-1.75 times as long as $R_1$. Stem of median fork 0.2-0.3 times as long as crossvein r-m. Stem of cubital fork 0.45-0.55 and 0.70-0.85 times as long as $CuA_1$ and $CuA_2$, respectively.

Legs. Ratio femur to tibia for legs 1 to 3: 1.25-1.40; 0.95-1.05; 0.85-0.90. Ratio tibia to first tarsomere for legs 1 to 3: 0.85-0.90; 1.05-1.15; 1.45-1.50. Spur lengths for legs 1 to 3 in relation to tibial diameter, measured apically: 2.8-3.6; 3.0-3.3, 5.6-6.3; 3.0-3.3, 6.2-6.7.

Terminalia (Figs 11, 12). Fused gonocoxites and sternite 8 about 1.9 times as broad as long. Each gonocoxite evenly rounded posteriorly. Tergite 8 distinctly narrowed laterally, about 3.8 times as broad as long. Tergite 9 about 2.8 times as broad as long. Tergite 10 seemingly medially divided, forming two lateral sclerites. Sternite 10 ending beyond apices of cerci. Cercus rounded. Hypoproct with several straight setae.

### *Sticholeia dolichostyla* sp. n.

(Figs 8-10, 13, 14)

*Types.* – Holotype ♂: Mt. Nomo, S. of Mt. Bougainville (700 ft.), ii.1936, L. E. Cheesman (BM 1936-271). Paratypes: Papua New Guinea, Kokoda (1.200 ft.), 1♀ vii.1933, L. E. Cheesman (BM 1933-427) (slide mounted); Papua New Guinea, Kokoda (1.200 ft.), 1♂ ix-x.1933, L. E. Cheesman (BM 1933-427) (slide mounted); Indonesia, Irian Jaya (New Guinea), Waigeu. Camp Nok. (2.500 ft.), 1♀ v.1938, L. E. Cheesman (BM 1938-593) (slide mounted). All in BMNH.

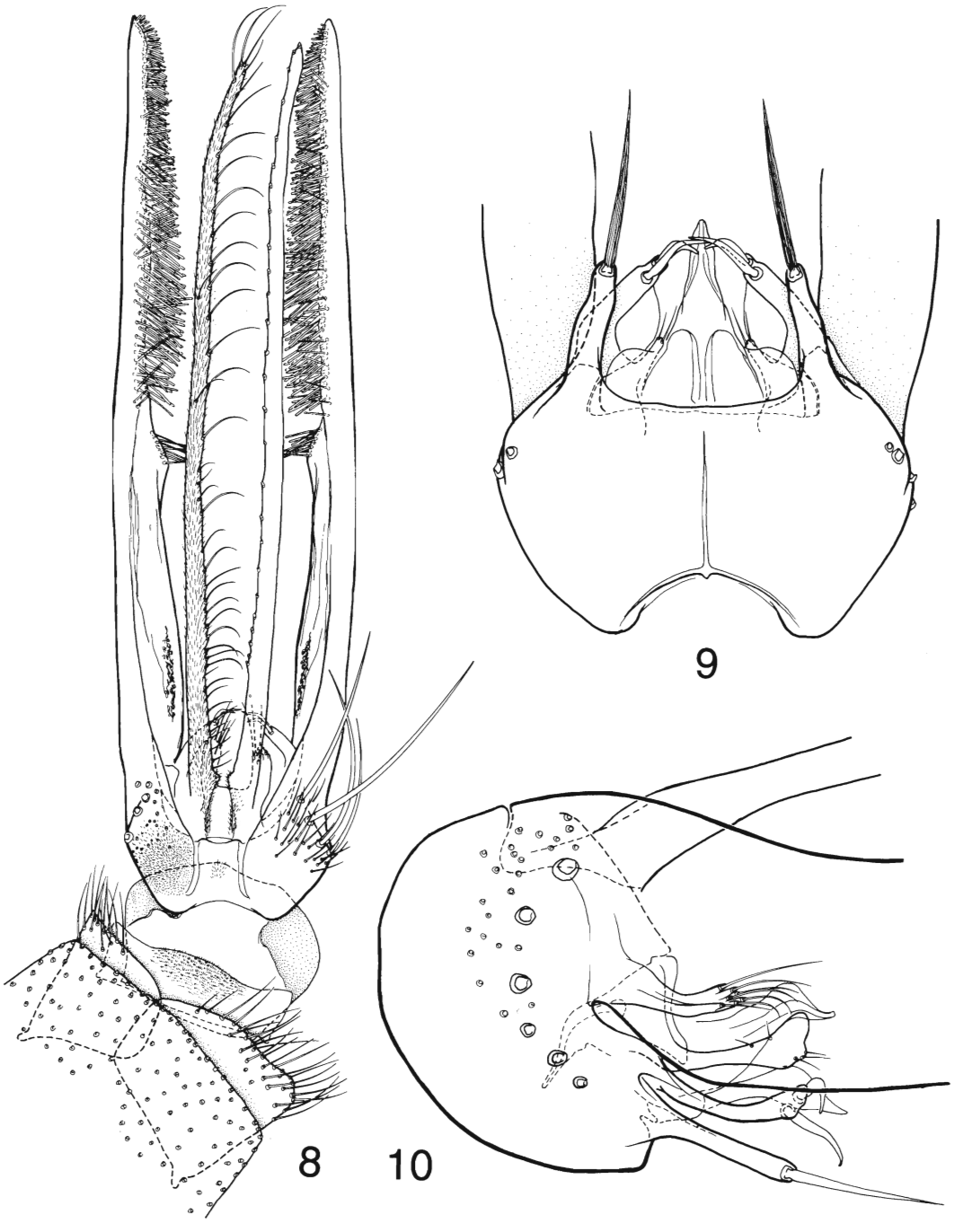
*Etymology.* – From Greek, *dolichos*, long, and *stylos*, a style, referring to the armature of the male terminalia.

*Diagnostic characters.* – Brown colour of mesonotum confined to median brown stripe. Males readily identified on the extremely elongated terminalia, being about same length as remaining abdomen.

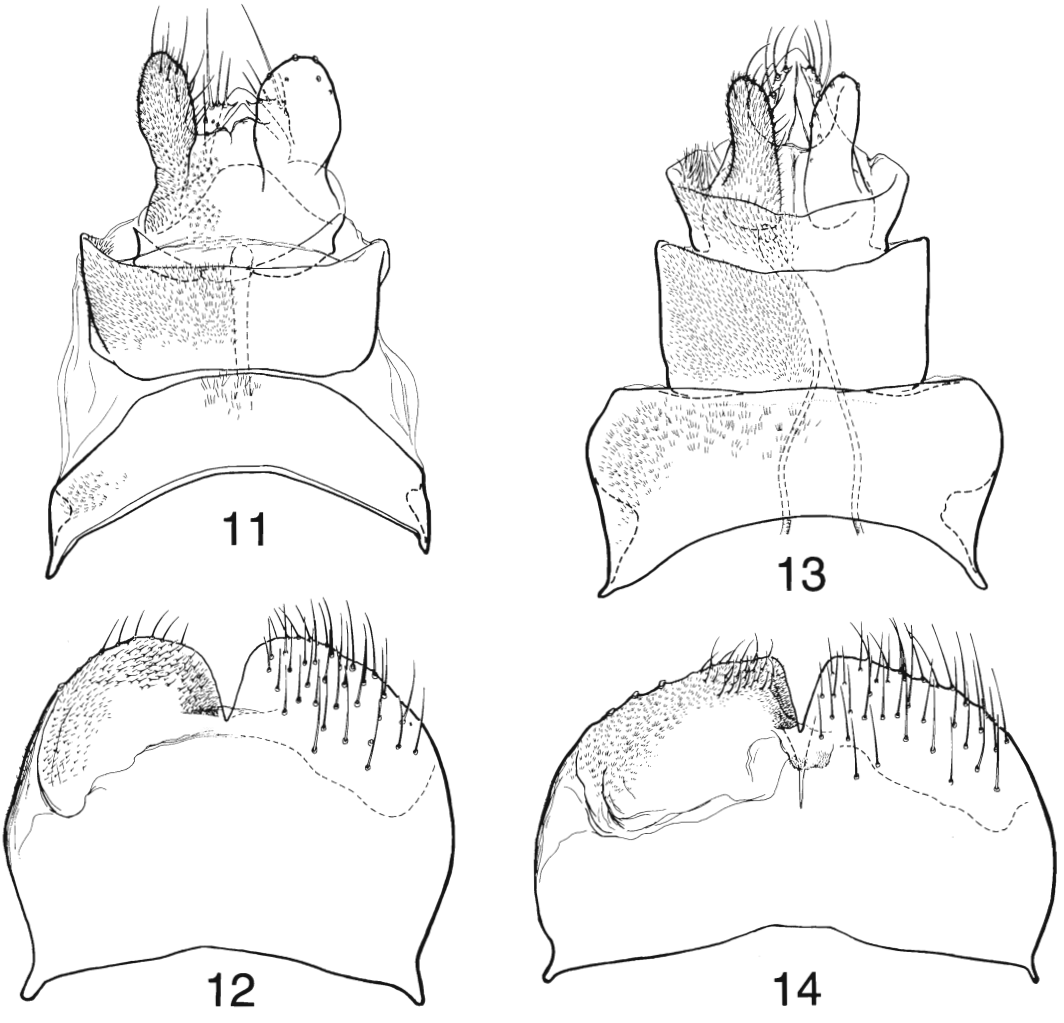
*Description.* – Male (n=2). Total length 3.50 mm (n=1). Wing length 3.40-3.45 mm. Wing length to length of profemur 3.15.

Colouration. Head amber to yellowish; ocelli bordered by dark brown markings. Mesonotum amber with a median brown stripe. Legs yellowish. Wings with apical fourth somewhat darkened. Abdominal segments 1-4 amber; segments 5 and 6 brown. Terminalia yellowish.

Head. Face about twice as broad as long. Clypeus about as long as broad, somewhat pointed apically. Stipes ovate, weakly sclerotized, each




Figs 8-10. Male terminalia of *Sticholeia dolichostyla* sp. n.: (8) dorsal view; (9) ventral view; (10) lateral view.




Figs 11-14. Female terminalia of *Sticholeia cheesmanae* sp. n. (11, 12) and *S. dolichostyla* sp. n. (13, 14): (11, 13) tergites 8-10 and proctiger, dorsal view; (12, 14) fused sternite 8 and gonocoxites 8, left side in dorsal view, right side in ventral view.

with 3-4 setae. Palpomere ratios 1:1:2.9:5.7:6.9.

Thorax. Length of mesonotum 1.20-1.25 mm.

Wings. Total length 1.55-1.65 times as long as distance from distal median plate to apex of $R_1$. Crossvein r-m 1.40-1.65 times as long as $R_1$. Stem of median fork 0.2-0.3 times as long as crossvein r-m. Stem of cubital fork 0.50 and 0.70 times as long as $CuA_1$ and $CuA_2$, respectively (n=1).

Legs. Ratio femur to tibia for legs 1 to 3: 1.20-1.35; 0.95-1.00; 0.85-0.90. Ratio tibia to first tarsomere for legs 1 to 3: 0.85-0.95; 1.10-1.15; 1.35-1.45. Spur lengths for legs 1 to 3 in relation to tibial diameter, measured apically: 3.0-3.2; 3.0, 6.2; 3.0-3.3, 6.3-6.8.

Abdomen. Tergites 7 and 8 subequal in length, about 0.7 times as long as tergite 6. Sternite 7 about 0.8, and sternite 8 about 0.3 times as long as sternite 6. Tergite 8 rather broad with evenly curved posterior margin. Sternite 8 bare.

Terminalia (Figs 8-10). Cerci thin and extremely long; numerous curved setae medially. Hypoproct medially divided, elongated with numerous curved apical setae. Apical half of each lobe of divided tergite 9 medially with a small, proximal group of setae separated from continuous distal row of thin, blunt setae. Fused gonocoxites with one pair of submedial, finger-like protuberances, each with an apical bristle. Above these a second pair of elongated protuberances, each bearing two apical, curved bristles. Mediobasally, a third pair of small protuberances, each with two apical setae.

Female (n=2). Total length 3.80-3.95 mm. Wing length 3.75-3.80 mm. Wing length to length of profemur 3.00-3.20.

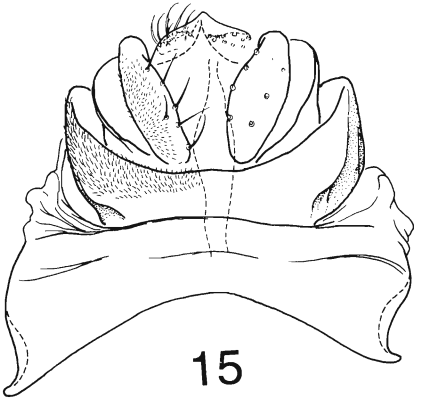
Colouration. Abdominal segments 1-3 amber; posterior segments somewhat brownish.

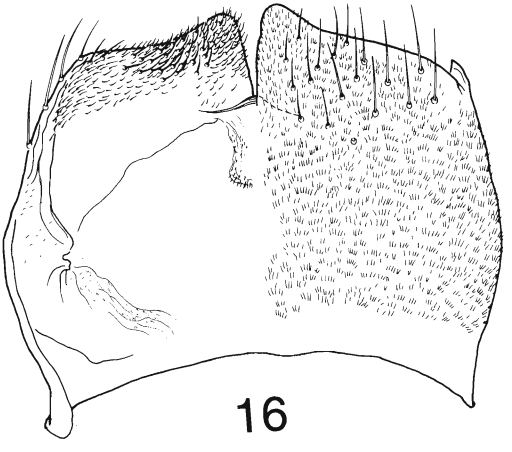
Thorax. Length of mesonotum 1.25-1.30 mm.

Wings. Total length 1.60 times as long as distance from distal median plate to apex of $R_1$. Crossvein r-m 1.25-1.35 times as long as $R_1$. Stem of median fork 0.3 times as long as crossvein r-m. Stem of cubital fork 0.50 and 0.70-0.75 times as long as $CuA_1$ and $CuA_2$, respectively.

Legs. Ratio femur to tibia for legs 1 to 3: 1.35; 1.05; 0.80-0.85. Ratio tibia to first tarsomere for legs 1 to 3: 0.90; 1.15; 1.45. Spur lengths for legs 1 to 3 in relation to tibial diameter, measured apically: ?; 3.2, 6.2-6.5; 3.0-3.2, 6.3-6.8.

Terminalia (Figs 13, 14). Fused gonocoxites and sternite 8 about 1.4 times as broad as long. Each gonocoxite with a distinct angle posteromedially. Tergites 8 subquadrate, about 3.3 times as broad as long; posteromedial border weak. Tergite 9 about as long as tergite 8, 2.4 times as broad as long. Tergite 10 well developed, about 0.5 times as long as tergite 9. Sternite 10 ending well before apices of cerci. Cercus slightly tapered. Hypoproct with several curved setae.




Figs 15-16. Female terminalia of *Sticholeia* sp.: (15) tergites 8-10 and proctiger, dorsal view; (16) fused sternite 8 and gonocoxites 8, left side in dorsal view, right side in ventral view.

### *Sticholeia* sp.

(Figs 15, 16)

*Material.* – Indonesia, Bogor, 1♀ 16.iv.1954, A. H. G. Alston (BM 1954-414) (slide mounted). BMNH.

*Remarks.* – The specimen is in poor condition with the antennae and most legs missing.

*Description.* – Female (n=1). Total length 3.90 mm. Wing length 3.24 mm.

Colouration. Head amber to light brown. Thorax brown. Legs yellowish except for light brown coxae and brown hind femur and base of hind coxa. Abdomen brown.

Head. Face 1.6 times as broad as long. Clypeus as long as broad, somewhat pointed apically. Stipes ovate, weakly sclerotized, each with 3-4 setae. Palpomere ratios 1 : 1.1 : 3.9 : 6.8 : 8.2.

Thorax. Length of mesonotum 1.13 mm.

Wings. Total length 1.85 times as long as distance from distal median plate to apex of $R_1$. Crossvein r-m 1.35 times as long as $R_1$. Stem of median fork 0.4 times as long as crossvein r-m. Stem of cubital fork 0.60 and 0.80 times as long as $CuA_1$ and $CuA_2$, respectively.

Legs. Ratio femur to tibia for legs 2 and 3:

1.03; 0.92. Ratio tibia to first tarsomere for leg 2: 1.17. Spur lengths for legs 2 and 3 in relation to tibial diameter, measured apically: ?, 6.8; 3.7, 6.6.

Terminalia (Figs 15, 16). Fused gonocoxites and sternite 8 slightly broader than long, each gonocoxite somewhat tapered posteromedially. Tergite 8 subquadrate, about 2.7 times as broad as long; posteromedian border weak. Tergite 9 about 3.0 times as broad as long. Lateral portions of tergite 10 well developed, median portion reduced. Sternite 10 ending well beyond apices of cerci, broadly tapered. Cercus broad, rounded. Hypoproct very obtuse, with several curved setae.

## Discussion

The combination of strong, recurved bristles behind the eyes, total reduction of median ocellus, and strongly developed proepimeron and basisternum suggest that *Sticholeia* is most closely related to the four genera *Allactoneura, Acrodicrania, Anomalomyia* and *Leiella*. Like *Allactoneura* and *Leiella*, *Sticholeia* has a very short stem of the median fork and a costa not produced beyond the tip of $R_{4+5}$. In *Allactoneura* and *Leiella* the abdomen is densely clothed by scale-like setae, a character not present among other Mycetophilidae. Available evidence thus suggests that *Sticholeia* is the sistergroup of *Allactoneura* and *Leiella* combined.

In order to reinstate the tribe Allactoneurini, Zaitzev (1981) listed seven characters supposed to delineate *Allactoneura* from other genera in the Leiini. Two of these apply to the anapleural and pleural sutures which, however, are highly variable among the Leiini, and an outline very similar to that of *Allactoneura* is found in other genera. Neither are the enlarged proepimeron and basisternum unique for *Allactoneura*. A nearly identical outline of the proepimeron is present in *Leiella* and *Sticholeia* and is also approached in genera such as *Acrodicrania* and *Anomalomyia*. The same genera also have a large, exposed basisternum. The three last characters listed by Zaitzev apply to the wing venation ($R_1$ relatively long; r-m short and nearly vertical; proximal part of Rs horizontal). These characters may all be functionally related to the unique ability of longitudinal wing-folding in *Allactoneura*. The proximal prolongation of Rs may stem from a secondary sclerotization of a longitudinal fold-line.

In conclusion, *Allactoneura* is presently regarded as a typical member of the Leiini. Accordingly, the tribe Allactoneurini should be rejected.

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