

BLATTIDAE

collected by H. R. H. Prince Leopold of Belgium
during a tour in the East

PRELIMINARY DIAGNOSES

BY

R. HANITSCH

***Mareta longe-alata* n. sp.**

1 ♂, Angi Gita, New Guinea, 10-3-1929.

1 example (sex? abdomen mutilated), Bireun, Sumatra, 2-5-1929.

PRINCE LÉOPOLD.

♂. — The deeply divided sub-genital lamina, the armature of the front femora with piliform spines only, its greyish-testaceous colour combined with its long tegmina and wings, sufficiently characterize this insect both generically and specifically.

Head exposed, indistinctly mottled darker and lighter fusco-testaceous; eyes apart the distance between the antennal sockets; antennae testaceous. Pronotum broad, widest behind the middle; anterior and posterior margins straight, sides curved; disk dull testaceous, with confused darker blotches; lateral margins very broad, hyaline. Tegmina much exceeding the abdomen, semi-hyaline testaceous, a short dark-brown humeral stripe; 15 costals, of which the 10th is 4-ramose, the 11th to 14th forked; radial forked from 2/3 of its base; 10 slightly oblique discoidal sectors; veins of distal parts with minute nodes, each bearing a diminutive bristle (1). Wings large, hyaline; mediastinal vein 3-ramose, ends thickened; 10 costals, of which the 6th and 7th are multi-ramose, the 10th forked, the others simple; radial vein simple; median vein at 2/3 of its course giving off an incomplete branch towards the radial, its main trunk terminally forked; ulnar with 6 branches, of which the last is incomplete; apical triangle inconspi-

(1) As in *Margattea setifera* HANITSCH, from Sumatra; *Arkiv. för Zoologi*, vol. XXIa, n° 2, p. 14 (1929).

cuous. Body above testaceous, lateral margins blackish; supra-anal lamina triangular; cerci testaceous. Body below dull testaceous, with marginal blackish blotches; sub-genital lamina deeply divided, each half with a short style. Legs testaceous; anterior femora armed with piliform spines only.

♂. — Total length, 19 mm.; body, 11 mm.; pronotum, 3 × 4 mm.; tegmina, 15 mm.; wings, 14 mm.

I have before me a long series of this species, taken by Karny and Siebers at Wai Lima, S. Sumatra (Nov.-Dec. 1921), showing an interesting variation in the colouring of tegmina and wings. In some specimens the tegmina present a distinctly tessellate orange pattern, and the ends of the more distal costal veins a black infiltration, whilst the wings may be fuscous, instead of colourless. Important is that of the specimens from Wai Lima which I have examined, none show a branched median vein of the wing, and the rami of the ulnar vein are all complete. The condition of the median and ulnar veins in the wings of the type can therefore not be regarded as of specific value. However, in *Mareta arborescens* mihi, which I recently described from Java, the median vein of the wing is also 3-ramose, and two of the six rami of the ulnar vein are incomplete (*Stettiner Entom. Zeit.*, vol. XCI [1930], p. 183, fig. 2 and 3).

***Parasignoidella marginalis* n. sp.**

1 ♂, New Guinea (no further particulars).

1 ♀, Siwi, New Guinea, 8-3-1929, PRINCE LÉOPOLD.

♂. — Head free, shining black; eyes apart 3/4 the distance between the antennal sockets; antennae (mutilated) fuscous, Pronotum broad, widest behind the middle, anterior and posterior margins nearly straight, sides slightly curved; disk fusco-castaneous; anterior and lateral margins broad, yellowish hyaline. Tegmina exceeding the abdomen by 1/3 of their length, dark amber, mediastinal area whitish hyaline; radial vein bifurcate at 3/4 from the base, 21 costals, posterior branch of radial distally forked; 6 longitudinal discoidal sectors; anal area long, narrow, anal sulcus sharply defined; 4 anal veins, broad, diffused. Wings dark fuscous; mediastinal vein 3-ramose; radial vein simple, 16 costals, black, thickened, but not clubbed; median vein weakly sigmoid, simple; ulnar vein weakly sigmoid, with 2 complete branches and one incomplete; cross-venules strongly marked; apical triangle well-developed. Abdomen above and below dark fuscous to black; cerci dark fuscous; sub-genital lamina (♂) transversely oval, poste-

riorly triangular produced; styles small, situated near the middle of each side. Legs light fuscous; anterior femora with 3 heavy spines near the centre, followed by a row of piliform spines (type B); distally 2 heavy spines.

♂. — Total length, 11.5 mm.

♀. — Similar to the ♂. Sub-genital lamina large, shining black.

Liosilphoidea n. g.

STAL, in *Bih. Svensk. Akad.*, vol. II (13), p. 10 (1874) erected the genus *Liosilpha* to include certain species in which the supra-anal lamina both of the ♂ and the ♀ is emarginate at the apex, and in which the anterior femora are armed after type A, with *Blatta pumicata* STAL (*Eugenie's Resa, Orthoptera*, p. 309, [1858]), from Rio Janeiro, Brazil, as genotype.

SHELFORD, in *Genera Insectorum, Phyllodromiinae*, p. 16 (1908) defines *Liosilpha* as "Broad, convex insects. Tegmina short, scarcely exceeding apex of abdomen, their venation often obsolete in the anal and discoidal fields, marginal field broad. Wings with a minute apical triangle or none, ulnar vein multiramosa. Femora strongly armed. Sub-genital lamina of male with large, asymmetrical and strongly chitinated styles". Besides *Blatta pumicata* STAL, he places under this genus:

Blatta curta WALKER, from the Congo,

Blatta anomala SAUSSURE, from Gaboon,

Pseudoectobia Alluaudi SHELF., from Madagascar, and

Phyllodromia (?) japonica SHELF., from Japan.

Later, in *Entom. Mo. Mag.* (2), vol. XXII (1911), p. 156. SHELFORD says: "*Liosilpha pumicata* STAL, the type of *Liosilpha*, is a very broad, short and rather convex species, with the discoidal sector of the tegmina oblique, the ulnar vein of the wings ramose, no apical triangle, and the front femora armed after type A; the tegmina and wings do not exceed the apex of the abdomen, and the species has very much the appearance of an *Allacta*".

In *J. Malay Br. R. Asiat. Soc.*, vol. I (1923), p. 416-417, I described three new species which I took to belong to this genus, viz.

Liosilpha lata, from the Malay Peninsula and Sarawak,

Liosilpha longe-alata, from Java, and

Liosilpha picea, from Sarawak.

In *J. Siam Society*, vol. VII (*Nat. Hist. Suppl.*), p. 17, fig. 5, 9 et 10 (1927), I added a new species, *Liosilpha vittata*, from S. Annam,

and in *Bulletin, Raffles Museum*, n° 1 (1928), p. 28, *Liosilpha angustior*, from the Mentawai Islands.

I now find that *L. picea* has nothing to do with *Liosilpha* STAL, and has to be removed to the subfamily Blattinae, whilst *L. vittata* is better placed under *Margattea* SHELFORD, near *M. contigua* WALKER. The three other species, however, closely approach *Liosilpha*, being broad and convex insects, with the anterior femora armed after type A, and with strongly chitinated styles, but they differ from it by the presence of a well-developed apical triangle, and by the supra-anal lamina in both sexes being entire, not emarginate. I regard this as a new genus and propose the name *Liosilphoidea* for it.

Stictolampra n. g.

STAL (*Bihang, Svenska Vet. Akad. Handl.*, vol. II, n° 13, p. 10 [1874]), BRUNNER (*Annali Mus. Civ. Stor. Nat. Genova* [2] vol. XIII, p. 24 [1893]), SHELFORD (*Genera Insectorum, Epilamprinae*, p. 2 [1910]) and HEBARD (*Proc. Acad. Nat. Sc.*, Philadelphia, vol. LXXXI, p. 88 [1929]), all suggest the possibility of dividing *Epilampra* BURMEISTER, into two sections, according to whether the pronotum is smooth or punctured. Even if no additional characters should be found, it will be helpful to accept their suggestion and thus at least slightly break up this unwieldy genus.

I therefore propose retaining the name *Epilampra* for the species with a smooth pronotum and erecting a new genus, *Stictolampra*, for those in which the pronotum is punctured.

The great majority of the oriental species of *Epilampra* would remain under that genus, as having a smooth pronotum, whilst the following would come under *Stictolampra*.

E. lurida BURMEISTER (= *E. cribricollis* SERV.),

E. Saussurei KIRBY (= *E. puncticollis* SAUSSURE), A. M. N. H. (7), vol. XII, p. 277 (1903), from China,

E. funebris HANITSCH. (*J. M. B. R. As. Soc.*, vol. I, p. 427 [1923]), from the Batam River, Borneo,

E. Moultoni HANITSCH. (loc. cit., p. 429, figs. 19 and 20), also from the Baram River.

The Oxford University Museum contains two other species with strongly punctured pronotum, a ♀, from New Guinea, doubtfully named by SHELFORD "♀ *Epilampra Keraudrenii* LE GUILLON" (*Rev. Zool.*, p. 292 [1841]), and a ♂, from Sarawak, which, after comparison with the Paris Museum, he had labelled "*E. Doleschali* BRUN-

NER ?" (*Nouv. Syst. Blatt.*, p. 194 [1865]). But as the descriptions of these two species do not mention a punctured pronotum, their identification seems unsafe.

The present collection contains two species, both from New Guinea, which plainly come under *Stictolampra*.

***Stictolampra trilineata* n. sp.**

1 ♂, New Guinea.

♂. — Head exposed, testaceous, reddish suffused; occiput and vertex with 3 very distinct reddish-castaneous longitudinal lines which between the lower part of the eyes fuse to form a reddish-castaneous patch, spreading to nearly the base of the labrum; eyes apart by $1/2$ the inter-antennary distance; antennae brownish. Pronotum sub-elliptical, posterior margin obtusely angled; coarsely punctured; disk castaneous, the colouring spreading to the anterior and posterior margins, the latter with 8 elongated blackish maculae; lateral margins pale testaceous, with scattered deep-orange maculae. Tegmina exceeding the abdomen by nearly $1/3$ their length, deeply punctured in the anal area, less so elsewhere; testaceous, speckled with numerous large and small blackish-brown blotches, and with a broad black humeral stripe, enclosing 3 or 4 pale testaceous spaces. Wings fully developed. Supra-anal lamina entire, pale orange. Cerci stout, dull orange, with black tips. Body below shining golden amber, darker posteriorly; sub-genital lamina slightly asymmetrical (shrunk?) sub-oval, left half more fully developed, styles small, pale amber. Legs brownish amber; anterior femora on the inner margin with 4 stout spines, followed by a series of widely spaced piliform spines; posterior femora with 3 stout spines on the inner margin, and two genicular spines; posterior metatarsus about equal in length to the succeeding joints together, entirely spined, pulvillus minute; tarsal joints sparsely spined, pulvilli minute; tarsal claws symmetrical, arolia present.

♂. — Total length, 36 mm.; body, 25 mm.; pronotum, 7×9 mm.; tegmina, 31 mm.

***Stictolampra brevipennis* n. sp.**

1 ♀, Sakoemi, New Guinea, 2-3-1929, PRINCE LÉOPOLD.

♀. — Head exposed, testaceous, occiput with two ill-defined blotches of castaneous; vertex testaceous; upper half of face black, punctured, lower half testaceous; eyes apart by nearly the inter-antennary distance; antennae (mutilated) fuscous. Pronotum broad, anterior

margin parabolic, posterior margin very obtusely angled; deeply and closely punctured; testaceous, minutely dotted with brown, leaving free a pale yellowish design on the disk; a few black maculae along the anterior margin and six large black blotches on the posterior margin. Tegmina shorter than the abdomen, reaching only to the middle of the sixth segment; apex rounded; closely punctured, especially in the anal area; testaceous, with numerous deep castaneous blotches. Wings shorter than the tegmina, only just exceeding the fourth segment. Abdomen above mottled testaceous and castaneous, a series of longitudinal black lines along the posterior margin of each segment. Supra-anal lamina semi-orbicular, a minute median indentation on the posterior border. Cerci short, stout, testaceous. Abdomen below testaceous, on either side a broad sub-marginal black stripe, on the sub-genital lamina the two fusing to a narrow median black stripe. Legs for the greater part fusco-testaceous, with certain parts shining black, viz., the proximal portion of the anterior femora, the median coxae and partly the median femora, and the posterior femora; anterior femora on the inner side with 4 large spines, followed by about 12 piliform spines and a single apical spine; posterior metatarsus longer than the succeeding joints taken together, entirely spined; 1st, 2nd and 3rd tarsal joints also spined; all pulvilli terminal; tarsal claws symmetrical; arolium present.

♀. — Total length, 20 mm.; pronotum, $5,8 \times 8,5$ mm.; tegmina, 11 mm.

***Pseudoplatia* n. g.**

Broad, flat. Head free; ♀ with rudimentary tegmina only, and no wings (♂ unknown); posterior metatarsus shorter than the succeeding joints, armed, pulvillus terminal; tarsal joints not armed.

This genus had quite the appearance of *Opisthoplatia* BRUNNER, but differs from it by the head being free, by the ♀ being without wings (♂ unknown), and by the posterior metatarsus being much shorter and its pulvillus terminal, whilst in *Opisthoplatia* the head is covered, the ♀ bears both tegmina and wings, though only rudimentary ones, like the ♂, the posterior metatarsus is equal in length to the succeeding joints, with the pulvillus very long, extending to the middle of the joint.

***Pseudoplatia atra* n. sp.**

3 ♀♀, Manoembai, Aru I. 26-3-1929. PRINCE LÉOPOLD.

♀. — Broad, flat, shining black. Head exposed, shining black, labrum and palps dull orange; eyes apart the distance between the

antennal sockets; antennae $2/3$ the length of the body, testaceous to dull orange. Pronotum with the anterior margin parabolic, posterior margin straight; shining black. Tegmina scale-like, sub-triangular, only barely exceeding the posterior border of the mesonotum, black. Wings absent. Abdomen above shining black, with the lateral margins of the posterior segments faintly deep-castaneous. Supra-anal lamina semi-orbicular, posteriorly with a shallow median emargination, dull orange; cerci black, tips rufous. Body below deep castaneous to black, posterior margin of sub-genital lamina entire. Legs dark castaneous; anterior femora with 5 spines each; posterior metatarsus $3/4$ the length of the succeeding joints together, spined for the greater part of its length, pulvillus terminal; tarsal joints unarmed; arolia large.

♀. — Total length, 33 mm.; pronotum, 8×13.5 mm.; tegmina, 4 mm.

The 3 ♀♀ specimens which I take to be full-grown, have superficially quite the appearance of *Opisthoplatia orientalis*. Burmeister, minus the orange margin of the pronotum of the latter, but can readily be distinguished by the generic characters given above.

Macrocerca n. g.

Allied to *Periplaneta* BURMEISTER, and to *Homalophilpha* STAL, but differing from either by the enormous cerci of the ♂. Antennae long and slender. Pronotum sub-orbicular, greatest width just behind the centre. Tegmina and wings of the ♂ much exceeding the abdomen, of the ♀ only barely so. Legs long, femora only sparsely spined, tibiae strongly armed, spines tri-seriately arranged. Tarsi long and slender, but less so than in *Periplaneta* and *Homalophilpha*.

Macrocerca Leopoldi n. sp.

2 ♂♂, 1 ♀, Angi Gita, New Guinea, 10-3-1929, PRINCE LEOPOLD.

♂. — Head covered, testaceous, a black bar on the vertex, filling the interocular space; eyes apart by less than $1/2$ the distance between the antennal sockets; antennae exceeding the body, brownish testaceous. Pronotum suborbicular, widest just behind the centre; disk dull orange, with a crescentic black line on either side and a pair of blackish dots near the middle; lateral margins broad, semi-hyaline. Tegmina greatly exceeding the abdomen, semi-hyaline, testaceous to pale amber, mediastinal and proximal part of costal area almost colourless, a brownish black humeral streak. Wings fully developed, anterior half pale

testaceous, mediastinal vein fuscous, other veins greenish-fulvous. posterior half almost colourless, veins dull fulvous. Abdomen above in front mottled testaceous and olive-brown, turning to nearly black behind; supra-anal lamina trapezoidal, $3/5$ as long as broad, posterior margin straight, entire; cerci enormous (missing in the ♂ paratype), slender, brownish, moderately setose. Abdomen below olive-brown, darker at the sides; sub-genital lamina similar to the supra-anal lamina, posterior margin straight, entire; styles symmetrical, large, weakly curved. Legs long, slender; right anterior femur unarmed, except for setae; left anterior femur with 1 spine; posterior femora weakly armed with a few spines in the distal half only, and with 2 genicular spines; posterior tibiae strongly armed, tri-seriately spined; posterior metatarsus equal in length to the succeeding joints together, entirely spined; tarsal joints with coarse setae only; pulvilli minute; arolia present.

The ♀ is very similar to the ♂ in colouring, but differs as follows: body shorter; pronotum slightly broader; tegmina and wings very much shorter, reaching to the apex of the abdomen only; cerci shorter.

	♂	♀
Total length	33 mm.	19 mm.
Body . . .	22 "	19 "
Pronotum . .	5.8×6.6 "	6×7.7 "
Tegmina . .	29 "	17 "
Wings . . .	26 "	14 "
Cerci . . .	8 "	5 "

Panesthia hamifera n. sp.

1 ♂, lac d'Angi Gita, New Guinea, 10-3-1929.

1 ♀, Bireun, Sumatra, 2-5-1929, PRINCE LEOPOLD.

♂. — Medium size, black. Head black (antennae missing). Pronotum in front with a broad sinus, a blunt horn on either side; disk deeply depressed, behind it a ridge with two tubercles; margins finely punctured, in the disk the punctures replaced by minute tubercles. Tegmina and wings black, much worn, their remnants not exceeding the metanotum. Abdomen above punctured, anteriorly only slightly, posteriorly deeply and coarsely so; outer margin of 7th abdominal segment with two shallow undulations, posteriorly drawn out into a tooth-like hook; posterior margin of supra-anal lamina with 9 crenulations, viz., a large one on either side, the others very shallow. Cerci with a brownish pubescence. Legs black, anterior femora unarmed.

♀. — Slightly larger than the ♂. Antennae black, stading to dark brown terminally. Anterior sinus of the pronotum shallower and the lateral cornua smaller than in the ♂. Tegmina and wings worn as in the ♂, the former distinctly castaneous in colour. Abdomen punctured and the posterior hook-like processes of the 7th segment as in the ♂. Supra-anal lamina with the two outer crenulations broader, but flatter than in the ♂. Anterior femora also unarmed.

	♂	♀
Total length . .	29 mm.	31 mm.
Pronotum length	6,5 "	6 "
" width	11 "	11 "

Nearest to a ♂ in the British Museum, from Ternate, measuring 28 mm. in length, labelled "*Panesthia serratissima* BRUNNER" which I take to be one of BRUNNER's paratypes, (*Nouv. Syst. Blatt.*, p. 394 [1865]). Besides in size, this particular specimen agrees with the ♂ of *Panesthia hamifera* by the conformation of the pronotum, the worn tegmina and the hook-like spine of the 7th abdominal segment, but it differs from it by its labrum being testaceous to light castaneous, instead of black, by its anterior femora bearing 2 spines each, and by the sides of the 7th abdominal segment showing hardly any undulations, which in our species are quite distinct. The type of *P. serratissima* is described as with the tegmina fully developed and, according to the measurements given, apparently slightly exceeding the abdomen.

The collection also contains five larvae, all entirely apterous, which I take to belong to *P. hamifera*, as at least the three larger and more developed specimens distinctly show the characteristic spine of the 7th abdominal segment. They show a considerable variation in the number of spines of the anterior femora, a condition not unusual in other species of *Panesthia* (see my paper in *Treubia*, vol. III, p. 214 [1923]).

	Length	Locality	Left femur	Right femur
♂	26 mm.	Siwi	2 spines	2 spines
♂	24 "	Siwi	2 "	3 "
♀	18 "	Bireun	0 "	1 "
♀	15 "	Siwi	2 "	1 "
♂	11 "	Bireun	0 "	0 "

Trois notes myrmécologiques

PAR LE

D^R F. SANTSCHI

1. — LES CREMATOGASTER JAPONAIS

Les Fourmis du genre *Crematogaster* du Japon sont mal connues et ont été mal identifiées jusqu'en ces derniers temps. Les derniers travaux de W. M. WHEELER sur les Fourmis de ce pays, un intéressant lot reçu dernièrement de M. Cho TERANISHI, les exemplaires de ma collection parmi lesquels se trouvent des types de FOREL, enfin, l'obligeance de M. H. DONISTHORPE qui a bien voulu examiner pour moi le type *Cr. laboriosa* au British Museum, tout cela m'a donné une vision nette des espèces et variétés de ce genre. J'en donne ici une clé analytique :

1. Massue des antennes de 2 articles. Pétiole rectangulaire. Postpétiole sans sillon. (S.-g. *Orthocrema*) 2.
- Massue antennaire de 3 articles. Pétiole trapézoïdal. Postpétiole pourvu d'un sillon médian. (S.-g. *Acrocoelia*) 3.
2. Jaunâtre, gastre faiblement rembruni au bout. Long. : 2,5 mm. *sordidula* NYL. st. *osakensis* FOR.
- Jaunâtre, gastre entièrement brun. . . st. *osakensis* v. *japonica* FOR.
3. Mésonotum convexe, non bordé latéralement, plus long que large, lisse 4.
- Mésonotum bordé latéralement. Pétiole aussi large ou plus large que long. Thorax en général sculpté 5.
4. Brun noirâtre concolore. Tarses et mandibules brun jaunâtre sp. *laboriosa* F. SM.
- Tête et base du gastre d'un brun marron plus ou moins clair, reste du gastre plus foncé *laboriosa* v. *Nawai* ITO.
5. Epines de l'épinotum courtes, dentiformes, épaisses et obtuses. Bords latéraux du mésonotum mousses. Pas de face déclive distincte au mésonotum 6.