

NOTES ON ORIENTAL *LABUS*, WITH DESCRIPTIONS OF THREE  
NEW SPECIES FROM JAVA

(Hym., Vespidae).

By

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The genus *Labus* contains about 25 species of small Eumenid wasps and is confined to the Ethiopian and Oriental regions. From the latter six species have been described, but some of these will probably prove to be invalid.

The generic characters were discussed in detail by J. BEQUAERT in his well known paper on the Vespidae of the Belgian Congo (Bull. Am. Mus. Nat. Hist., XXXIX, 1918, pp. 41 - 45). Though BEQUAERT'S diagnosis of the genus *Labus* was based on the African species only, and the genotype (*L. spiniger* SAUSS. from Java) was unknown to him then, a critical study of this and other Oriental species has led me to the conclusion that the species from both regions are very closely related and that his interpretation of the genus is in every respect correct.

In 1918, BEQUAERT wrote: "Apparently, no observations have been made on the life history of any species of *Labus*". I failed to find any notes on this subject in the literature which has appeared since then. — Although I collected many specimens in the last few years, I did not succeed in finding a nest. This fact, together with the shape of the mandibles of these wasps, seem to point to the possibility, that their nests do not consist of cells of clay as is the case in many other Eumenid wasps. Perhaps they breed in the hollow stems of grasses or other herbaceous plants.

The wasps are usually found flying close above the ground in open and sunny spaces. They visit the flowers of different kinds of weeds, among others some small Rubiaceae. In Java they have been collected in the plains as well as in the mountains, up to about 900 m above sea-level.

The present paper is the result of a study of the Javan species of *Labus*. In order to find out, which of these had already been described, the descriptions of the existing species were consulted. This gave me the assurance that two of the Javan species are new and that a third one, if not new, has been described under a preoccupied name. Moreover I discovered that our knowledge of the Oriental species is as yet very scanty, and that a critical examination of the type specimens will be necessary to obtain certainty regarding their identity and synonymy. As I shall personally not be able to do this work in the near future, it may be advisable to publish here a number of notes accumulated while studying the existing descriptions. Though incomplete, they may be of value to other students of this genus.

A. Notes on Oriental *Labus*-species.1. *Labus exiguus* (SAUSS.) and *L. humbertianus* SAUSS.

As is pointed out by C. DOVER (Jl. As. Soc. Bengal, 20, 1925, p. 291), the species described by H. DE SAUSSURE as *Eumenes exigua* (Et. fam. Vesp., Suppl., 1854, p. 150, type locality: "les Indes Orientales") certainly belongs to the genus *Labus*. In his opinion it should prove to be identical with *L. humbertianus* SAUSS. (Reise der Novara, Zool. II, Hym., 1867, p. 4, pl. 1, fig. 2). From a comparison of the original descriptions however, the correctness of this statement would seem very doubtful. Attention may be drawn to the following characters of "*Eumenes exigua*": "Pétiole sans renflement, s'élargissant un peu d'avant en arrière, puis tronqué droit à son articulation..... Deuxième segment en forme de cloche, mais très court, sensiblement plus large que long". The petiole of *L. humbertianus* is described as follows: "Petiolus basi gracilis, postice latior et gibbosus, basi supra tuberculatus, apice ante marginem constrictus". The second abdominal segment of this species should be even longer than in *L. spiniger* (compare p. 165 of this paper!). The differences are obvious and in my opinion a study of the types will be necessary in order to decide whether these species are really identical.

BINGHAM's descriptions of *Eumenes exigua* (Fauna of British India, Hym. I, 1897, p. 348) and *Labus humbertianus* (l.c., p. 349) differ considerably from the original diagnoses of these species, and I think it very probable, that both his interpretations of DE SAUSSURE's species are incorrect <sup>1)</sup>. The main differences are as follows:

*Eumenes exigua* SAUSS.

"Pétiole sans renflement, s'élargissant un peu d'avant en arrière.  
Ecaïlle rousse.  
Pattes ferrugineuses, avec les hanches, les cuisses et le milieu des tibias, noirs".

Furthermore, from the original description may be concluded that the scutellum of the type is entirely black, whereas *E. exigua* (SAUSS.) BINGH. is stated to have two yellow spots on the apex of the scutellum.

*Labus humbertianus* SAUSS.

"Maculis 2 tegularum marginis luteis.  
Pedes fusciscentes, genubus et tarsis plerumque ferruginescentibus".

*Eumenes exigua* SAUSS. (sec. BINGHAM).

"Petiole long, clavate.  
Margins of the tegulae yellow.  
Legs black, the anterior and intermediate tibiae and tarsi above, a spot at the base of each posterior tibia above, yellow".

*Labus humbertianus* SAUSS. (sec. BINGHAM).

"Tegulae yellow.  
Legs black, posterior tibiae at the base yellow. (Var. ♀: the tibiae of all the legs above yellow)".

<sup>1)</sup> Apparently, MEADE-WALDO and DOVER did not see the types of DE SAUSSURE and were both misled by the incorrect determinations of BINGHAM.



According to BINGHAM, the lateral angles of the scutellum are yellow, but this character is not mentioned in DE SAUSSURE's description, and it seems very improbable, that this might be due to an oversight of the latter author.

It must be stipulated here, that the coloration, though usually of only secondary value in distinguishing the species in the Vespidae, appears to be fairly constant in the *Labus*-species. Therefore the above mentioned differences may be regarded as sufficiently important to indicate the necessity of a revision of the Indian species.

## 2. *Labus armatus* CAM.

P. CAMERON described the ♂ of this species from the Khasia Hills (Ann. Mag. Nat. Hist. (7), 6, 1900, p. 536). During a visit to the Museum in Oxford in April 1934 I had the opportunity of comparing the type in the ROTHNEY-collection with *Labus*-specimens from Java. There can be but little doubt, that this species is identical with *L. amoenus* n.sp., described on p. 162 of this paper. In any case, the name *armatus* may not be used for this species, as it is pre-occupied by *Labus armatus* (GRIB.) (*Stroudia armata* GRIBODO, Bull. Soc. ent. Ital., XXIII, 1891, p. 264).

## 3. *Labus interstitialis* (CAM.).

Described by P. CAMERON as *Zethus interstitialis* (Jl. Bombay Soc. Nat. Hist., 14, 1902, p. 191) and correctly placed in the genus *Labus* by G. MEADE-WALDO (Ann. Mag. Nat. Hist. (8), 14, 1914, p. 404). This appears to be a valid species. It is easily distinguished from the other Oriental species (also from *L. exiguus* (SAUSS.) ?) by the unarmed postscutellum.

## 4. *Labus punctatus* MEADE-WALDO (Ann. Mag. Nat. Hist. (8), 5, 1910, p. 37 ♂, Kangra Valley, Punjab).

Differs from the other Oriental species in having the postscutellum "sharply raised to form two teeth".

I should like to draw attention to the fact that the description of *L. punctatus* agrees in many respects with that of "*Eumenes exigua*" SAUSS. 1854. Both species show the absence of yellow on the scutellum and the tegulae, and both are said to have the whole petiole coarsely punctate and the legs partly ferruginous. Unfortunately, DE SAUSSURE does not describe the shape of the postscutellum. The only striking difference between the descriptions is that the clypeus of *E. exigua* is yellow, whereas in *L. punctatus* it is black. Before the resemblance between the two descriptions had occurred to me, I saw the type of *L. punctatus* in the British Museum and made the following note about it: "The type is a female from Kangra Valley". Not until sometime afterwards did I notice that the species is described as a ♂, not only by MEADE-WALDO, but also by J. BEQUAERT (Ann. Mag. Nat. Hist. (10), 2, 1928, p. 150). This being the case I feel some doubts as to whether my note is really correct. If the type of MEADE-WALDO's species should indeed prove to be a ♀, the difference in the coloration of the clypeus might possibly be a secondary sexual character

such as is commonly found in the Vespidae. Even in that case the question of the probable identity of these two species can only be solved with certainty by a comparison with the type of *Eumenes exigua* SAUSS.

### B. The *Labus*-species of Java.

Up to the present, only one species of *Labus* was known from Java, viz. *Labus spiniger* SAUSS., the ♂ of which had been described from Batavia. In my collection there are three species from this island, and I found some specimens of a fourth one in the "Rijks Museum van Natuurlijke Historie" in Leiden (Holland). Two of these species are fairly common (*L. spiniger* and *L. amoenus* n.sp.); they are generally confused in collections under the name *spiniger*. I saw specimens of *L. amoenus*, named as *L. spiniger* by DU BUYSSON (Museum Leiden, Holland) and by F. F. KOHL (Museum Vienna) <sup>1</sup>).

In order to avoid undue repetition, it may be stated here that the four species described below have the following characters in common.

Head subcircular in front, as seen from above much wider than the anterior margin of the thorax. Clypeus convex, somewhat longer than wide at the base, median portion more or less produced, its apex emarginate and bidentate, laterally with bluntly projecting angles. Mandibles short, obliquely truncate at their apex; folded over each other and, when closed, for the most part hidden underneath the anterior margin of the clypeus; their apex tridentate in the ♂, quadridentate in the ♀, their outer surface with longitudinal grooves. Antennae 12-jointed in the ♀, 13-jointed in the ♂, rather short, somewhat thickened towards the apex; the third joint scarcely longer than the fourth; in the ♂ the terminal joint recurved as a hook at the underside of the 11th joint, the 12th joint very short.

Thorax elongate. Pronotum more or less narrowed towards its anterior margin, which is feebly sinuate and laterally carinate; the sides with a vertical carina which forms the anterior margin of a vertical elongate impression; lateral angles sharp and projecting more or less outwards. Mesonotum longer than wide, without distinct parapsidal furrows. Mesopleurae strongly convex, without sutures or carinae. Scutellum feebly convex, with a slightly raised transverse area in the middle, which bears two yellow or whitish spots. Postscutellum with a short, tooth-like, tubercle in the middle. Propodeum rather short, with a distinct median longitudinal furrow; its sides rounded, without carinae; much narrowed and gradually sloping towards the apex, where it is deeply emarginate and ends on each side in a projecting lamella.

Legs rather short and thin, claws bifid at their apex. Middle femora in the ♂ more or less dilated at the base and finely pubescent beneath (fig. 1, e). Posterior coxae (fig. 1, d) in both sexes with a curved and bluntly projecting carina at their posterior face <sup>2</sup>).

<sup>1</sup>) Two *Labus*-specimens were kindly sent to me by Dr. F. MAIDL.

<sup>2</sup>) This character has apparently been overlooked by the previous authors. It would be interesting to know whether it is present in all *Labus*-species.



Wing venation: fig. 1, c. The second cubital cell trapezoidal, usually longer than high, much narrowed towards the radial cell, where it is closed or nearly so; the first recurrent nervure is almost the straight continuation of the inferior margin of the second cubital cell; the first cubital cell is longer than both the second and third cubital cells together. Radial cell broad, rounded or roundly truncate at its apex, often with a trace of an appendiculate vein.

Abdomen long and slender. Its first segment narrowed into a petiole which, when seen from above, widens rather gradually from base to apex. When seen in profile, the sides of the basal part are nearly parallel, the apical part is distinctly swollen above. The petiole is slightly shorter than the thorax (including the propodeum with the apical lamellae). Its dorsal face has a transverse depression in front of its apical margin, followed by a terminal swollen rounded ridge. Second segment shorter than the first, constricted at the base into a very short neck which is much narrower than the apex of the first segment, thence bell-shaped with a duplicated terminal margin; its preapical swollen transverse portion bordered by a row of fine punctures. The following segments are much narrower and often more or less retracted into the second segment.

Head and thorax rather dull, microscopically sculptured and more or less densely punctate, the fovea on the vertex impunctate. Horizontal face of the propodeum somewhat shiny, the sides dull, with fine and irregular sculpture. Abdomen moderately shiny, basal part of the petiole coarsely punctate and rugose, apical part as a rule with some scattered punctures which are less deep than those of the thorax. Puncturation of the second segment finer and more superficial than that of the thorax, often nearly absent; the following segments impunctate.

The body is covered with an extremely fine and short silvery pubescence, which is densest on the face and on the propodeum.

The following key may serve to distinguish the species occurring on Java.

1. Markings yellow. Mesopleurae wholly black <sup>1)</sup> ..... 2
- Markings whitish or white. Mesopleurae with a whitish spot beneath the tegulae ..... 3
2. Head, when seen in front, slightly longer than wide, its sides somewhat flattened. Anterior angles of pronotum projecting strongly outwards. The raised area of the scutellum with slightly projecting posterior angles. Abdominal petiole long and slender (fig. 1, a) ..... *L. amoenus* nov. spec.
- Head approximately as long as wide, its sides rounded. Anterior angles of pronotum projecting only slightly. Median area of scutellum rounded posteriorly. Abdominal petiole shorter (fig. 1, g) ..... *L. angularis* nov. spec.
3. Posterior excavation of propodeum margined above; in profile, a small tooth is visible above the lamella (usually somewhat hidden by the pubes-

<sup>1)</sup> For reasons of convenience I use a colour character, which appears to be constant for the Javan representatives of this genus. This does not preclude, however, that it might prove to be variable if specimens from other islands were taken into consideration.

- cence). Anterior margin of clypeus: fig. 1, *k*. Abdominal petiole rather stout (fig. 1, *j*) ..... *L. spiniger* SAUSS.
- Posterior excavation of propodeum not margined above (fig. 1, *l*). Anterior margin of the clypeus less produced than in the preceding species (fig. 1, *m*). Abdominal petiole slender (fig. 1, *l*) ..... *L. clypeatus* nov. spec.

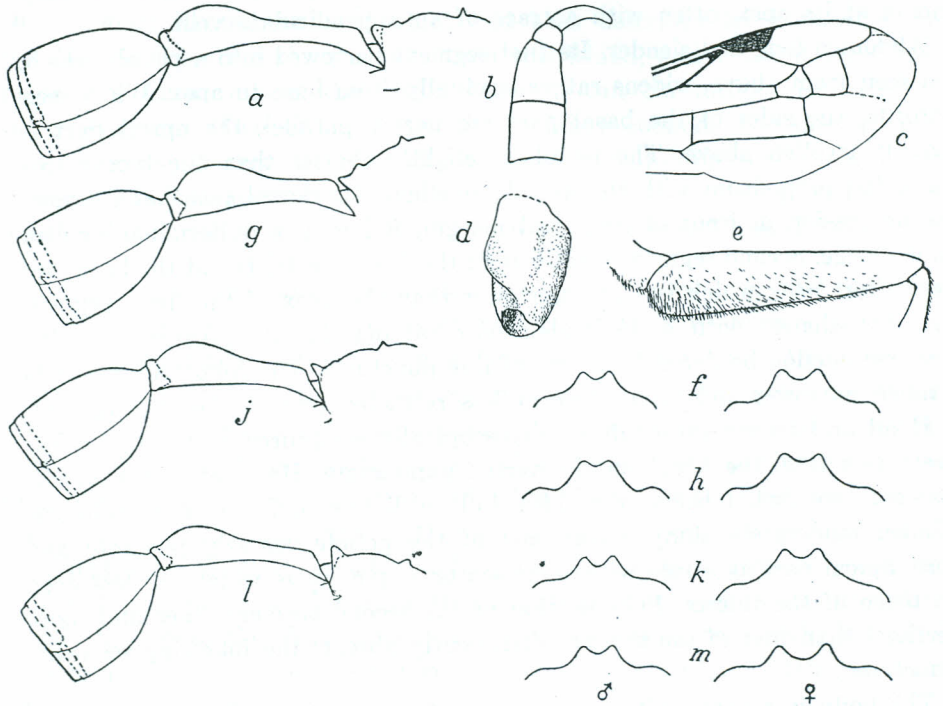


Fig. 1. — *a-f* *Labus amoenus*, n.sp.: *a* part of thorax and abdomen ♀; *b* ultimate antennal segments ♂; *c* part of front wing ♀; *d* posterior view of left coxa III; *e* posterior view of right trochanter and femur II ♂; *f* anterior margin of clypeus ♂ and ♀. — *g-h* *Labus angularis*, n.sp.: *g* part of thorax and abdomen ♀; *h* anterior margin of clypeus ♂ and ♀. — *j-m* *Labus spiniger* SAUSS.: *j* part of thorax and abdomen ♀; *k* anterior margin of clypeus ♂ and ♀. — *l-m* *Labus clypeatus*, n.sp.: *l* part of thorax and abdomen ♀; *m* anterior margin of clypeus ♂ and ♀.

**Labus amoenus**, new species.

? *Labus armatus* CAM., Ann. Mag. Nat. Hist. (7), 6, p. 536 (1900), ♂, Khasia Hills, India (nec *L. armatus* (GRIB.) Bull. Soc. Ent. Ital. XXIII, p. 264 (1891), ♀).

A relatively large species, distinguished from its allies by the shape of the head, the strong outwardly projecting tubercles of the pronotum, the shape of the scutellum and the rather dense and coarse puncturation of head and thorax.

♂—Head thick, when seen in front slightly higher than wide, its sides somewhat flattened, frons strongly swollen. Anterior margin of clypeus: fig. 1, *f*. Interantennal shield swollen, carinate in the middle, the carina is more or less distinctly prolonged on the lower part of the frons.

Pronotum truncate anteriorly, its lateral angles sharp and projecting outwards sharply (relative widths of pronotum between and behind the tubercles



= 64:57). Mesonotum longer than wide (62:52). The posterior part of the scutellum presents a somewhat raised (yellow) area, with slightly divergent sides and roundly projecting posterior angles; it is divided in the middle by a triangular impression (widest at the apex) and bordered posteriorly by an almost straight row of punctures, close to the apical margin of the scutellum. Postscutellum with a rather sharp tubercle in the middle. Propodeum with a deep median furrow, its posterior excavation is margined above; as seen in profile, the margin appears as a small tooth above the apical lamella.

Abdominal petiole long and slender, nearly as long as the thorax; the swollen part about  $2\frac{1}{3}$  times as high as the linear part, the latter is as high as wide, and has about one third of the width of the terminal ridge. Second segment about  $\frac{3}{4}$  as high as long, and slightly longer than wide. Relative lengths of first and second segments = 5:4.

Middle femora abruptly dilated at the base beneath, under side provided with fine white pubescence (fig. 1, e).

Wings: fig. 1, c. Apex of radial cell truncate, with a distinct trace of an appendiculate vein.

Head and thorax somewhat coarsely punctate, the punctures larger and deeper than in the other species, the interspaces being rarely larger than the punctures. On the lower part of the frons, and on the posterior part of the mesonotum, the punctures are partly distinctly confluent. Lateral fovea of pronotum punctate. Anterior half of scutellum coarsely and densely punctate, the raised area sparsely punctate. Dorsal area of propodeum shiny, with deep and distinct punctures, which however, are smaller than the interspaces; the sides for the most part rather dull, irregularly punctate. Linear part of petiole coarsely rugosely punctate, the swollen part shiny, with scattered fine punctures. Second tergite microscopically sculptured, sparsely covered with extremely minute and shallow puncturation, hardly visible with a handlens, the sternite somewhat more distinctly punctate.

Black. An elongate triangular spot on the mandibles, a large spot on the clypeus, narrowed towards the apex and not reaching the anterior margin, a spot on the scape beneath, a scarcely interrupted transverse fascia on the pronotum, an interrupted line along the outer margins of the tegulae, the posttegulae, two spots on the scutellum (for shape see above), the apical lamellae of the propodeum, and narrow fasciae on the apical margin of the first tergite and on the preapical margin of the second tergite and sternite, yellow. Furthermore the following are yellow: a spot at the apex of femora I, tibiae I, except a spot at their inner side, a small spot at the apex of femora II, outer side of tibiae II, and a small spot at the base of tibiae III. Preapical two or three joints of the antennae ferruginous beneath, the ultimate hook-like joint wholly ferruginous. Depressed apical margin of second segment testaceous. Tarsi brownish, metatarsus II often yellowish. Wings slightly smoky, apex of median cell and the radial cell rather strongly infuscated.

Length (h. + th. + t. 1 + 2), 7-8 mm.

♀—Very similar to the male. Anterior margin of clypeus: fig. 1, *f*. Mandibles and antennal scape entirely black. Basal half of clypeus with a yellow spot which is usually trilobate and apparently never emarginate or incised in the middle. Middle femora entirely black, not dilated at the base, their pubescence shorter and less conspicuous.

Length (h. + th. + t. 1 + 2), 7 - 8½ mm.

S u m a t r a: 1 ♀, Lampong Districts, Pembangkok (Dr. H. R. A. MULLER leg.); B a n g k a: 1 ♂, Tjeloeak (author); W e s t - J a v a: many specimens from the following localities: Tjilegon, Djasinga, Tjimangeunteung, Antjol near Batavia, Depok, Buitenzorg, Soekaboemi, Djampang Tengah; M i d d l e - J a v a: Gedangan near Semarang (Dr. L. G. E. KALSHOVEN leg.); E a s t - J a v a: Malang (Dr. J. G. BETREM leg.).

Vertical distribution: 0 - ± 900 m.

The holotype is a ♂ from Buitenzorg, the allotype is a ♀ from Djasinga (Mus. Leiden, Holland).

**Labus angularis**, new species.

This species resembles *L. amoenus*, but it is less slender, the thorax is flatter, the anterior angles of the pronotum project outwards only slightly, the scutellum differs in shape, the abdominal petiole is shorter, and the clypeus is slightly different in the male sex. The puncturation is somewhat finer, and there are some minor differences in the coloration.

♂—Head slightly wider than high, somewhat flattened above, clypeus rather narrow, longer than wide at base, its median portion produced and shallowly incised in the middle, the apical teeth rather blunt (fig. 1, *h*).

Lateral angles of pronotum projecting very slightly (relative widths of pronotum between and behind the angles 62: 60). Mesonotum flat, longer than wide (56: 50). Scutellum slightly convex, posteriorly with a narrow and rather shallow median groove; posterior angles rounded, not projecting. Tubercle of postscutellum roughly as acute as in *L. spiniger*. Median furrow of propodeum rather shallow, posterior excavation distinctly margined above.

Abdominal petiole more or less intermediate between *L. spiniger* and *L. clypeatus*, distinctly shorter than in *L. amoenus*. It is about 8 times as long as wide behind the base, the linear part is relatively short, about as high as wide, and ⅓ as wide as the terminal ridge, the posterior part widens gradually and is slightly more than twice as high as the linear part. Relative lengths of first and second segments = 10: 9. Second segment ¾ as high as long, distinctly longer than wide, its sides very gradually rounded from the narrow base to the middle.

Middle femora slightly dilated at the base beneath, forming a bluntly rounded angle, pubescence less conspicuous than in *L. amoenus*.

Wings normal, radial cell roundly truncate, appendiculate vein apparently sometimes indistinct.



Puncturation about the same as in *L. spiniger*.

Black; differs from *L. amoenus* in coloration as follows: spot on mandibles larger; the clypeus is almost entirely yellow, its anterior margin showing an extremely narrow black border which is dilated near the eyes, the yellow spot is pear-shaped, slightly emarginate at the apex. Scape beneath with a yellow line, which nearly reaches the apex. The fascia on the pronotum has about the same shape as in *L. amoenus*, but is slightly wider. Yellow margin of tegulae wide, not interrupted. Spots on scutellum oval, not angular as in *L. amoenus*. Legs as in *L. amoenus*, but femora II entirely black, tarsi all brownish black.

Length (h. + th. + t. 1 + 2),  $6\frac{1}{2}$  - 7 mm.

♀—Anterior margin of clypeus similar to that of *L. amoenus* (fig. 1, h). The spot on the clypeus is oval, somewhat wider than long, it occupies nearly  $\frac{2}{3}$  of the clypeus, the apical third and a part of the sides being black. Antennal scape with a short yellow line at the base. Otherwise as in the ♂.

Length (h. + th. + t. 1 + 2), 7 - 8 mm.

West-Java: 1 ♂, Tapos on Mt. Gedeh, 700 m, Aug. 1933 (holotype); 1 ♂, idem (paratype); 1 ♀, idem (allotype); 1 ♀, Tjiboerial near Buitenzorg; 240 m, April 1932 (paratype).

Holotype and allotype in Museum Leiden, Holland; paratypes in my collection.

### **Labus spiniger** SAUSS.

1867. SAUSSURE, H. DE, *Reise der Novara, Zool. II, Hymenoptera*, p. 4, no. 1, Taf. 1, Fig. 1, 1a—d.

1907. KOHL, F. F., *Denkschr. k. Akad. Wiss. Wien, math. naturw. Kl.*, LXXI, 1, p. 242.

?1914. SCHULTHESS, A. VON, *Zool. Jahrb. Syst.*, 37, p. 262.

Less slender than *L. amoenus*, head more rounded, tubercles of pronotum less projecting, shape and puncturation of scutellum different, puncturation of head and thorax finer. Abdominal petiole rather thick. Markings yellowish white.

♂—Head thick, slightly wider than long, its sides rounded. Anterior margin of clypeus: fig. 1, k. Interantennal shield bluntly carinate; frons convex, not carinate.

Thorax shorter than in *L. amoenus*, lateral angles of pronotum moderately projecting (relative widths of pronotum between and behind the tubercles 62: 58). Mesonotum relatively shorter (60: 55). Scutellum hardly convex, its posterior margin narrowly depressed, in front of it, between the two whitish spots, there is a rather wide median longitudinal groove which is much narrowed and often only indicated on the basal half of the scutellum. Posterior angles rounded, not projecting. Spine of postscutellum blunt. Median furrow of propodeum distinct, posterior excavation margined above, the margin, however, less raised than in *L. amoenus*.

Abdominal petiole rather short and stout, the swollen part less than twice as high as the linear part, the apical rim is less than three times as wide as the linear part of the petiole, which is slightly higher than wide. Second segment

short, seen from above scarcely longer than wide (44:42) and in profile about  $\frac{5}{6}$  as high as long. The shape of this segment appears to be somewhat variable, but it is always distinctly shorter, higher and wider than in *L. amoenus*.

Middle femora only slightly dilated at the base, pubescence sparser and shorter than in *L. amoenus*.

Wings normal. Apex of radial cell truncate, even more distinctly so than in *L. amoenus*; trace of appendiculate vein very conspicuous.

Puncturation of head and thorax somewhat finer than in *L. amoenus*, many interspaces being as large as or even larger than the punctures. Punctures on lower part of frons and on mesonotum not confluent. Lateral fovea of pronotum with a few punctures. Punctures on basal half of scutellum rather fine and smaller than the interspaces. Dorsal area of propodeum very sparsely punctate, the sides dull and rather densely irregularly punctate except at the apex. Sculpture of abdomen about the same as in *L. amoenus*, linear part of petiole very coarsely rugose.

Black, differs from *L. amoenus* in coloration as follows: Colour of the markings very pale yellow or yellowish white. Clypeus almost entirely pale yellow, anterior margin hardly black. Scape of antennae black or with only a small spot at the base, tenth joint black, eleventh joint brownish beneath, the two extreme joints ferruginous brown. Pronotum with two transverse spots, separated by a distance which is about  $\frac{1}{3}$  of the width of the pronotum. In some specimens the spots are somewhat larger, but they never form a scarcely interrupted fascia. Mesopleurae with a distinct spot beneath the tegulae. Outer margin of tegulae yellowish white, very rarely interrupted. Scutellum with two transverse oval spots which are rounded posteriorly, not straight as in *L. amoenus*. Femora I with a small spot at the apex (in one small specimen nearly absent), II and III wholly black, inner side of tibiae I black; tarsi, including the metatarsus II, dark brown. Wings as in *L. amoenus*.

Length (h. + th. + t. 1 + 2),  $6\frac{1}{2}$  -  $7\frac{1}{2}$  mm.

♀—Very similar to the male. Anterior margin of clypeus: fig. 1, k. Basal third of clypeus with an arcuate transverse line, which is broadly, and more or less deeply, emarginate anteriorly. Mandibles and antennae black. Second abdominal segment slightly longer than in the ♂.

Length (h. + th. + t. 1 + 2),  $6\frac{1}{2}$  -  $7\frac{1}{2}$  mm.

West-Java: Batavia (Novara-Reise, DE SAUSSURE, 1867; 1 ♂, Dr. H. KARNY leg. in Mus. Buitenzorg), Koeripan, Buitenzorg, Tapos (on Mount Gedeh, 700-800 m, many specimens in my collection), Mount Tjisoeroe (Djampang Tengah, 1 ♂, Mrs. E. WALSH leg. in Mus. Buitenzorg), Soekanegara; East-Java: Malang (Dr. J. G. BETREM leg.).

Vertical distribution: plains —  $\pm$  900 m.

**Labus clypeatus**, new species.

This species approximates very closely to *L. spiniger* SAUSS., so that it will be sufficient to point out the chief differences.



♂ — Clypeus somewhat shorter, the median portion less produced, its teeth slightly blunter. Groove on the scutellum superficial and very short, not visible on the basal half. Spine of postscutellum somewhat blunter. Posterior excavation of propodeum not margined above; apical lamellae sharp (fig. 1, *l*). Abdominal petiole slender, more than nine times as long as wide behind the base, terminal ridge more than three times as wide as the basal linear part, the latter about as high as wide. The convex part is more gradually swollen than in *L. spiniger* and about  $\frac{2}{3}$  times as high as the linear part. Second abdominal segment slightly longer in proportion to its width. Middle femora dilated at the base, bluntly angular beneath.

Puncturation about the same as in *L. spiniger*, linear part of petiole less coarsely sculptured, the swollen part with only a few very fine punctures.

The markings are scarcely less pale than in *L. spiniger*, but somewhat more extensive. Clypeus almost entirely pale yellow, anterior black margin extremely narrow. Basal three fourths of the antennal scape with a yellowish line beneath. Anterior margin of pronotum with a transverse fascia, which is interrupted over one fifth of its width. Spot on mesopleurae beneath the tegulae larger than in *L. spiniger*. Yellowish line along outer margin of tegulae interrupted (probably variable, compare description of ♀!). Femora I and II with a pale yellow spot at the apex, femora III brownish at the end, tibiae I yellowish, with a dark line on their inner side, tibiae II and basal half of tibiae III with a yellowish line at their outer side. Tarsi dark brown.

Length (h. + th. + t. 1 + 2), 7 mm.

♀ — Differs from the ♂ as follows. Anterior margin of clypeus: fig. 1, *m*. Base of clypeus with a broadly emarginate transverse yellowish line as in *L. spiniger*. Mandibles black, brownish at the apex. Yellowish line along outer margin of tegulae entire. Middle femora black, their extreme apex ferruginous.

Length (h. + th. + t. 1 + 2),  $7\frac{1}{2}$  mm.

Middle-Java: 1 ♂, 1 ♀, Semarang, 1905, (resp. holotype and allotype), Edw. JACOBSON leg. (Mus. Leiden, Holland). In 1934 I saw two other specimens from the same locality and date in this Museum.