

PROCEEDINGS
OF THE
GENERAL MEETINGS FOR SCIENTIFIC BUSINESS
OF THE
ZOOLOGICAL SOCIETY OF LONDON.

PAPERS.

1. A Revision of the Ichneumonid Genera *Labium* and *Pæcilocryptus*. By ROWLAND E. TURNER and JAMES WATERSTON.

[Received November 14, 1919: Read February 10, 1920.]

(Text-figures 1-11.)

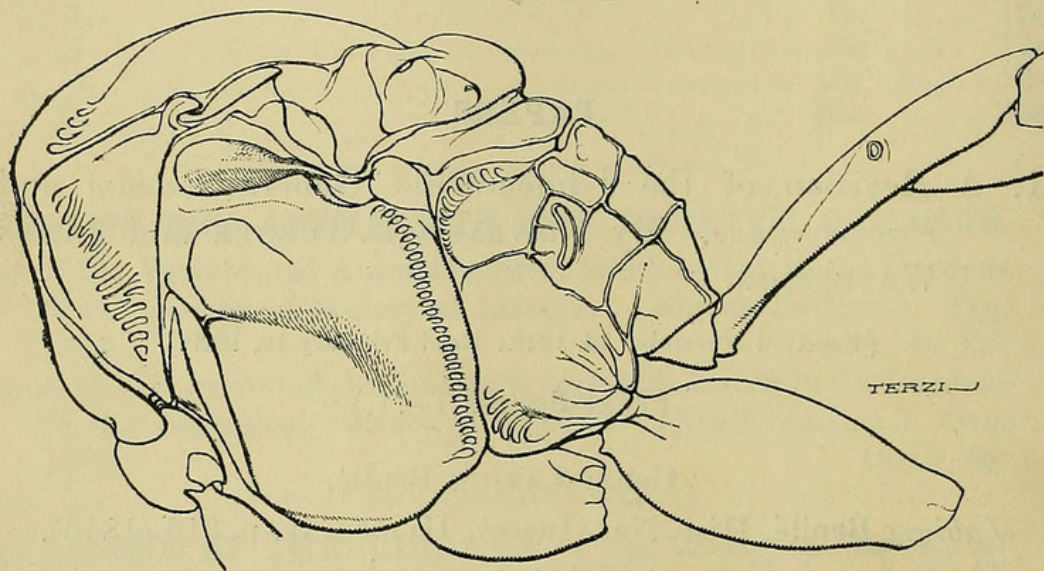
Genus LABIUM Brullé.

Labium Brullé, Hist. Nat. Insect. Hymén. iv. p. 316 (1846).

The genus *Labium*, though the typical species was described from New Guinea, is really characteristic of the southern half of Australia. No specimens are in the British Museum from the northern half of Australia, and we may certainly assume that the genus does not occur in the north-eastern coast regions, unless at high elevations where little collecting has been done. In the extreme south of Australia and in Tasmania various species of the genus are exceedingly common, swarming on the blossom of *Leptospermum*. It is most remarkable that so little work should have been done on a genus so conspicuous and so plentiful as this, and that nothing should be known of its life-history. Before Brullé defined the genus Erichson had already described a Tasmanian species as *Ichneumon petitorius*, but the genus was not again recognised till Cameron described *L. ferrugineum* in 1901, Morley later (1915) adding another species, *L. clavicorne*. The genus is extremely isolated among the Ichneumonidæ, the most striking characters being the long exserted labrum, the more or less clavate antennæ, the large ungues and empodium of the hind

tarsi, and the strongly bent recurrent nervure. In one or two aberrant species one or more of these characters may be only feebly developed, but the long labrum is always present. The best account of the genus is given by Cameron, but his description of the generic characters is founded on a single species, and one or two characters given are merely specific. Thus the petiolar area and areola are usually separated, not confluent, and the nervulus is often more or less postfurcal, as noticed by Morley. Cameron is inclined to place the genus in the *Ichneumoninae*, as a separate tribe; the great objection to this placing is in the position of the spiracles on the petiole only a little behind the middle, and much nearer to each other than to the apex of the segment. It seems, however, on the whole, a more natural position than either among the *Tryphoninae*, with which it was placed by Brullé, or near *Banchus*, where Morley is inclined to

Text-figure 1.



Labium monticagum Turn. & Wtst. Thorax, propodeon, and petiole in profile.

place it. We give a full account of the sculpture of the median segment (text-figs. 1, 3, and 10), as far as it is common to all the species: carina between the short basal area and areola usually indicated by short lateral stumps; areola and petiolar area sometimes confluent; pleural and juxta-coxal area confluent anteriorly, but separated up to $\frac{1}{2}$ or beyond posteriorly. The surface of the basal area and areola is smooth, more or less rugulose round the sides; of the external area smooth or finely punctured: the anterior part of the spiracular area is also punctured, generally rather strongly so. The other area vary in sculpture, the juxta-coxal always showing some strong ridges, indicated at least anteriorly. Sculpture of the male usually coarser than in the female. The sculpture of the area is liable to considerable individual variation in intensity.

Species of Thynnidae of the genera *Eirone* and *Tachynomyia*

bear a strong superficial resemblance to species of this genus. *T. abdominalis* Guér. and *Eirone celsissima* Turn., both of which look like *Labium*, occur on Mt. Wellington at a considerable elevation, where *Labium montivagum* is very plentiful. *E. celsissima* even has the apical antennal joints yellow, a most abnormal coloration for one of the Thynnidae.

Key to the Species of Labium.

- | | | |
|---|-----|---|
| 1. Antennæ not more than 30-jointed | 2. | |
| Antennæ more than 30-jointed | 4. | |
| 2. Second recurrent nervure only feebly bent in the middle; nervellus straight, discoidella wanting; head, thorax, and median segment black with yellow markings | | <i>L. walkeri</i> , sp. n., ♂, p. 4. |
| Second recurrent nervure sharply angulate in the middle, nervellus angulate, discoidella not wholly wanting; head, thorax, and median segment fulvo-ferruginous, with yellow markings | 3. | |
| 3. Discoidella reduced to a short stump, originating halfway between the submediella and the middle of the nervellus; median segment yellow apically | | <i>L. centrale</i> , sp. n., p. 6. |
| Discoidella complete, originating much nearer to the middle of the nervellus than to the submediella; median segment entirely fulvo-ferruginous | | <i>L. brevicorne</i> , sp. n., p. 6. |
| 4. Face and clypeus fused, in the same plane, the dividing-line obsolete; more or less pilose..... | 5. | |
| Face and clypeus not entirely fused or in the same plane; scarcely pilose | 6. | |
| 5. Strongly pilose; hind femora and median segment black | | <i>L. pilosum</i> , sp. n., p. 10. |
| Feebly pilose; hind femora and median segment fulvo-ferruginous | | <i>L. subpilosulum</i> , sp. n., p. 11. |
| 6. Hind empodia small, not more than one-third of the length of the tarsal unguis; mesonotum with a broad black fascia on each side | | <i>L. bivittatum</i> , sp. n., p. 8. |
| Hind empodia elongate, at least two-thirds of the length of the tarsal unguis; mesonotum without black lateral fasciæ | 7. | |
| 7. Mesonotum opaque, closely and coarsely punctured; dentiparal area produced into a broad well-developed tooth | 8. | |
| Mesonotum shining, smooth or finely punctured; dentiparal area unarmed, or at most with an inconspicuous tooth | 9. | |
| 8. Scutellum and postscutellum yellow | | <i>L. petitorium</i> Erichs., p. 7. |
| Scutellum and postscutellum ferruginous | | <i>L. petitorium</i> , subsp. con- |
| 9. Flagellum of the antennæ wholly black above, without pale apical joints | 10. | [color, subsp. n., p. 8 |
| Flagellum, if black above, then always with several of the apical joints conspicuously ferruginous or ochraceous | 11. | |
| 10. Mandibles very long and straight, vertical; dentiparal area with a small, but distinct tooth at the external apical angle | | <i>L. vasseanum</i> , sp. n., ♂, p. 13 |
| Mandibles normal, not elongate; dentiparal area unarmed | | <i>L. ferrugineum</i> Cam., p. 19. |
| 11. External area of the median segment more coarsely sculptured than the dentiparal area; external subopaque, finely and closely punctured, dentiparal smooth and shining | 12. | |

- Dentiparal area more coarsely sculptured than the external or both smooth and shining 13.
12. Antennæ from 50- to 55-jointed; hind tarsi ferruginous, median segment with a transverse yellow fascia *L. multiarticulatum*, sp. n., [p. 23.]
- Antennæ 45- to 46-jointed; hind tarsi black from before the apex of the metatarsus, median segment without a yellow fascia *L. fulvicorne*, sp. n., p. 22.
13. Hind femora black, very narrowly yellow at the apex *L. sculpturatum*, sp. n., ♂, [p. 14.]
- Hind femora ferruginous, at most narrowly black at the base and apex 14.
14. Antennæ more than 40-jointed 15.
- Antennæ less than 40-jointed 18.
15. Mandibles bidentate; basal tergites narrowly margined with yellow *L. hobartense*, sp. n., p. 20.
- Mandibles simple 16.
16. Dentiparal area unarmed, areola, external area, and dentiparal area smooth *L. longicorne*, sp. n., ♂, p. 23.
- Dentiparal area armed, the carinæ strongly raised forming small teeth at the outer angles 17.
17. Antennæ 47-jointed; face yellow, closely and evenly punctured *L. approximatum*, sp. n., ♂, [p. 21.]
- Antennæ 43-jointed; face ferruginous, margined with yellow laterally, centrally rugulose *L. spiniferum*, sp. n., p. 12.
18. Third and fourth antennal joints subequal 19.
- Third antennal joint much longer than the fourth 20.
19. Mandibles strongly bidentate; hind femora shining, with large and rather sparse punctures. Mandibles very obscurely bidentate; hind femora subopaque, very closely covered with minute punctures *L. occidentale*, sp. n., p. 16.
20. Distance between the recurrent and second transverse cubital nervures not equal to more than one-third of the length of the latter nervure; nervulus very distinctly postfurcal *L. subæquale*, sp. n., p. 15.
- Distance between the recurrent nervure and the second transverse cubital nervure equal to at least half the length of the latter nervure; nervulus interstitial or very slightly postfurcal 21.
21. Petiole black, except at the apex; mesopleuræ extensively black superiorly *L. montivagum*, sp. n., p. 16.
- Petiole mainly ferruginous; mesopleuræ with very little black *L. associatum*, sp. n., p. 20.

Labium bicolor Brullé is not included in the Key, as we have not seen a specimen. It is described from a male, and has the hind femora black as in *L. sculpturatum*, to which, from the description, it appears to be related.

LABIUM WALKERI, sp. n. (Text-fig. 2.)

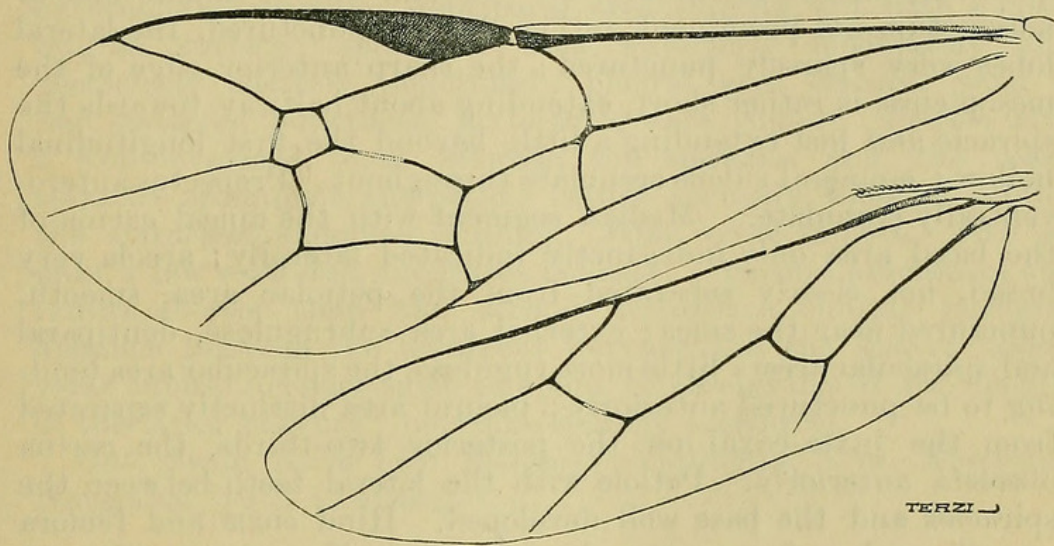
♂. Niger; mandibulis, apice brunneis, labro, clypeo, facie, fronteque lateribus, genis, orbitis externis, scutello, basi anguste nigro, postscutello, tegulis, mesopleuris maculis duabus, epimeris, pedibus anticis intermediisque, tarsis intermediis brunnescentibus, coxis posticis apice, trochanteribus posticis, genubus, tibiisque posticis dimidio basali, basi angustissime brunneo annulatis, flavis; antennis subtus rufescentibus; femoribus posticis medio late rufescentibus, basi atque apicem versus nigrescentibus; calcaribus pallidis; alis subhyalinis, venis fuscis; petiolo apice

in medio late testaceo, tergitis 2-5 brunneo-ferrugineis, apice anguste flavo-limbatis; tergitis apicalibus fuscis; sternitis quarto sequentibusque flavo-testaceis.

Long. 6 mm.

♂. Mandibles simple; clypeus distinctly separated from the face, convex; face smooth, subquadrate; vertex and temples smooth and shining. Antennæ 28-jointed, third and fourth joints subequal, joints five to eight diminishing gradually, in the funicle the first fifteen joints are cylindrical. Thorax shining, epimeral furrows crenulate throughout. Median segment with the apical carina of the basal area complete, areola and external areæ smooth; petiolar and adjacent areæ, the apical two-thirds of the spiracular areæ, and the dentiparal areæ subrugulose; pleural areæ smooth, anteriorly crenulate, with five or six strong

Text-figure 2.



Labium walkeri Turn. & Wtrst. Wings.

rugæ in front of the coxa. Petiole without a subbasal tooth, but the spiracular area prominent; spiracles well behind the middle; abdomen shining, smooth. Areolet (text-fig. 2) pentagonal, second abscissa of the radius shorter than either of the transverse cubital nervures, distance between the recurrent nervure and the second transverse cubital nervure equal to nearly half the length of the latter nervure; second recurrent nervure only feebly bent in the middle, not abruptly angled as in other species of the genus. Discoidella missing; nervellus straight, not angled.

Hab. Hobart, Tasmania; summer, 1891 (*J. J. Walker*).

Very distinct in the neurulation from the larger species of the genus. Probably this will eventually prove to be generically distinct, but in the present state of our knowledge it is hardly necessary to divide the genus.

LABIUM CENTRALE, sp. n.

♀. Fulvo-ferruginea; mandibulis, apice nigris, labro, clypeo, facie, fronte, scapo, pedicello, propleuris antice, mesonoto lateribus anguste, scutello, sulco basali lateribusque nigris, postscutello, mesopleuris supra fasciaque infra, segmento mediano fascia lata postica, coxis anticis intermediisque, tibiisque posticis dimidio basali flavis; tarsis posticis articulo apicali, tibiisque posticis dimidio apicali intus fusco-ferrugineis; alis hyalinis, venis brunneis; stigmatibus brunneo, macula basali flava.

Long. 6 mm.

♀. Mandibles simple; line between the clypeus and face distinct, less so in the middle than at the sides, the face and clypeus sparsely, but not very finely punctured, face broader than long; eyes rather strongly emarginate above the base of the antennæ; vertex and front smooth. Antennæ 27-jointed, third joint only a little longer than the fourth, twelfth funicular joint quadrate, thirteenth transverse. Notauli short; middle lobe of mesonotum not prominent, rather coarsely punctured, the lateral lobes very sparsely punctured; the sharp anterior edge of the mesopleuræ is rather short, extending about halfway towards the spiracle and just extending a little beyond the first longitudinal hollow; epimeral sulcus crenulate throughout. Prepectus antero-ventrally crenulate. Median segment with the apical carina of the basal area only indistinctly indicated laterally; areola very broad, not clearly separated from the petiolar area, smooth, punctured near the sides; external area subrugulose, dentiparal and spiracular area a little more rugulose, the spiracular area tending to be punctured anteriorly; pleural area distinctly separated from the juxta-coxal on the posterior two-thirds, the carina obsolete anteriorly. Petiole with the lateral teeth between the spiracles and the base well developed. Hind coxæ and femora smooth, with a few scattered punctures. Nervulus postfurcal; areolet pentagonal, distance between the recurrent nervure and second transverse cubital nervure equal to half the length of that nervure, second abscissa of the radius shorter than the second transverse cubital nervure; nervellus angled far below the middle (at about three-fourths), discoidella represented only by a short stump at that point, entirely obsolete beyond the stump, without a vena spuria.

Hab. Killalpanima, 100 miles E. of Lake Eyre (*H. J. Hillier*).

LABIUM BREVICORNE, sp. n.

♀. Fulvo-ferruginea; mandibulis, apice excepto, labro, clypeo, facie, scapo, pedicello subtus, fronte lateribus, scutello, postscutello, mesopleuris maculis sub alis, tegulis, linea verticali supra coxas anticæ, pedibusque anticis intermediisque, illius tarsorum articulo apicali excepto, flavis; antennis supra infuscatis usque ad articulum vicesimum, subtus omnino articulisque septem apicalibus ferrugineis; scutello fovea basali et lateribus, pro-

pleuris antice, segmento mediano area juxta-coxali, tibiis posticis dimidio apicali, tarsisque posticis articulo apicali nigris.

Long. 7 mm.

♀. Mandibles simple; face and clypeus shining, very finely and sparsely punctured, the line between the clypeus and face distinct. Antennæ 28- to 29-jointed, the third joint less than half as long again as the fourth, which is slightly longer than the fifth, the basal twelve joints of the funicle cylindrical. Vertex and front smooth and shining. Notauli shallow and short, middle lobe of the mesonotum not prominent anteriorly, smooth; mesopleuræ shining, epimeral sulcus crenulated throughout. Median segment with the basal area very short, scarcely extending beyond the posterior edge of the sulcus separating the postscutellum and median segment, the apical carina only indicated laterally; areola broad and smooth, sparsely punctured towards the sides, not distinctly separated from the petiolar area, which with the adjacent area is longitudinally rugulose; external area smooth; dentiparal area shining, but with a more uneven surface; spiracular area anteriorly moderately and posteriorly coarsely punctured; pleural area smooth, with a few scattered punctures, juxta-coxal area rugose. Petiole with a well-developed tooth between the spiracles and the base; spiracles prominent, the petiole rather abruptly widened behind the spiracles; abdomen shining. Hind coxæ smooth, with at most a few scattered punctures beneath. Second abscissa of the radius shorter than the second transverse cubital nervure, distance between the recurrent nervure and the second transverse cubital nervure equal to about three-eighths of the length of the latter nervure; nervulus slightly postfurcal.

Hab. Swan River (*Du Boulay*); Yallingup, S.W. Australia, November, 1913 (*Turner*).

LABIUM PETITORIUM Erichs. (Text-figs. 3 and 7 c.)

Ichneumon petitorius Erichs. Arch. f. Naturges. p. 255 (1842).

Hab. Eaglehawk Neck, S.E. Tasmania; February (*Turner*).
Common.

This is distinguished from other species of the genus by the opaque, strongly and very closely punctured mesonotum and mesopleuræ and the strongly developed teeth (text-fig. 3) of the dentiparal area. The division between the clypeus and face is well marked, both clypeus and face closely punctured; antennæ of the female 42-jointed; median segment with the apical carina of the basal area interrupted in the middle, external area smooth, dentiparal area coarsely and irregularly longitudinally striate, spiracular area rugose, juxta-coxal and pleural area rugose-striate, postero-intermedial and postero-external area transversely striate, areola shining with a few large punctures, petiolar area indistinctly and irregularly transversely striated. Second abscissa of the radius and first transverse cubital nervure subequal, second transverse

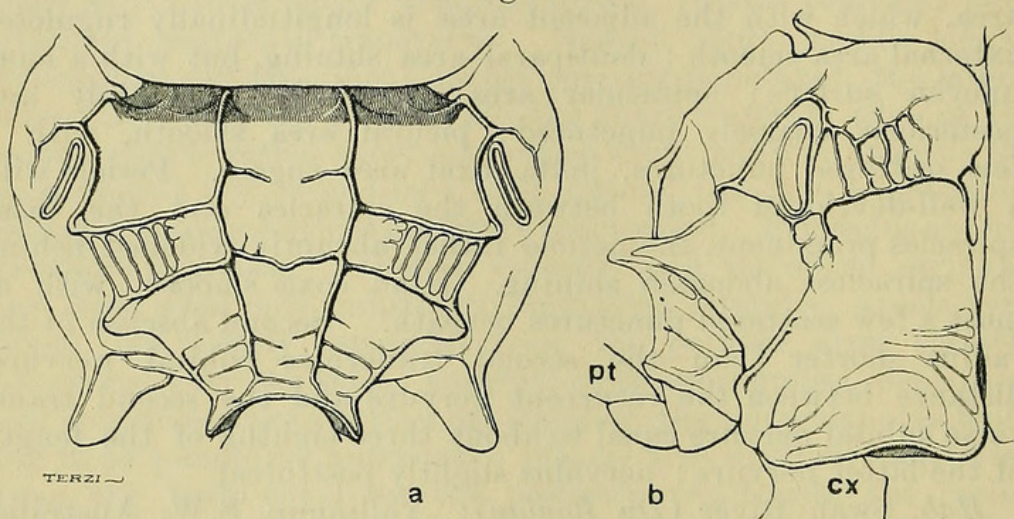
cubital nervure slightly longer, the distance (text-fig. 7, *c*) between the recurrent nervure and the second transverse cubital nervure equal to more than half of the length of the latter nervure. Antennæ 42-jointed.

Subspecies *concolor*, subsp. n.

♀. Differs from the typical Tasmanian form in having the scutellum and postscutellum ferruginous, only very slightly paler than the rest of the thorax, not yellow as in the typical form. The second abscissa of the radius is somewhat shorter than in the typical form and the two transverse cubital nervures subequal. Antennæ with three or four joints less than in the typical form.

Hab. Yallingup, S.W. Australia; October–December (*Turner*).

Text-figure 3.



Labium petitorium Erichs. Propodeon. (*a*) dorsal; (*b*) profile; (*cx*) coxa of hind leg; (*pt*) petiole.

To show outlines of the areæ. Sculpture of areæ not detailed fully.

LABIUM BIVITTATUM, sp. n. (Text-fig. 4, *b*.)

♀. Ochracea; labro, clypeo, facie lateribus, macula lineari sub alis, scutello postscutelloque flavis; vertice late, propleuris dimidio inferiore, mesonoto fascia lata longitudinali utrinque, tergito primo apice, coxis posticis macula magna dorsali apicali, femoribus posticis basi et apice, tibiisque posticis dimidio apicali nigris; alis hyalinis, venis fuscis; antennis fuscis, infra ferrugineis, articulis 9 apicalibus fulvo-ochraceis.

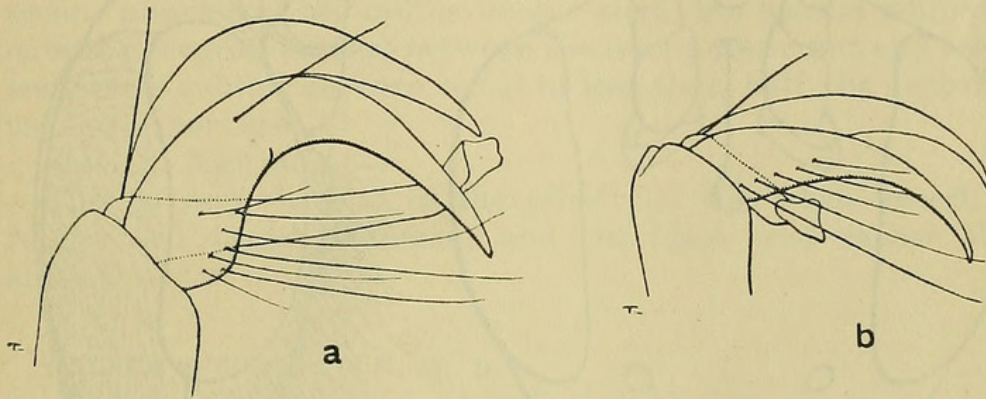
♂. Feminae similis; antennis articulis 7 apicalibus fulvo-ochraceis; tibiis posticis parte basali minus late ochraceis quam in femina.

Long., ♀ 10–11 mm., ♂ 8–10 mm.

♀. Labrum and clypeus rather deeply but not very closely punctured, the face much more closely and finely punctured, face broader than long. Antennæ 42-jointed, the third joint as

long as the fourth and fifth combined, the fourth very little longer than the fifth. Front and occiput microscopically punctured, the space between the eyes and the ocelli almost smooth. Thorax shining, mesonotum sparsely and finely punctured on the black fasciæ, more closely anteriorly on the very prominent median lobe; notauli distinct, extending backwards beyond the black lateral fasciæ; scutellum smooth and shining, with a few small scattered punctures, postscutellum a little more closely punctured. Median segment with the basal area smooth, short, and separated from the areola only by lateral indications of a carina; areola hexagonal, smooth, with a few scattered punctures, narrowed posteriorly, the carina separating it from the dentiparal area broadly obsolete behind the middle; dentiparal area smooth and shining; external area shining, microscopically punctured; spiracular area smooth, divided into three areas by two sharply marked carinæ, both of which nearly touch the spiracle. Hind

Text-figure 4.



Hind tarsal unguis and empodia of *Labium* (a) *montivagum* Turn. & Wtrst.; (b) *bivittatum* Turn. & Wtrst.

coxæ elongate, as long as the first tergite, nearly smooth dorsally, but laterally and ventrally distinctly and rather closely punctured; hind femora closely and finely punctured. First transverse cubital nervure strongly oblique, second abscissa of the radius very little shorter than the second transverse cubital nervure, second recurrent nervure separated from the second transverse cubital nervure by a distance equal to about half the length of that nervure. Unguis (text-fig. 4, b) of the hind tarsi much less robust than is usual in the genus; hind empodium very small, not elongate, only about one-third of the length of the unguis.

Hab. Yallingup, S.W. Australia; September 14–October 31, 1913 (*Turner*). A good series taken.

Very distinct from other species of the genus in the small empodium, less robust hind tarsal unguis, prominent median lobe of the mesonotum, and black markings. The antennæ are also less strongly thickened to the apex than in most species of the genus. The groove between the face and clypeus is strongly marked.

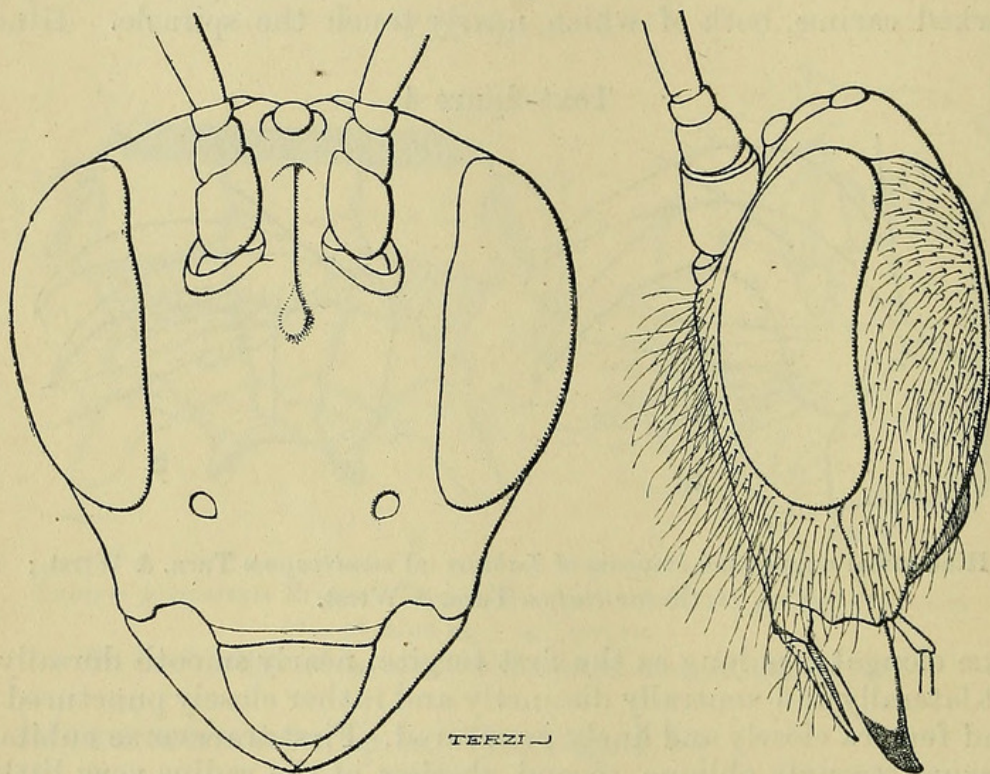
LABIUM PILOSUM, sp. n. (Text-fig. 5.)

♀. Ferruginea, fulvo-pilosa; antennis, scapo articuloque tertio subtus flavis, occipite, macula circa ocello, propleuris, scutello lateribus sulcoque basali, segmento mediano, femoribus posticis, tibiisque posticis apice nigris; tarsis posticis infuscatis; capite, mesopleuris, scutello, postscutello, pedibusque flavo-ochraceis; alis sordide hyalinis, venis fuscis.

Long. 9 mm.

♀. The whole insect, except the dorsal surface of the median segment, sparsely clothed with pale fulvous hairs, which are denser on the pleuræ, legs, the sternites, and the vertex than elsewhere. Labrum, clypeus, and face shining and sparsely punctured,

Text-figure 5.



Labium pilosum Turn. & Wtrst. In the front view the mandibles are partly concealed by the labrum. In the profile the chætotaxy of vertex and antenna is not shown.

the clypeus quite smooth apically; face (text-fig. 5) much broader than long, the groove separating it from the clypeus obsolete (*i. e.*, clypeus and face in the same plane). Occiput more closely and strongly punctured, front almost smooth. Antennæ stout, 32-jointed, scarcely as long as the head, thorax, and median segment combined, the third joint as long as the fourth and fifth combined, the fourth distinctly longer than the fifth. Mesonotum shining, finely punctured, rather closely on the median lobe, much more sparsely posteriorly and laterally; the notauli very short, only visible anteriorly, a very faint indication of a longitudinal carina

between the notauli. Scutellum and postscutellum smooth, almost impunctate; mesopleuræ rather coarsely and not very sparsely punctured on the anterior two-thirds, smoother posteriorly; vertical groove between the episternite and epimeron crenulate on upper half, smooth ventrally. Basal area of median segment broad and very short, the carina separating it from the areola only indicated laterally, surface smooth; areola very broad, not distinctly separated from the petiolar area, smooth, with indications of transverse rugæ posteriorly and with a few scattered punctures; external area smooth, with a few indistinct punctures; dentiparal area coarsely, but rather sparsely, punctured; spiracular area and juxta-coxal area with numerous punctures, not quite as coarse as those on the dentiparal area; areæ bounding the petiolar area rugose next to the bounding carinæ. Petiole apically very broad, a little raised medially on the basal half; all the tergites shining, with numerous minute piliferous punctures; second tergite fully twice as broad as long, third tergite fully three times as broad as long. Areolet long, second abscissa of the radius longer than the second transverse cubital nervure; distance between the second recurrent and second transverse cubital nervure equal to less than half the length of the latter nervure.

Hab. S. Australia.

This is very distinct in the pilosity of the whole insect, the robust and broad abdomen, and the black and rather short antennæ.

LABIUM SUBPILOSULUM, sp. n.

♀. Fulvo-ferruginea; antennis omnino, mandibulisque apice nigris; capite, propleuris supra, tegulis, mesopleuris macula magna sub alis anticis, scutello, postscutello, coxisque anticis intermediisque flavis; tibiis posticis apice tarsisque posticis articulo apicali infuscatis; alis hyalinis, iridescentibus, venis fuscis.

Long. 7 mm.

♀. Mandibles simple; clypeus and face fused, without a dividing-line, sparsely punctured, with fine hairs springing from the punctures. Antennæ 37-jointed, third joint distinctly shorter than the fourth and fifth combined, the joints becoming transverse about the twelfth. The emargination of the eyes is almost obsolete; front and vertex smooth and shining. Mesonotum shining, with a few sparse and very small punctures, the median lobe rather more closely punctured, not prominent; notauli short and shallow. Mesopleuræ anteriorly sparsely punctured on the upper half, closely punctured rugulose on the lower half, smooth posteriorly; the epimeral sulcus crenulated on the upper half only. Median segment with the apical carina of the basal area broadly interrupted in the middle; areola and petiolar area finely rugulose, not distinctly divided; external area smooth and shining; dentiparal areæ rugulose, without spines; spiracular

and pleural areae finely punctured. Petiole with the basal teeth blunt and not very prominent, spiracles only feebly prominent. Hind coxæ and femora sparsely punctured. Apical tergites with sparse hairs. Second abscissa of the radius very little shorter than the second transverse cubital nervure, distance between the recurrent and second cubital nervures not quite equal to half the length of the latter nervure.

Hab. Victoria (*C. French*). 1 ♀.

In the fused condition of the face and clypeus this resembles *pilosum*, but is much less pilose, very different in colour and in the number of antennal joints. The antennæ are very feebly thickened to the apex, but are not as stout in this species as in *pilosum*.

LABIUM SPINIFERUM, sp. n.

♀. Fulvo-ferruginea; antennis 43-articulatis, articulis 20 basilibus fulvo-ferrugineis, 21-34 infuscatis, 35-43 ochraceis; labro facieque marginibus, orbitis internis, genubus, mesonoto antice lateribus angustissime, propleuris antice, coxis anticis, tegulis, macula sub alis anticis, macula parva sub alis posticis, mesopleuris macula magna mediana, macula magna ante coxas intermedias, mesonoto angulis posticis anguste, scutello, postscutello, sulco epimerali, segmentoque mediano fascia lata transversa apicali, areaque pleurali flavis; alis leviter infuscatis, venis fuscis.

Long. 10 mm.

♀. Clypeus and face rather strongly punctured, the face in the middle rugulose longitudinally; labrum very long, distinctly longer than the clypeus, more finely punctured; mandibles simple. Eyes distinctly, but shallowly emarginate a little above the base of the antennæ; third antennal joint fully as long as the fourth and fifth combined, the eight basal joints of the funicle cylindrical. Front and vertex finely punctured; mesonotum shining, finely and evenly punctured, the median lobe prominent; notauli well developed, not very short; pleuræ shining, almost smooth, the epimeral furrow crenulated on the upper half; scutellum and postscutellum almost smooth. Median segment with the basal area not closed apically, the apical carina being obsolete; areola almost smooth, distinctly divided from the rugulose petiolar area; external and dentiparal areae finely and sparsely punctured, each produced into a small tooth at the external apical angle, that of the external area being stouter and less acute than that of the dentiparal; spiracular area finely punctured-rugulose; pleural area finely punctured, with larger punctures intermingled. Spiracles of the petiole prominent, a very feebly developed tooth on each side between the spiracles and the base. Hind coxæ finely punctured above, closely punctured-rugulose on the outer side and beneath. Second abscissa of the radius a little shorter than the second transverse cubital nervure; the distance between the recurrent and second transverse cubital nervures

equal to slightly more than half the length of the latter nervure.

Hab. Yallingup, S.W. Australia; October (*Turner*). 1 ♀.

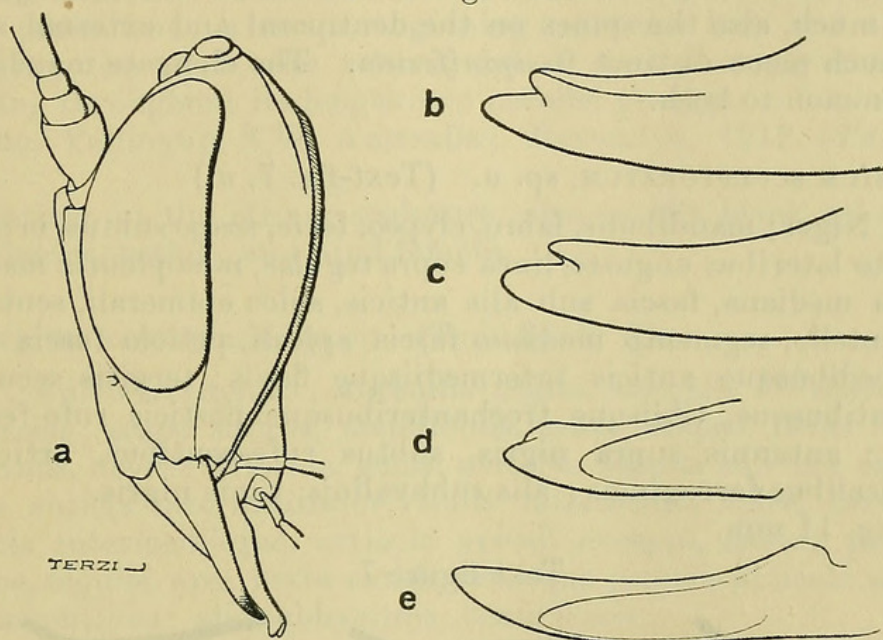
Distinguished from other species by the minute, but distinct, teeth on the median segment.

LABIUM VASSEANUM, sp. n. (Text-fig. 6, *a, e.*)

♂. Fulvo-ferrugineus; mandibulis, apice nigris, labro, clypeo facie, scapo subtus, pronoto macula parva laterali, mesopleuris macula magna, macula sub alis anticis, macula parva sub alis posticis, macula ante coxas intermedias, scutello, postscutello, segmento mediano macula magna apicali, areaque juxta-coxali flavis; antennis nigris, apice haud ferrugineis; alis subhyalinis, venis fuscis.

Long. 9 mm.

Text-figure 6.



- | | | | |
|-----|---------------------------|----------------|----------------|
| (a) | <i>Labium vasseanum</i> | Turn. & Wtrst. | Head, profile. |
| (b) | <i>Labium hobartense</i> | " " | Mandible. |
| (c) | <i>Labium occidentale</i> | " " | " |
| (d) | <i>Labium subaequale</i> | " " | " |
| (e) | <i>Labium vasseanum</i> | " " | " |

♂. Mandibles elongate, acute (text-fig. 6, *e*) at the apex; labrum very long. Clypeus and face (text-fig. 6, *a*) shining, sparsely punctured, the face longitudinally rugulose in the middle. Antennæ 36-jointed, third joint more than half as long again as the fourth, the fifth distinctly shorter than the fourth. Mesonotum shining, very sparsely and finely punctured, the median lobe rather prominent anteriorly and more closely punctured, notauli very short; mesopleuræ shining, with a few scattered punctures; epimeral sulcus crenulated on the upper half. Median segment with the

apical carina of the basal area broadly interrupted in the middle; areola smooth, the carina dividing it from the petiolar area complete; petiolar area smooth; postero-intermedial area with a few longitudinal striæ; external area with a few minute punctures; dentiparal area smooth in the middle, with a few punctures on the sides and a minute tooth at the external apical angle; spiracular area finely punctured-rugulose; pleural and juxta-coxal areae not divided, smooth. Petiole narrow at the apex, without teeth between the base and the spiracles. Hind empodia not very long, not more than two-thirds of the length of the tarsal unguis. Both transverse cubital nervures somewhat oblique and longer than the second abscissa of the radius, the distance between the recurrent nervure and the second transverse cubital nervure less than half as great as the length of that nervure.

Hab. Yallingup, S.W. Australia; October, 1913 (*Turner*).

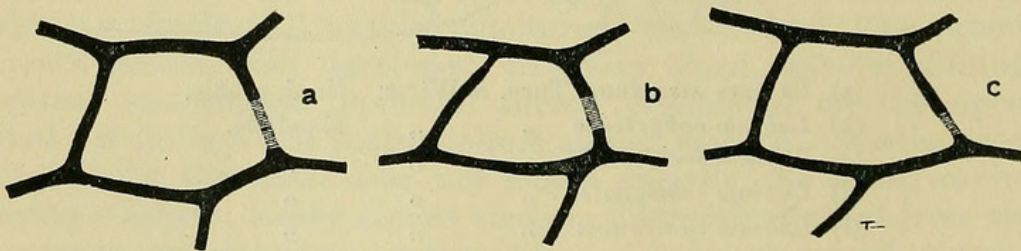
Nearly allied to *L. spiniferum*, of which it may be the male, but the colour of the antennæ and the number of antennal joints differ much, also the spines on the dentiparal and external areae are much more distinct in *spiniferum*. The elongate mandibles are common to both.

LABIUM SCULPTURATUM, sp. n. (Text-fig. 7, a.)

♂. Niger; mandibulis, labro, clypeo, facie, scapo subtus, orbitis, pronoto lateribus anguste, linea supra tegulas, mesopleuris macula magna mediana, fascia sub alis anticis, sulco epimerali, scutello, postscutello, segmento mediano fascia apicali, petiolo fascia apicali, pedibusque anticis intermediisque flavis; tergitis secundo sequentibusque, tibiisque trochanteribusque posticis rufo-ferrugineis; antennis supra nigris, subtus rufescentibus, articulis 13 apicalibus ferrugineis; alis subhyalinis, venis nigris.

Long. 11 mm.

Text-figure 7.



Areolet (right wing):—(a) *Labium sculpturatum* Turn. & Wtrst. (b) *Labium ferrugineum* Cam. (c) *Labium petitorium* Erichs.

♂. Face much broader than long, face and clypeus sparsely but not very finely punctured. Antennæ 42-jointed, third joint more than half as long again as the fourth, the fifth distinctly shorter than the fourth, the joints as far as the sixteenth longer than broad, those beyond transverse. Mesonotum with the middle lobe prominent; notauli short, but deep and crenulate; the median lobe densely punctured anteriorly, sparsely posteriorly;

lateral lobes and the scutellum sparsely punctured; mesopleuræ antero-ventrally closely and rather strongly punctured, smoother elsewhere; the epimeral sulcus coarsely crenulate throughout. Median segment with the basal area and areola confluent; areola smooth, with a few punctures, posteriorly rugulose; petiolar area separated, transversely rugose, as also are the adjacent areæ; external area smooth, very bluntly raised at the external apical angle; dentiparal area coarsely rugulose, with a small tooth at the external apical angle; spiracular area coarsely punctured anteriorly, rugose posteriorly; pleural and juxta-coxal areæ strongly striate, with a few punctures between the striæ. Hind coxæ externally coarsely, hind femora much more closely and finely punctured. Second abscissa (text-fig. 7, *a*) of the radius barely longer than the second transverse cubital nervure; the distance between the recurrent nervure and the second transverse cubital nervure more than half of the length of the latter nervure. Petiole without a tooth between the base and spiracles, the latter very prominent; a carina beginning near the base and almost reaching the apex, the central raised area strongly marked, bearing throughout its length two parallel grooves.

Hab. Yallingup, S.W. Australia; November, 1913 (*Turner*).
1 ♂.

Distinct in the strong sculpture, also in the black colour of the thorax, petiole, and hind femora.

LABIUM SUBÆQUALE, sp. n. (Text-fig. 6, *d*.)

♀. Fulvo-ferruginea; antennis nigris, articulis 10 apicalibus ochraceis; scapo subtus, mandibulis, labro, clypeo, facie, fronte lateribus, orbitis externis, genis, scutello, macula sub alis anticis, coxis anticis intermediisque, tibiis intermediis apice, tarsisque anticis intermediisque, articulo apicali excepto, flavis; pronoto antice, tegulis, area juxta-coxali, tarsisque posticis articulo apicali nigrescentibus; alis subhyalinis, venis fuscis.

Long. 9 mm.

♀. Mandibles (text-fig. 6, *d*) obscurely bidentate, blunt, the second tooth indicated by an external sulcus; clypeus and face sparsely punctured, the line of division between them distinct, but not strong. Antennæ 36-jointed, the third and fourth joints subequal, the third seen in profile slightly shorter than the fourth. Mesonotum smooth, with scattered punctures, the notauli rather long; propleuræ strongly crenulate in front; mesopleuræ shining, closely and very finely punctured on the lower half; epimeral sulcus crenulate throughout, the lower crenulations more strongly developed than usual. Median segment with the apical carina of the basal area interrupted in the middle; areola smooth, slightly rugulose at the sides; external area smooth; dentiparal area rugulose; spiracular area coarsely punctured anteriorly, rugulose posteriorly; pleural area striate-rugulose, separated from the juxta-coxal area by a carina reaching to one-half, the latter

area rugose. Petiole with the lateral teeth between the spiracles and the base well developed; spiracles prominent, obscurely striate between the spiracles, the remainder of the segment smooth and convex; before the spiracles the raised area is distinct. Hind coxæ closely and rather finely punctured, femora very finely punctured. Second abscissa of the radius about equal to the second transverse cubital nervure, the latter fully twice as long as the distance between it and the recurrent nervure.

Hab. Yallingup, S.W. Australia; October and November, 1913 (*Turner*).

LABIUM OCCIDENTALE, sp. n. (Text-fig. 6, c.)

♀. Fulvo-ferruginea; antennis infra obscure ferrugineis, supra nigrescentibus, articulis 13 apicalibus rufo-ferrugineis; scapo subtus, mandibulis, apice nigris, labro, clypeo, facie, orbitis externis, scutello, postscutello, macula ante tegulas, mesopleuris maculis duabus, macula sub alis posticis, macula supra coxas intermedias, segmento mediano fascia transversa obscura post medium, coxisque trochanteribusque anticis intermediisque flavis; fronte in medio, propleuris antice, mesopleuris antice et inter maculas flavas, scutello postscutelloque lateribus, petiolo dimidio basali, area juxta-coxali, tibiis posticis apice supra, tarsisque posticis articulo apicali nigrescentibus; alis subhyalinis.

Long. 10 mm.

♂. Differt occipite, temporibus, mesopleuris, segmento mediano, notaulis, mesonoto lateribus, petiolo, apice excepto, coxis posticis basi et apice supra, femoribus tibiisque posticis apice, nigrescentibus; tarsis posticis infuscatis; pedibus anticis intermediisque omnino flavis.

♀. Differs from *subaequale* in the strongly bidentate (text-fig. 6 c) mandibles, the upper tooth much shorter than the lower, in the much more strongly punctured face, in the generally stronger puncturation, and in the sculpture of the hind coxæ and femora, which are shining, with large punctures in *occidentale*, whereas in *subaequale* the hind femora are subopaque and very closely covered with minute punctures.

Hab. Yallingup, S.W. Australia; October (*Turner*).

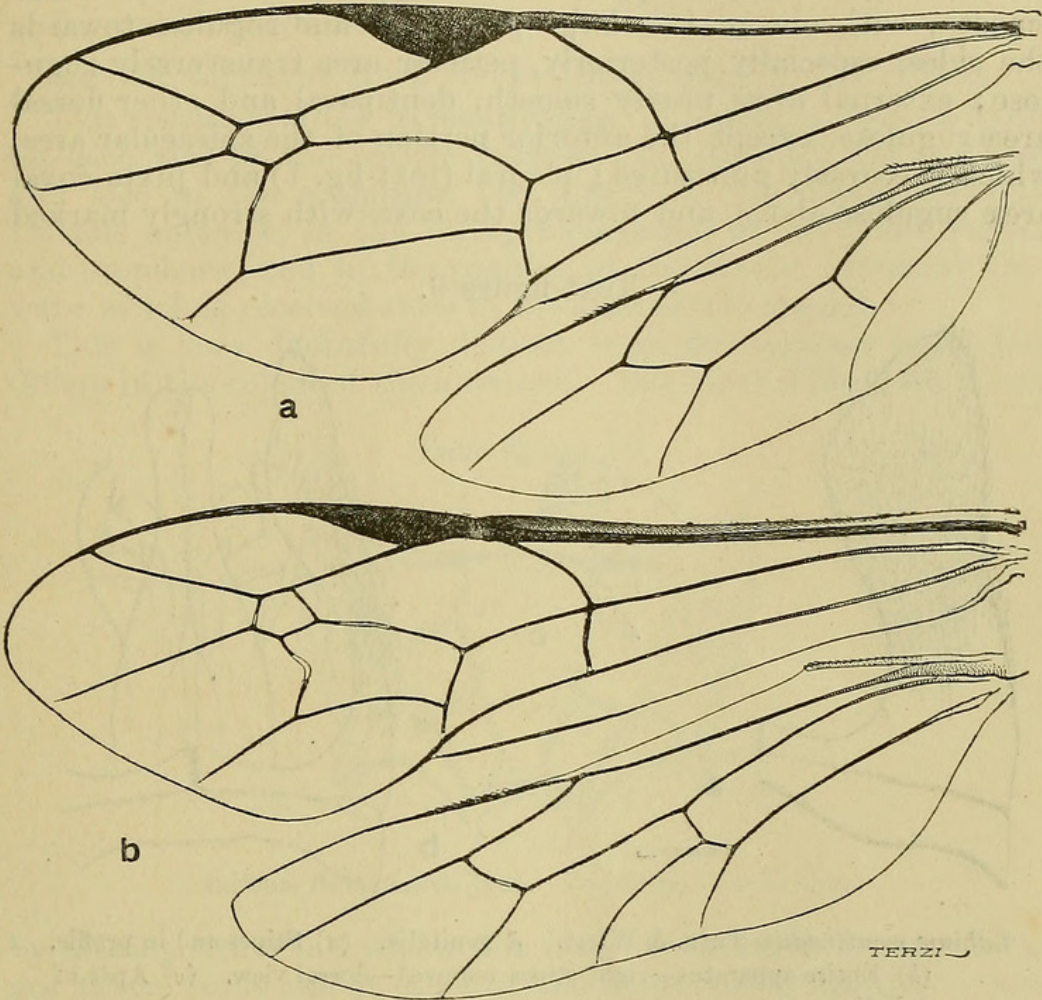
LABIUM MONTIVAGUM, sp. n. (Text-figs. 1, 4 a, 8, 9, and 11 a.)

♂. Niger; mandibulis, apice excepto, labro, clypeo, facie, orbitis anguste, callis humeralibus, linea sub alis anticis, mesopleuris macula parva mediana, macula parva sub alis posticis, scutello, postscutello macula mediana, pedibusque anticis intermediisque flavis; segmentis abdominalibus secundo sequentibusque, femoribus posticis, apice nigris, tibiis posticis, apice nigris, tarsisque posticis articulis quatuor basalibus rufo-ferrugineis; antennis subtus (articulis tribus basalibus exceptis) articulisque 11 apicalibus supra, ochraceis; alis hyalinis, venis fuscis.

♀. Differt scapo subtus flavo; thorace ferrugineo, flavo-maculato, propleuris infra, mesopleuris antice, scutelloque sulco basali nigris; segmento mediano, coxis posticis, femoribusque posticis ferrugineis, apice nigro-maculatis; pedibus anticis intermediisque fulvo-ferrugineis.

Long. ♀ ♂ 9-10 mm.

Text-figure 8.

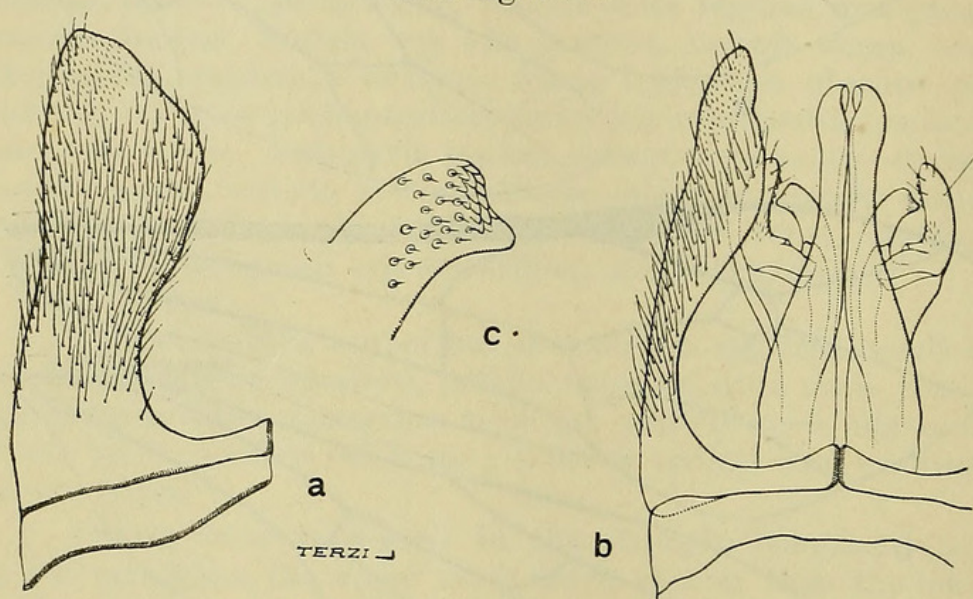


Wings :—(a) *Pæcilocryptus nigromaculatus* Cam. (b) *Labium montivagum* Turn. & Wtrst.

♀. Labrum, clypeus, and face rather sparsely, but not finely punctured; the dividing line between the face and clypeus rather indistinct, the face broader than long; mandibles simple. Antennæ from 32- to 36-jointed, usually 35 or 36; third joint equal to the two following. Front shining, sparsely and finely punctured at the sides, rather more strongly below the ocelli, occiput finely and closely punctured. Thorax shining; the mesonotum sparsely punctured, more closely on the median lobe; notauli very distinct, but short, more or less crenulate; scutellum and postscutellum smooth and impunctate; propleuræ anteriorly rugulose, posteriorly crenulate, centrally slightly raised and rather sparsely punctured; mesopleuræ ventrally rather closely

and not finely punctured, posteriorly smooth, the smooth area narrowing ventrally; epimeral sulcus entirely crenulate, with one or two large foveæ at its ventral extremity. Sternum shining, moderately closely punctured, one or two large foveæ outside the intermediate coxæ close to the extremity of the epimeral sulcus. Median segment coarsely sculptured; apical carina of the basal area broadly interrupted in the middle, the basal area smooth and shining; areola and petiolar area fully separated, the former smooth, with one or two large punctures and rugulose towards the sides, especially posteriorly, petiolar area transversely rugulose; external area nearly smooth, dentiparal and other dorsal area rugulose, except the anterior portion of the spiracular area, which is coarsely punctured; pleural (text-fig. 1) and juxta-coxal area rugulose above, and towards the coxæ with strongly marked

Text-figure 9.



Labium montivagum Turn. & Wtrst. ♂ genitalia. (a) Stipes and in profile. (b) Entire apparatus—right stipes removed—dorsal view. (c) Apex of volsella.

ridges, so that anteriorly this area is crenulate. Spiracles of the petiole just behind the middle, much nearer to each other than to the apex of the segment, a well-defined tooth (text-fig. 11, *a*) on each side of the petiole, nearer to the base than to the spiracle; the central dorsal portion of the petiole basally distinctly raised, with a sulcus near each spiracle; gastrocœli distinct, finely punctured, abdomen otherwise smooth. Second abscissa of the radius a little shorter than the second transverse cubital nervure, distance between the recurrent nervure and the second transverse cubital nervure more than half as great as the length of the latter nervure. Externally the hind coxæ and femora are sparsely but rather deeply punctured. Tarsal unguis etc., text-fig. 4, *a*.

Hab. Mt. Wellington, Tasmania; January and February, 1913 (Turner). A long series.

The male has the face almost square, the sculpture is somewhat coarser, especially on the median segment. The sculpture of the areola in the male shows considerable variation; in some specimens there are coarse transverse rugæ, which are only rather feebly indicated in others. The teeth on the sides of the petiole are remarkable, also the sexual colour differences.

The female is the type.

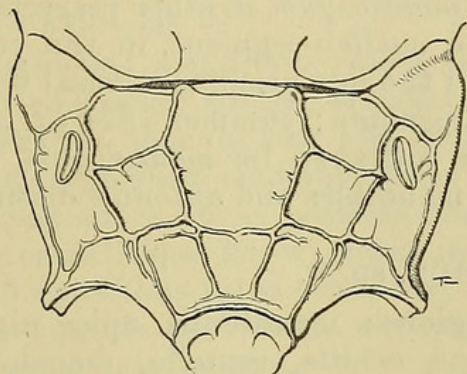
LABIUM CLAVICORNE Morl.

Labium clavicorne Morl. Revis. Ichneum. iv. p. 151 (1915).

This species is allied to *montivagum* in having a distinct tooth on each side of the petiole between the spiracles and the base and also in the sculpture, but differs in the almost entirely fulvous antennæ, in the ferruginous colour of the front, vertex and propleuræ, and in the position of the second recurrent nerve which is received close to the apex of the areolet.

This is very doubtfully distinct from *ferrugineum* Cam., but differs in the colour of the antennæ. The other differences given

Text-figure 10.



Labium ferrugineum Cam. Propodeon; dorsal view.

by Morley either fall within the range of individual variation or are taken from one or other of the three males marked by him as co-types, one of which is certainly specifically distinct, not at all nearly related to the other two, in which the thorax is mostly black, having only the mesonotum and a patch on the mesopleuræ ferruginous. These are probably the true males of *clavicorne*, which species probably takes the place of *montivagum* on the mainland.

Hab. Victoria (*French*).

LABIUM FERRUGINEUM Cam. (Text-figs. 7 *b* and 10.)

Labium ferrugineum Cam. Ann. & Mag. Nat. Hist. (7) vii. p. 530 (1901). ♀.

This species seems to differ from *clavicorne* Morl. only in the colour of the antennæ, which are black above and brownish on the apical half beneath; the scape is yellow beneath in both forms. Cameron's type is in a dirty condition.

The locality given is Australia.

The nervulus is distinctly postfurcal, not differing appreciably from *clavicorne* in this respect, in spite of Morley's statement to the contrary.

LABIUM HOBARTENSE, sp. n. (Text-fig. 6, b.)

♀. Fulvo-ferruginea; antennis supra nigro infuscatis, articulis 13 apicalibus ferrugineis; mandibulis dimidio basali, labro, clypeo, facie, fronte lateribus, coxis trochanteribusque anticis intermediisque, maculis duabus sub alis anticis, macula sub alis posticis, macula supra coxas intermedias, sulco epimerali, scutello, postscutello, segmento mediano fascia transversa post medium coxam posticam attingente, tergitisque fascia apicali angustissima flavis; petiolo, area juxta-coxali, tarsisque posticis articulo apicali nigrescentibus; alis subhyalinis, venis nigris.

Long. 11 mm.

♀. Mandibles bidentate (text-fig. 6, b), rather short; face shining, sparsely and finely punctured, broader than long. Antennæ 42-jointed, third joint a little shorter than the fourth and fifth combined.

Very similar to *montivagum* in other respects; differing in the yellow band on the median segment, in the yellow apical bands of the tergites, and the less prominent basal teeth of the petiole.

Hab. Hobart, Tasmania; summer 1891 (*J. J. Walker*).

Might easily be mistaken for *montivagum*, but the structural differences in the mandibles and antennæ distinguish it at once.

LABIUM ASSOCIATUM, sp. n.

♀. Fulvo-ferruginea; mandibulis, apice nigris, labro, clypeo, facie, scapo subtus, orbitis, scutello, macula sub alis anticis, mesopleuris antice macula, coxisque trochanteribusque anticis intermediisque flavis; scutello sulco basali, tibiis posticis apice supra, tarsisque posticis, basi anguste ferrugineis, nigris; alis hyalinis, iridescentibus, venis nigris.

Long. 8 mm.

♀. Clypeus and face shining, very sparsely punctured, face much broader than long; mandibles simple. Antennæ 36-jointed, fulvous, somewhat infuscate above to beyond the middle, the third joint about half as long again as the fourth, the fifth distinctly shorter than the fourth. Eyes very feebly sinuate opposite the base of the antennæ; front and vertex shining, almost smooth, with a few minute punctures, Mesonotum shining, almost smooth, the median lobe sparsely punctured anteriorly; notauli rather short; mesopleuræ smooth on the upper half, sparsely and finely punctured on the lower half; epimeral sulcus finely crenulate throughout. Median segment with the apical carina of the basal area broadly interrupted in the middle; areola not separated from the petiolar area, the dividing carina only feebly indicated at the sides, areola smooth in the middle, finely

rugulose at the sides, petiolar area with the same sculpture as the areola; the areæ adjacent to the petiolar area rugulose; external area smooth, dentiparal area subrugulose, a minute tooth at the external apical angle of both the external and dentiparal areæ; spiracular area strongly rugulose, anteriorly punctured-rugulose; pleural area superiorly rugulose with a few deep punctures, ventrally with three or four large complete rugæ, which merge with those of the juxta-coxal area, the carina dividing the two areæ well defined to about one-half. Petiole with a well-developed tooth on each side between the base and the spiracles; the petiole with a rather stronger sculpture than is usual in the genus, behind the spiracles the surface in the middle subrugulose, before the spiracles the raised median area is very distinct. Hind coxæ and femora smooth on the outside, with large irregular punctures. Second abscissa of the radius a little shorter than the distance between the recurrent nervure and the second transverse cubital nervure, and only a little more than half as long as the latter nervure.

Hab. Mundaring Weir, W. Australia; March 18, 1914 (*Turner*).

LABIUM APPROXIMATUM, sp. n.

♂. Fulvo-ferrugineus; mandibulis, apice nigris, labro, clypeo, facie, fronte lateribus, scapo subtus, scutello, postscutello, mesopleuris maculis duabus, macula sub alis posticis, macula supra coxas intermedias, segmento mediano fascia dorsali transversa post medium, macula supra coxas posticas, coxisque trochanteribusque anticis intermediisque flavis; antennis ferrugineis, supra nigris, articulis 15 apicalibus fulvo-ochraceis; coxis posticis apice supra, mesopleuris macula post coxas anticas, area juxta-coxali, petioloque ante spiracula infuscatis.

Long. 12 mm.

♂. Mandibles simple; clypeus and face closely, evenly, and rather strongly punctured, the line between the face and clypeus very distinct; malar space short, only half as broad as the base of the mandible. Front smooth, with sparse punctures. Antennæ 47-jointed, third joint almost as long as the fourth and fifth combined, the joints becoming transverse at about the 22nd or 23rd. Mesonotum shining, finely and rather closely punctured, the median lobe prominent and more closely punctured; notauli long. Scutellum and postscutellum shining, finely punctured; propleuræ rather strongly punctured; mesopleuræ punctured on the lower half, the epimeral sulcus strongly crenulate. Median segment with the apical carina of the basal segment broadly interrupted in the middle; areola shining, with a few lateral punctures, its apical keel well defined; external area finely and closely punctured; dentiparal area rugulose, both the external and dentiparal areæ with a small tooth at the external apical angle, and a minute tooth also at the inner apical angle of the dentiparal area; spiracular area anteriorly finely and closely

punctured, posteriorly rugulose; pleural area rugulose-punctate; juxta-coxal area with six or seven strong striæ. Basal tooth of petiole blunt, not prominent, spiracles prominent; basal area of petiole indistinct. Hind coxæ and femora shining, externally closely and finely punctured. Second abscissa of the radius considerably longer than the second transverse cubital nervure; distance between the recurrent nervure and the second transverse cubital nervure equal to more than half the length of the latter nervure.

Hab. Victoria (*C. French*). 1 ♂.

This is one of the males selected by Morley as a co-type of his *L. clavicorne*, to which it is not at all nearly allied.

LABIUM FULVICORNE, sp. n.

♀. Fulvo-ferruginea; antennis articulis apicalibus fulvo-ochraceis; mandibulis, apice excepto, labro, clypeo, facie lateribus, mesonoto margine laterali anguste, scutello, postscutello, propleuris infra, macula horizontali sub alis anticis; sulcoque epimerali flavis; tarsis posticis nigris, metatarso apice solum nigro; alis sordide hyalinis, venis nigris, stigmatibus fusco-ferrugineo.

Long. 10-12 mm.

♀. Clypeus and labrum sparsely, face more closely punctured; clypeus not on the same plane with the face, divided from it by a distinct groove, the face broader than long; front smooth, occiput with a few small punctures. Antennæ 46-jointed, more than three-quarters of the length of the whole insect; third joint fully as long as the fourth and fifth combined. Thorax shining and almost smooth, the median lobe of the mesonotum alone distinctly punctured; notauli short, only distinct anteriorly. Epimeral groove very finely crenulated above, smooth below. Area of the median segment smooth and shining, the external, pleural, and spiracular areae very finely punctured; petiolar area with a few scattered punctures; basal area very short, the carina separating it from the areola narrowly broken in the middle, the areola completely divided from the petiolar and dentiparal areae. Hind coxæ shining, very sparsely punctured, reaching as far as the apex of the petiole. Second abscissa of the radius longer than the second and nearly as long as the first transverse cubital nervure, the distance between the second recurrent nervure and the second transverse cubital nervure a little less than half as great as the length of the latter nervure.

Hab. Yallingup, S.W. Australia; October and November, 1913 (*Turner*).

In this and some closely-allied species the external area of the median segment is more distinctly sculptured than the dentiparal area, the reverse being the usual condition in the genus. The probable male of this species has the pleuræ and fore legs almost entirely yellow, also a broad transverse band at the apex of the median segment and the pleural areae. The number of joints in the antennæ is 41-44. These males are much smaller

than the female, measuring from seven to nine millimetres, and the hind tarsi are not black.

LABIUM MULTIARTICULATUM, sp. n.

♀. Fulvo-ferruginea; flagello supra fusco, articulis 13 apicalibus ochraceis, infra ochraceo; scapo subtus flavo; mandibulis, labro, clypeo, facie, propleuris antice, fascia sub alis, mesopleuris fascia lata maculaque arcuata supra coxas intermedias, scutello, postscutello, mesonoto fascia apicali areaque pleurali, coxisque anticis intermediisque flavis; alis subhyalinis, venis fuscis, stigmatate fusco-ferrugineo.

♂. Feminae similis; flagello articulis 10 apicalibus solum supra ochraceis; mesonoto lateribus flavo-marginatis, mesopleuris fere omnino flavis, trochanteribusque anticis intermediisque flavis.

Long. ♀ ♂ 10–11 mm.

♀. Labrum long, rather narrowly rounded at the apex; face distinctly broader than long, face and clypeus shining, sparsely, but rather deeply punctured. Antennæ usually from 51- to 53-jointed (51 in the type ♀), sometimes with one or two joints more or less; third joint a little shorter than the fourth and fifth combined; front and vertex shining, almost smooth. Mesonotum shining, finely punctured, rather closely on the median, very sparsely on the lateral lobes, the median lobe not prominent, notauli short; mesopleuræ shining, sparsely and finely punctured, more closely on the lower than on the upper half; epimeral sulcus crenulate on the upper half only, the striæ oblique. Median segment with the apical carina of the basal area obsolete, except at the sides; areola shining, sparsely and finely punctured, the basal carina of the petiolar area well defined; external areæ finely punctured, dentiparal areæ smooth and shining; spiracular area punctured; pleural area very sparsely punctured, not separated from the smooth juxta-coxal area; petiolar and adjacent areæ punctured. Petiole without any clearly-defined lateral teeth between the spiracles and the base, spiracles not prominent. Second abscissa of the radius very slightly longer than the second transverse cubital nervure; the distance between the recurrent and the second transverse cubital nervure equal to about half the length of the latter nervure.

Hab. Yallingup, S.W. Australia; October and November, 1913 (*Turner*).

Near *fulvicorne*, but may be distinguished by the greater number of antennal joints. The third antennal joint is distinctly shorter than in *fulvicorne* and the antennæ less clavate. The male of the present species is generally larger and more robust than that of *fulvicorne*.

LABIUM LONGICORNE, sp. n.

♂. Fulvo-ferrugineus; mandibulis, apice nigris, labro, clypeo, facie, scapo subtus, scutello, postscutello, propleuris antice, prosterno, mesopleuris maculis duabus sub alis anticis, sulco epimerali,

coxisque trochanteribusque anticis flavis; antennis ferrugineis, scapo pedicelloque supra leniter infuscatis; alis hyalinis, venis fuscis.

Long. 9 mm.; antennarum long. 7 mm.

♂. Very near *L. multiarticulatum*, but differs in the colour of the antennæ, in the absence of a yellow apical band on the median segment, in the distinctly shorter third antennal joint (in *multiarticulatum* this joint is twice as long as broad, in the present species rather less than half as long again as broad), and in the smooth external area of the median segment. The antennæ are 49-jointed.

Hab. Swan River, W. Australia (*Du Boulay*).

LABIUM BICOLOR Brullé.

Labium bicolor Brullé, Hist. Nat. Insect. Hymén. iv. p. 316 (1846). ♂.

Hab. New Guinea.

This species, the type of the genus, is unknown to us.

Genus PÆCILOCRYPTUS Cam.

Pæcilocryptus Cam. Ann. & Mag. Nat. Hist. (7) vii. p. 527 (1901).

Cameron's description of this genus is good, and he is probably correct in connecting the genus with the *Phygadeuonini*, though, as he remarks, it has no near relationship with any other genus. Cameron only gives Australia as the locality for his species, which, however, we can now record from Tasmania, together with a new species described below.

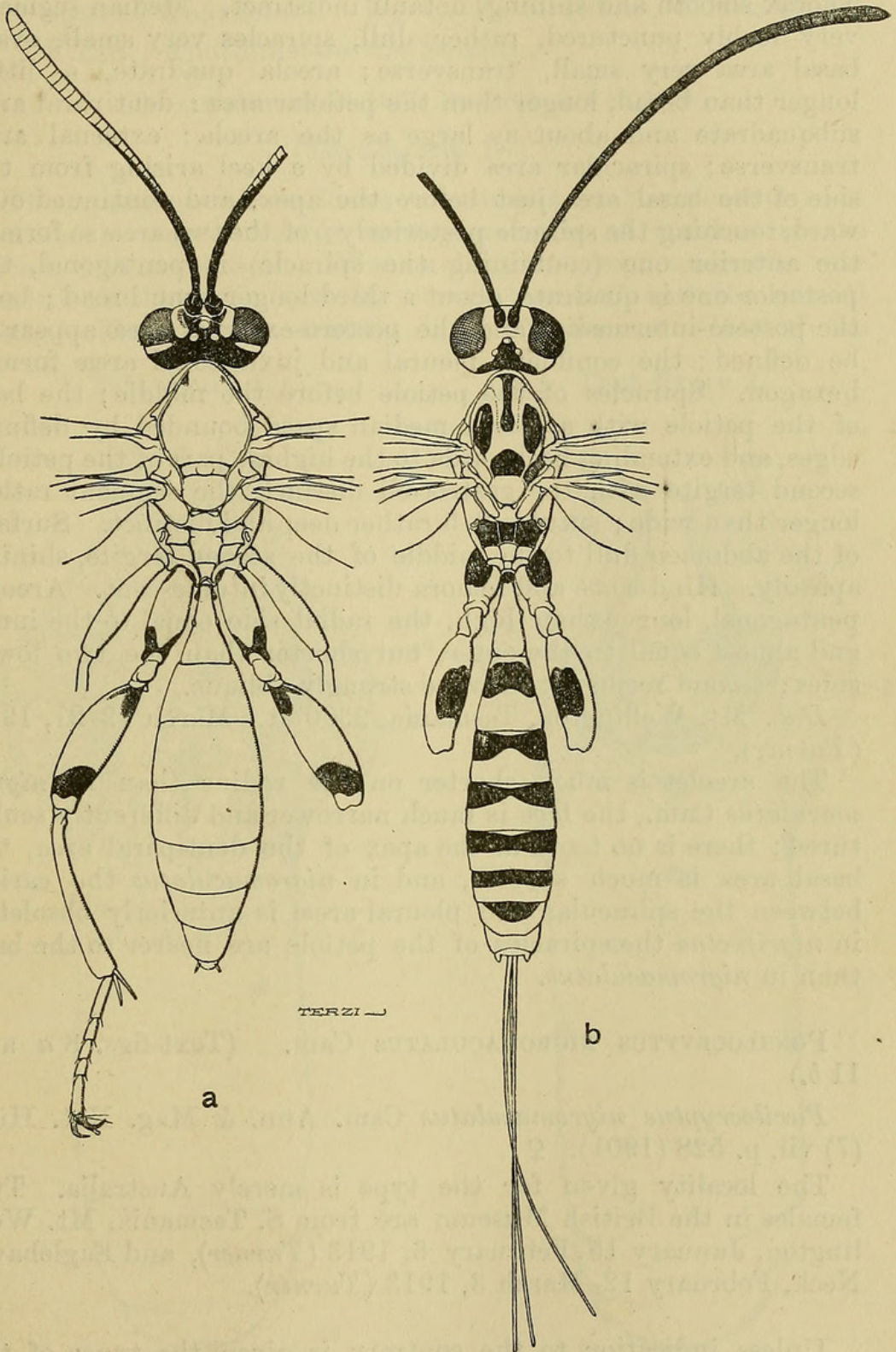
PÆCILOCRYPTUS NIGRIPECTUS, sp. n.

♀. Flava; mandibulis apice extremo, antennis, articulis sex basalibus subtus flavis, fronte supra antennas, area circa ocellos, occipite, mesonoto fascia longitudinali lata antice, usque ad medium attingente, lateribus et margine postico late, mesosterno, scutello basi, segmento mediano basi, lateribus late, supra augustissime, tergito tertio, apice extremo excepto, tergito sexto, valvulis terebræ, femoribus posticis macula magna extus intusque, tibiisque posticis apice nigris; alis hyalinis, iridescentibus, venis fuscis.

Long. 5.5 mm.; terebræ long. 2.5 mm.

♀. Antennæ 22-jointed, the basal joints very slender, the apical joints strongly thickened, the last seven broader than long, the five basal joints of the flagellum long and slender, joints 6 to 9 slightly thickened, from the tenth more abruptly thickened, attaining the greatest breadth at the fifteenth. Face longer than broad by at least one-third, with a short narrow sulcus, which is medially enlarged and extends downwards to the middle of the face. Clypeus and face smooth and shining. Eyes

Text-figure 11.



(a) *Labium montivagum* Turn. & Wtrst. (b) *Pæcilocryptus nigromaculatus* Cam.

separated from the base of the mandibles by less than the breadth of the mandible. Front concave, the concave area extending as far back as the anterior ocellus, vertex smooth and shining. Thorax smooth and shining, notauli indistinct. Median segment very feebly punctured, rather dull, spiracles very small, oval; basal area very small, transverse; areola quadrate, a little longer than broad, longer than the petiolar area; dentiparal area subquadrate and about as large as the areola: external area transverse; spiracular area divided by a keel arising from the side of the basal area just before the apex, and continued outward, touching the spiracle posteriorly; of the two areas so formed the anterior one (containing the spiracle) is pentagonal, the posterior one is quadrate, about a third longer than broad; both the postero-intermedial and the postero-external areas appear to be defined; the confluent pleural and juxta-coxal areas form a hexagon. Spiracles of the petiole before the middle; the base of the petiole with a raised median space bounded by definite edges, and extending backwards to the highest part of the petiole; second tergite with the gastrocœli distinct, the segment rather longer than wide; sutures 2-5 rather deep and distinct. Surface of the abdomen dull to the middle of the second tergite, shining apically. Hind coxæ and femora distinctly intumescent. Areolet pentagonal, longer than high, the radial side equal to the inner and almost equal to the outer, but shorter than the two lower sides; second recurrent nervure strongly oblique.

Hab. Mt. Wellington, Tasmania, 2300 ft., March 12-21, 1913 (*Turner*).

The areolet is much shorter on the radius than in *nigromaculatus* Cam., the face is much narrower and differently sculptured; there is no tooth at the apex of the dentiparal area, the basal area is much shorter, and in *nigromaculatus* the carina between the spiracular and pleural areas is anteriorly obsolete; in *nigripictus* the spiracles of the petiole are nearer to the base than in *nigromaculatus*.

PÆCILOCYPTUS NIGROMACULATUS Cam. (Text-figs. 8 *a* and 11 *b*.)

Pæcilocryptus nigromaculatus Cam. Ann. & Mag. Nat. Hist. (7) vii. p. 528 (1901). ♀.

The locality given for the type is merely Australia. Two females in the British Museum are from S. Tasmania, Mt. Wellington, January 15-February 6, 1913 (*Turner*), and Eaglehawk Neck, February 12-March 3, 1913 (*Turner*).

Unless indication to the contrary is given the types of the species described in this paper are females, and all are deposited in the British Museum.



Turner, Rowland E. and Waterston, James. 1920. "A revision of the Ichneumonid genera *Labium* and *Poecilocryptus*." *Proceedings of the Zoological Society of London* 1920, 1–26.

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