

papers—*e. g.*, Rosa (1908)—show eggs, it would seem that the number of females greatly preponderates over that of the males.

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EXPLANATION OF PLATE XI.

- Fig. 1. *Johnstonella catharina*. The entire animal. *Pr.*="horns" of the prostonium; *E.*=epaulettes; *T.*=second pair of tentacles; *Ph.*=pharynx; *Br.*=brain.
 Fig. 2. *Johnstonella catharina*. A single parapodium (*P.*) with *r* its two rami. *Ov.*=ovaries; *f.m.*=fin-membranes; *R.*=rosettes; *ch.or.*=chromophilous organ.
 Fig. 3. *Johnstonella catharina*. Another variety of "tail."

XIX.—*New or little-known Tipulidæ (Diptera).*—XXXVIII.
Australasian Species. By CHARLES P. ALEXANDER, Ph.D.,
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THE species discussed in the present paper are Australian members of the tribe Hexatomini, the majority of the specimens having been taken in Tasmania by Dr. André L. Tonnoir. A few of the species were included in collections made in Tasmania by Mr. Hardy, in Victoria by Director Kershaw of the National Museum and Mr. F. E. Wilson, and on Mt. Kosciusco by Dr. Tillyard. I wish to express my gratitude to all the above-mentioned gentlemen for the opportunity of studying this and abundant additional material in the Tipulidæ. The Tonnoir collections have been returned to Dr. Tonnoir.

The localities in New South Wales, Victoria, and Tasmania where the Tonnoir collections were made have been discussed in an earlier part of this series of papers (Ann. & Mag. Nat. Hist. (9) xix, pp. 18-19, 1927).

Limnophila recta, sp. n.

General coloration dark brown, sparsely pollinose; antennæ short; wings with a faint yellow tinge; stigma pale; wing-disk with a sparse handsome brown pattern; no macrotrichiæ in cells of wing; Sc_1 and Sc_2 beyond the fork of R_s ; cell M_1 present; inner end of cell 1st M_2 arcuated; male hypopygium with the outer dististyle straight, the apex simple, truncate.

Male.—Length about 8.5 mm.; wing 9.6 mm.

Rostrum and palpi brownish black. Antennæ short, if bent backward not extending far beyond the pronotum, dark brown throughout; flagellar segments cylindrical with verticils that are equal to or a little longer than the segments. Head dark grey, the anterior vertex more yellowish with a dusky mark.

Pronotum dark brown, sparsely pollinose. Mesonotal præscutum dark brown, the interspaces slightly yellowish pollinose to leave indications of three slightly indicated stripes of the ground-colour; pseudosutural foveæ black, lying close to the lateral margins. Pleura brownish grey with a short, narrow, darker brown stripe across the anepisternum. Halteres relatively elongate, pale, the knobs more yellowish. Legs with the coxæ testaceous brown, the fore coxæ darker; trochanters brownish yellow; femora brown, paler at base, the tips dark brown; tibiæ light brown, the tips narrowly dark brown; tarsi toward tips passing into dark brown; segments of legs rather conspicuously setiferous. Wings with a faint yellow tinge, the costal region faintly infuscated; stigma pale; wing-disk with a handsome brown pattern, arranged as follows: at base of cells R and M ; origin of R_s ; Sc_2 ; along cord and outer end of cell 1st M_2 ; end of R_s ; fork of M_{1+2} ; ends of all longitudinal veins beyond M_3 ; vein Cu_1 and anal angle seamed with brown; veins brown, darker in the infuscated areas. No macrotrichiæ in cells of wing. Venation: Sc long, both Sc_1 and Sc_2 placed beyond the fork of R_s , Sc_2 near the tip of Sc_1 and exceeding it in length; R_2 dividing the pale stigma, about two-thirds R_{1+2} , and about one-third or less of R_{2+3} ; R_s elongate, angulated at origin; inner ends of cells R_4 , R_5 , and 1st M_2 in very oblique alignment, the latter being strongly arcuated at inner end; cell M_1 about equal to its petiole; $m-cu$ beyond mid-length of cell 1st M_2 , about in alignment with the basal deflection of R_5 ; m shorter than the deflection of M_3 ; anterior arculus present.

Abdomen dark brown, the basal sternites more brownish yellow, except at base; hypopygium dark. Male hypopygium with the basistyles relatively stout, the mesal face at base with longer setæ; interbasal process blunt at tip. Outer dististyle broad, nearly straight, the apex simple, truncated; inner style shorter, setiferous at base. Each gonapophysis with two pointed blades. Caudal margin of ninth tergite with a very shallow notch.

Hab. Tasmania.

Holotype, ♂, Mt. Farrel, February 9, 1923 (*A. Tonnoir*).

Limnophila kershawi, sp. n.

General coloration brown; antennæ small; halteres elongate, pale yellow throughout; wings with a creamy-yellow tinge, in cases sparsely spotted with dark brown, including a larger cloud at the outer ends of cells R_3 and R_4 , in still other cases the wings more uniformly yellow, the spots scarcely indicated.

Male.—Length about 10–12 mm.; wing 10.8–12 mm.

Rostrum and palpi black. Antennæ with the basal segment dark brown, the second segment yellowish brown; flagellum dark brown, the incisures of the basal segments paler; antennæ relatively small, if bent backward not attaining wing-root; flagellar segments elongate-cylindrical to subfusiform, the verticils a trifle longer than the segments. Head dark grey, the anterior vertex relatively narrow; head somewhat narrowed behind.

Pronotum large, brownish grey. Mesonotal præscutum light brown, sparsely pollinose, with three vaguely defined darker stripes, the median area in front with a small blackish line; tuberculate pits lacking; pseudosutural foveæ relatively inconspicuous and lying close to the margin; sentum dark brown; scutellum and postnotum light brown, the latter with indications of a capillary dark line. Pleura brown, the dorso-pleural region somewhat darker brown. Halteres elongate, pale yellow throughout. Legs with the coxæ brownish yellow, the fore and middle coxæ more infuscated; trochanters brownish yellow, the mesal face with a black spot; remainder of legs long and slender, with short inconspicuous setæ; femora brown, the extreme base paler, with a narrow brownish-black subterminal ring, the extreme apex again paler; tibiæ brownish yellow, the tips narrowly dark brown; basitarsi yellowish brown, the tips passing into dark brownish black; remainder of tarsi black. Wings with a creamy-yellow tinge, cells *C* and *Sc* faintly infumed, their outer ends paler, the usual stigmal region

oval, white; a restricted dark brown pattern distributed as follows: in base of cell *R*; a circular spot at origin of *Rs*; *Sc*₂; a cloud at proximal end of stigma, in alignment with a narrow seam along the cord that is broader anteriorly, very restricted at vein *M*; outer end of cell 1st *M*₂; outer ends of cells *R*₂ and *R*₃ strongly and conspicuously darkened; small brown clouds at fork of *M*₁₊₂, and marginal spots on veins *M*₃ to 2nd *A*, the latter large; a small dusky spot before mid-length of the margin of cell 2nd *A*; a vague darker cloud along vein *Cu*₁; veins brown, darker in the infuscated areas. Venation: *Sc*₂ at tip of *Sc*₁ and exceeding the latter in length; *R*₂ very faint, *R*₂₊₃ about one-half *R*₃, both sinuous; *Rs* elongate; inner ends of cells *R*₄, *R*₅, and 1st *M*₂ in oblique alignment, the latter lying more basad; cell *M*₁ one-half longer than its petiole; *m-cu* beyond mid-length of cell 1st *M*₂; anterior arculus present.

Abdominal tergites dark brown, the lateral margins broadly blackened; sternites paler; segments 8 and 9 and the hypopygium paler brown. Male hypopygium with the basistyles relatively long, the mesal face with numerous long conspicuous setæ. Outer dististyle blackened, clavate, a little widened outwardly, the tip very weakly and inconspicuously bifid; a small darkened tubercle near the base of the style; surface of style with delicate erect setæ. Inner dististyle more fleshy, densely covered with erect setæ. Gonapophyses appearing as broad, flattened, yellow blades, the outer surface and margin weakly spinulose. Ædeagus of moderate length, spiraled at base. Caudal margin of the ninth tergite with a small U-shaped median notch, the lobes thus formed subtruncate at their tips.

Hab. Victoria.

Holotype, ♂, Marysvale, April 1925 (*J. A. Kershaw*), in the National Museum, Victoria.

Paratypes, 3 ♂ ♀, Sassafras, Dandenong Range, October 19–20, 1922 (*A. Tonnoir*).

This interesting species is named in honour of Director Kershaw, of the National Museum, Victoria, who collected the type-specimen and to whom I am greatly indebted for many kind favours. The Sassafras paratypes have the wing-pattern much paler, almost uniformly pale yellow, with the dark spots barely indicated. The femora are paler brown to almost yellow, with a relatively narrow darker brown subterminal ring. Despite these differences I must regard the flies as being conspecific, at least until additional data are forthcoming. The female specimen mentioned above is in too poor condition to be made the allotype.

Limnophila jucunda, sp. n.

Belongs to the *jucunda* group; general coloration dark brown, with a sparse yellow pollen; antennæ short; wings with a faint yellow tinge, handsomely variegated with brown spots; Sc_2 at tip of Sc_1 , both lying before the fork of R_s ; cell M_1 present; no macrotrichiæ in cells of wings; male hypopygium with the outer margin of the outer dististyle spinulose back from the tip; interbasal process long and sinuous, acute.

Male.—Length about 5·5 mm.; wing 7–7·2 mm.

Female.—Length about 7 mm.; wing 7·3 mm.

Rostrum and palpi black. Antennæ relatively short, if bent backward extending to about mid-distance of the posterior margin of the pronotum and the wing-root, brownish black throughout; basal flagellar segments cylindrical with the lower face bulging, the segments soon becoming elongate-cylindrical to fusiform, with long conspicuous verticils that exceed the segments in length. Head broad, dark brownish grey.

Pronotum dark brown. Mesonotal præscutum dark yellowish brown, in most cases without distinct markings, in others with intermediate dark stripes indicated behind; both pseudosutural foveæ and tuberculate pits well defined, shiny black, the former placed only a little caudad of the level of the latter, lying transversely, elongate; scutum and scutellum brown with a very sparse yellow pollen; postnotum darker brown than the remainder of the mesonotum. Pleura dark brown, the meron obscure yellow. Halteres short, pale, the knobs light yellow. Legs with the coxæ obscure brownish yellow; trochanters obscure brownish yellow, the inner face at apex darker; femora obscure yellow, with long conspicuous scattered setæ; tibiæ brownish yellow, the tips narrowly infuscated; tarsal segments brownish yellow, passing into darker brown. Wings with a faint yellow tinge, the base and costal region somewhat brighter; a conspicuous brown pattern distributed as follows: at h ; beyond arculus in cells R and M ; origin of R_s ; tips of Sc_1 and Sc_2 ; stigma; cord and outer end of cell *1st* M_2 ; fork of M_{1+2} ; marginal clouds at ends of veins R_3 , R_4 , and the veins beyond M_2 , that at Cu_1 most extensive; veins yellow, darker in the infuscated areas. No macrotrichiæ in cells of wing; on veins relatively sparse, there being none on R_s , R_{2+3+4} , M , Cu_1 , or the Anal veins excepting the distal portion of *1st* A . Venation: Sc_1 ending about opposite three-fourths the length of R_s , Sc_2 at its tip;

Rs angulated at origin; *R*₂ subequal to *R*₁₊₂ and nearly one-third *R*₂₊₃; cells *R*₄, *R*₅, and 1st *M*₂ in transverse alignment; cell 1st *M*₂ elongate, the outer deflection of *M*₃ usually much longer than the shorter transverse *m*; cell *M*₁ shorter than its petiole; *m-cu* approximately its own length or more beyond the fork of *M*; anterior arculus faint to apparently lacking. The allotype female has an adventitious cross-vein in cell *R*₃ of both wings (as in *Dicranophragma*); the paratype male from King River has similar adventitious cross-veins in cell *M* of both wings (as in *Ephelia*).

Abdomen dark brown, the caudal margin of the third tergite vaguely paler; basal sternites with the caudal margins indistinctly obscure yellow. Male hypopygium with the basistyles relatively slender; interbasal process a long, slender, recurved rod, strongly sinuous to the acute apex, the base dilated. Outer dististyle relatively short, chitinized, nearly straight, terminating in a small apical spine, the outer margin back from the tip with smaller and more slender appressed spines that become smaller basally, obsolete at near mid-length of the style; base of style with a few scattered setæ; inner dististyle fleshy, with numerous setæ, including a group of eight to ten elongate bristles at the tip. Ædeagus and gonapophyses short and inconspicuous. Ninth tergite with the median area protuberant, truncated. Ovipositor with the tergal valves long and slender, horn-coloured.

Hab. Tasmania.

Holotype, ♂, Hartz Mts., December 10, 1922 (*A. Tonnoir*).

Allotype, ♀, Strahan, February 1924 (*G. H. Hardy*), in the University of Queensland Collection.

Paratypes, 1 ♂, King River, February 4, 1923 (*A. Tonnoir*); 1 ♂, Strahan, February 6, 1923 (*A. Tonnoir*).

Limnophila jucunda varies considerably in the venation and relative extent of the dark pattern of the wings. I think it is highly probable that more than a single species may be involved in this complex and that the specimens with extra cross-veins in the wings may represent valid species. More material will be needed before this can be decided.

Limnophila subjucunda, sp. n.

Belongs to the *jucunda* group; antennæ short; præscutal stripes indicated behind; wings with a creamy ground-colour, heavily patterned with brown, this including a large area in cell *M* before mid-length and conspicuous marginal spots at the ends of the longitudinal veins.

Male.—Length about 6 mm.; wing 7·2–7·3 mm.

Rostrum and palpi brown. Antennæ short, if bent backward not surpassing the pronotum; dark brown, the scapal segments weakly pruinose; flagellar segments oval with verticils that exceed the segments. Head grey with a yellowish pollen, most conspicuous on the anterior vertex.

Pronotum dark brown, pruinose. Mesonotal præscutum yellowish grey with an intermediate pair of narrow dark brown stripes, most evident behind; lateral stripes faintly indicated; both pseudosutural foveæ and tuberculate pits evident, black; posterior sclerites of the mesonotum dark brown, heavily pruinose. Pleura brownish grey. Halteres yellow. Legs with the fore and middle coxæ brown, sparsely pruinose, the posterior coxæ obscure yellow; trochanters yellow; femora obscure yellow, the tips narrowly infuscated; tibiæ brownish yellow, the tips narrowly dark brown; basitarsi light brown, the tips and remainder of tarsi dark brown; segments of the legs with conspicuous semi-erect setæ. Wings with a creamy ground-colour, heavily spotted and clouded with brown; basal half of cell *C* clouded; the brown clouds are largely circular in outline, distributed as follows: bases of cells *R* and *M*; at two-fifths the length of cell *M*; at origin of *Rs*, not quite reaching vein *M*; tip of *Sc*₁ and *Sc*₂; stigma; cord and outer end of cell 1st *M*₂; fork of *M*₁₊₂; tips of all the longitudinal marginal veins except *R*₅, smallest on *M*₁, becoming larger posteriorly toward the wing-base; dusky washes in basal half of cell *Cu*, along vein 2nd *A*, and in the anal angle; veins brown. No macrotrichiæ in apical cells of wing. Venation: *Sc*₁ ending opposite three-fourths the length of *Rs*, *Sc*₂ at its tip; *R*₂ a little longer than *R*₁₊₂ and about one-third *R*₂₊₃; *R*₂₊₃₊₄ longer than *m-cu*; cell *M*₁ present, about equal to its petiole; *m-cu* near mid-length of cell 1st *M*₂; anterior arculus present. A weak spur from vein *M* into cell *M* near two-fifths the length of the vein.

Abdomen dark greyish brown, the hypopygium a little paler. Male hypopygium generally as in *L. jucunda*, sp. n., in the very short ædeagus, the long strongly curved inter-bases, and the spinulose outer dististyle.

Hab. Tasmania.

Holotype, ♂, Burnie, February 1, 1923 (*A. Tonnoir*).

Paratopotype, ♂.

Limnophila suspecta, sp. n.

Belongs to the *jucunda* group; general coloration brown, the præscutum with two intermediate darker stripes behind;

antennæ short; wings pale brownish yellow with very pale darker clouds along the cord and outer end of cell 1st M_2 ; no macrotrichia in cells of wing; cell M_1 present.

Male.—Length about 4.5 mm.; wing 5.3–5.5 mm.

Female.—Length about 5.5 mm.; wing 6.8 mm.

Rostrum and palpi dark brown. Antennæ short, if bent backward not extending far beyond the pronotum, dark brown, the basal segment a little paler; flagellar segments oval with verticils that are much longer than the segments. Head broad, brown, with a yellow pollen.

Pronotum dark brown, sparsely pollinose, the posterior notum paler. Mesonotal præscutum brown, with two intermediate darker brown stripes that are better indicated on the posterior half; both pseudosutural foveæ and tuberculate pits present, the latter placed at about mid-distance between the cephalic margin and the level of the foveæ; scutum dark grey; scutellum lighter grey; postnotum dark brown, sparsely pruinose. Pleura dark brown, sparsely pruinose; dorso-pleural region paler. Halteres of moderate length, yellow throughout. Legs with the coxæ brownish yellow, the fore and middle coxæ more infuscated; trochanters obscure yellow; femora yellowish brown, tibiae slightly darker, the tarsal segments passing into dark brown; segments of legs with long outspreading setæ. Wings with a pale brownish-yellow tinge, the prearcular region more whitish yellow; stigma oval, brown; broad, pale brown clouds along the cord and outer end of cell 1st M_2 ; anal angle slightly darkened; veins brown. No macrotrichia in cells of wing; those of the veins relatively sparse, virtually restricted to beyond the level of the cord. Venation: Sc_2 at extreme tip of Sc_1 , ending about opposite three-fourths the length of Rs , the latter angulated at origin; R_2 faint, subequal to R_{1+2} and varying from about one-half to nearly equal to R_{2+3} ; cell M_1 present but small, approximately one-third to one-half its petiole; $m-cu$ about its own length beyond the fork of M .

Abdomen dark brown, including the hypopygium; basal sternites a very little brighter. Male hypopygium generally as in *L. jucunda*, sp. n., dististyles very small, the inner style stout and nearly equal in length to the outer one. Interbasal processes very long and slender, acicular. Ovipositor with the valves very long and slender, light horn-colour, the bases narrowly darkened.

Hab. Tasmania.

Holotype, ♂, Burnie, October 26, 1922 (*A. Tonnoir*).

Allotopotype, ♀.

Paratopotypes, 2 ♂ ♂.

Limnophila suspecta differs from *L. jucunda*, sp. n., in the diffusely patterned wings and the details of venation.

Limnophila suspecta invariegata, subsp. n.

Close to typical *suspecta*, but without dark markings on the wing other than the oval stigma. Wings broader, the cells being somewhat wider.

Hab. Tasmania.

Holotype, ♂, Cradle Valley, January 16, 1923 (*A. Tonnoir*).

Allotype, ♀, Mt. Field, December 18, 1922 (*A. Tonnoir*).

Limnophila tigriventris, sp. n.

Belongs to the *jucunda* group; general coloration dark brown, including the pleura; femora brownish yellow, the tips clearer yellow; wings with a faint dusky tinge, the veins indistinctly seamed with darker brown; abdomen dark brown, the intermediate segments broadly margined caudally with yellowish.

Female.—Length about 6 mm.; wing 6.7 mm.

Rostrum and palpi dark brown. Antennæ of moderate length, if bent backward extending to shortly before the wing-root, dark brown throughout; flagellar segments elongate-oval with conspicuous verticils that are nearly twice the length of the segments. Head dark brown.

Mesonotum shiny dark brown, the præscutum darker medially, only sparsely dusted with yellowish pollen; pseudo-sutural foveæ present; tuberculate pits at mid-distance between foveæ and cephalic margin of præscutum. Pleura dark brown, very sparsely pollinose. Halteres yellow. Legs with the coxæ yellowish testaceous; trochanters brownish yellow; femora pale brownish yellow, the tips broadly clearer yellow; tibiæ yellowish brown, the tips narrowly infuscated; tarsi brownish testaceous, the terminal segments darker; segments of legs with long conspicuous setæ. Wings with a faint dusky tinge, the veins indistinctly seamed with darker; stigma oval, darker brown; dark seams at origin of *Rs*, along cord and outer end of cell 1st *M*₂, on veins *Cu*₁ and 2nd *A*; anal angle darkened; veins dark brown. No macrotrichiæ in cells of wing. Venation: *Sc*₁ ending shortly before the fork of *Rs*, *Sc*₂ about its own length from the tip; *Rs* strongly arcuated at origin; *R*₂ close to the tip of *R*₁₊₂ and a little shorter than *R*₂₊₃; *R*₂₊₃₊₄ nearly twice *m-cu*; cell *M*₁ longer than its petiole; cell 1st *M*₂ large,

equal in length to vein M_3 beyond it, gently widened outwardly; m straight, the outer deflection of M_3 a little longer, strongly arcuated; $m-cu$ nearly its own length beyond the fork of M .

Abdomen dark brown, segments 2 to 5 with broad conspicuous yellow rings on the caudal margins, producing a banded appearance. Ovipositor with the tergal valves pale horn-colour, gently upcurved to the acute tips; sternal valves blackened at base.

Hab. Tasmania.

Holotype, ♀, Strahan, February 1924 (*G. H. Hardy*), in the University of Queensland Collection.

Limnophila lepida, sp. n.

Belongs to the *ocellata* group; general coloration light brown; antennæ short; pleura grey pruinose; wings with a brownish-yellow tinge, variegated with a sparse solid brown pattern that is confined to the vicinity of the veins; Sc_1 shorter than $m-cu$, the latter beyond mid-length of cell 1st M_2 .

Male.—Length 3.5 mm.; wing 4.5 mm.

Rostrum and palpi brown. Antennæ short, if bent backward extending slightly beyond the pronotum, dark brown; flagellar segments cylindrical, slightly dilated near mid-length and here with elongate verticils which are about one-half longer than the segments. Head brownish grey.

Mesonotal præscutum light greyish brown with three indistinct darker brown stripes, the lateral margins of the segment slightly pruinose; pseudosutural foveæ and tuberculate pits both conspicuous, black, in approximate transverse alignment, the tuberculate pits lying very far back on the præscutum; scutum brown, sparsely pruinose; scutellum and postnotum lighter grey. Pleura brown, sparsely grey pruinose, with two narrow, dusky, longitudinal stripes. Halteres pale yellow. Legs with the coxæ brownish testaceous; trochanters yellowish brown; remainder of legs pale brown, the terminal tarsal segments infuscated. Wings with a brownish-yellow tinge, the base and costal margin clearer yellow; a sparse pale brown pattern that is not at all ocelliform, consisting of simple circular or oval clouds distributed as follows: beyond arculus in bases of cells R and M ; origin of Rs ; tip of Sc ; along cord; on R_2 and fork of R_{2+3+4} ; outer end of cell 1st M_2 ; conspicuous marginal clouds at ends of longitudinal veins, excepting R_4 and R_5 ; a dusky cloud near mid-length of vein 1st A ; veins

brown, a little darker in the clouded areas. Venation: Sc_2 rather far out toward the tip of Sc_1 , the latter alone about equal to m ; R_2 close to the tip of R_{1+2} and a little shorter than R_{2+3} ; cell M_1 present, about two-thirds its petiole; cell 1st M_2 elongate, widened distally, $m-cu$ beyond mid-length. Wing widest immediately basad of the apex of the long vein 2nd A .

Abdomen dark brown, the subterminal segments somewhat darker; hypopygium obscure yellow. Male hypopygium with the basistyles long and slender, without a distinct interbasal process. Dististyles two, the outer slender, blackened, clavate, the apex truncated, with the outer apical angle microscopically spinulose; outer margin of style on distal half with a few long setæ. Inner dististyle a little shorter and much stouter, pale, with setæ. Gonapophyses small flattened blades, each terminating in an elongate beak. \AA edeagus very short and stout.

Hab. New South Wales.

Holotype, ♂, Narara, November 3, 1921 (*A. Tonnoir*).

Paratopotypes, 2 ♂♂.

Limnophila lepida is closely related to *L. ocellata*, Skuse, and with this latter species constitutes a distinct group of the genus that is characterized by the presence and position of the tuberculate pits which are placed far back on the præscutum, in transverse alignment with the pseudosutural foveæ. The present species is readily told by the sparse non-ocellate wing-pattern.

Limnophila subtristis, sp. n.

General coloration brown; antennæ short; legs dark brown to black, the femoral bases narrowly paler; wings with a strong brown suffusion, the stigma darker; no macrotrichiæ in cells of wings; Sc_2 at tip of Sc_1 ; cell M_1 lacking; male hypopygium with the outer dististyle extended into a simple slender chitinized point.

Male.—Length about 4.5 mm.; wing 6.2 mm.

Rostrum and palpi brownish black. Antennæ short, if bent backward not extending beyond the pronotum, black throughout; basal flagellar segments subcylindrical to oval, crowded, the outer segments more elongate, with verticils that are longer than the segments. Head light grey, the centre of the vertex somewhat darker.

Pronotum pruinose. Mesonotal præscutum brown, with-out stripes, the surface very sparsely pruinose, especially laterally; tuberculate pits lacking; scutellum and postnotum

more pruinose. Pleura dark, grey pruinose. Halteres pale, the knobs weakly infuscated. Legs with the coxæ and trochanters brownish testaceous; femora dark brown, the bases paler; tibiæ and tarsi black. Wings with a strong brown suffusion, the oval stigma darker brown; veins darker brown. No macrotrichia in cells of wing. Venation: Sc_1 ending shortly before the fork of the long Rs , Sc_2 at its tip; Rs angulated at origin; R_2 subequal to R_{1+2} and more than twice R_{2+3} ; R_{2+3+4} shorter than $m-cu$; cell M_1 lacking; $m-cu$ before or close to mid-length of cell 1st M_2 ; veins beyond the cord elongate; anterior arculus present.

Abdomen dark brown, the ninth segment more yellow, the styli weakly infuscated. Male hypopygium with the basistyles relatively long and slender, strongly setiferous. Outer dististyle elongate, near mid-length somewhat dilated and provided with long conspicuous setæ, thence prolonged into a slender, curved, simple apex, the extreme tip decurved. Inner dististyle fleshy, setiferous to apex. Gonapophyses with a comb of about nine chitinized teeth or spines. \AA edeagus short or of moderate length only. Ninth tergite with a U-shaped notch, the margins with microscopic setulæ, the lobes thus formed obtuse.

Hab. New South Wales.

Holotype, ♂, Narara, November 3, 1921 (*A. Tonnoir*).

Paratopotypes, 2 ♂♂.

Limnophila subtristis is allied to *L. levidensis*, Skuse, and *L. luctuosa*, Skuse, differing in the coloration and the position of Sc_2 .

Limnophila intonsa, sp. n.

General coloration grey, the præscutum with three brown stripes; antennæ short; wings with a yellow tinge, spotted with brown, the apices of cells R_4 and R_5 largely clear; R_2 about one-half R_{1+2} ; male hypopygium with the outer dististyle strongly swollen near mid-length, the outer face set with long wavy setæ.

Male.—Length 6.6–6.3 mm.; wing 6.6–7.5 mm.

Female.—Length 7–8 mm.; wing 7.3–8 mm.

Rostrum and palpi dark brown. Antennæ short, if bent backward not extending beyond the pronotum; basal segments light brown, the flagellum dark brown, the verticils longer than the segments. Head yellowish grey, the anterior vertex broad, more silvery, with a brown spot at the narrowest point.

Pronotum yellowish brown. Mesonotal præscutum grey to yellowish grey with three darker stripes; pseudosutural foveæ shiny black, conspicuous; no tuberculate pits; scutum yellowish brown, the centres of the lobes darker brown; scutellum and postnotum with a yellowish-grey pollen. Pleura dark brown, pruinose; some specimens with a paler longitudinal stripe on dorsal region of sternopleurite. Halteres pale, the knobs more yellowish. Legs with the coxæ obscure yellow, the middle coxæ sparsely pruinose; trochanters obscure yellow; femora obscure yellow, the tips narrowly infuscated; tibiæ obscure yellow, the tips narrowly infuscated; tarsi brownish black, the proximal ends of the basitarsi sometimes paler. Wings with a yellow tinge, cells *C* and *Sc* faintly infuscated except at tips; a handsome dark brown pattern, distributed as follows: postarcular in bases of cells *R* and *M*; at origin of *Rs*; a small spot near two-thirds the length of *Rs*; stigma oval, dark brown, connected with a seam on the anterior cord; a large spot in outer end of cell *R*₃; a seam at fork of *M*₁₊₂, this more or less expanded over the surrounding veins; seams at outer end of cell 1st *M*₂, the posterior cord, the outer section of *Cu*₁, and tip of vein 2nd *A*; anal margin of wing slightly darkened; veins brownish yellow, darker in the infuscated areas. No macrotrichiæ in cells of wing. Venation: *Sc*₂ at extreme tip of *Sc*₁, the latter ending opposite or beyond the fork of *Rs*, the latter elongate, strongly arcuated at origin; *R*₂ about one-half *R*₁₊₂, and a little more than one-half *R*₂₊₃; cell *M*₁ about one-half its petiole; *m-cu* its own length or more beyond the fork of *M*; anterior arculus present.

Abdomen dark brown, sparsely pruinose; hypopygium dark. Male hypopygium with the basistyles relatively stout. Outer dististyle chitinized, the outer margin near mid-length extensively and strongly tumid and here set with abundant tubercles that bear very long wavy setæ; inner dististyle shorter, pale basally, with conspicuous setæ, the apical third narrowed, infuscated, the apex with a strong seta and smaller setiferous punctures. Gonapophyses with three curved hooks directed mesad. Ædeagus short. Ovipositor with the valves long and slender, acute, the tergal valves horn-coloured, gently upcurved; sternal valves nearly straight, black; dorsal basal shield infuscated.

Hab. Tasmania.

Holotype, ♂, Burnie, October 26, 1922 (*A. Tonnoir*).

Allotype, ♀, Wilmot, January 8, 1923 (*A. Tonnoir*).

Paratopotype, ♂, February 1, 1923; *paratypes*, ♀, Geestou, December 7, 1922; ♀, St. Patrick River, October 30, 1922; ♂, with the allotype; ♀, Strahan, February 1924 (*G. H. Hardy*), in the University of Queensland Collection.

Limnophila serena, sp. n.

General coloration grey; antennæ short; halteres pale, the knobs yellowish; legs yellow, the terminal segments darkened; wings whitish subhyaline with a heavy brown pattern, the apex solidly darkened; both Sc_1 and Sc_2 beyond the fork of R_s ; R_2 a little more than one-half R_{1+2} ; cell M_1 present; male hypopygium with the outer dististyle clavate, the apex a simple spine, the style provided with relatively short setæ.

Male.—Length 7.5–9 mm.; wing 8–9.8 mm.

Female.—Length 10.5 mm.; wing 10 mm.

Rostrum and palpi dark brown, the former sparsely pruinose. Antennæ relatively short, if bent backward extending to about mid-distance between the pronotum and wing-root, brown, the terminal segments passing into dark brown; flagellar segments gradually decreasing in size to the apex, the verticils a trifle longer than the segments. Head brownish grey, the anterior vertex light grey, the centre with a dusky spot.

Pronotum dark grey. Mesonotal præscutum dark grey with a median brown vitta; tuberculate pits lacking; pseudo-sutural foveæ black; scutum and scutellum dark grey with a narrow brown median line; postnotum grey. Pleura grey, the dorso-pleural region buffy brown. Halteres pale, the knobs yellowish. Legs with the coxæ brownish yellow, the bases a little darker; trochanters yellow; femora and tibiæ yellow; three basal tarsal segments brownish yellow, the tips narrowly blackened; terminal tarsal segments black. Wings whitish subhyaline; cells C and Sc brownish yellow, both ends clearer; a heavy brown pattern distributed as follows:—postarcular in cells R , M , and Cu ; origin of R_s , this not attaining vein M ; stigmal blotch slightly darker brown, oval, connected with a continuous brown seam along the cord to the anal margin; outer end of cell 1st M_2 seamed with brown; wing-apex broadly infumed, this including the outer ends of cells R_2 , R_3 , R_4 , R_5 , 2nd M_2 , and M_3 , and all of cell M_1 ; a spot at end of vein 2nd A , opposite the origin of R_s ; a tiny spot at end of vein M_4 ; veins pale yellow, darker in the infuscated areas. No macrotrichia in cells of wing. Venation: Sc_2 at tip of Sc_1 , both ending

shortly beyond the fork of R_s ; R_s long, strongly arcuated at origin; R_2 oblique, a little more than one-half R_{1+2} and subequal to R_{2+3} ; R_{2+3+4} a little shorter than $m-cu$; cell M_1 a little more than one-half its petiole; cell 1st M_2 small, m longer than the outer deflection of M_3 ; $m-cu$ less than its length beyond the fork of M ; anterior arculus present.

Abdomen dark brown, the basal sternites paler; hypopygium brownish yellow. Male hypopygium with the basistyles relatively stout, the outer face with conspicuous scattered setæ, the mesal face with more abundant smaller erect setæ. Dististyles two, closely connected basally by membrane; outer dististyle longer, blackened, clavate, gently dilated outwardly, the extreme tip suddenly narrowed into an acute spine; style with numerous relatively short setæ. Inner dististyle shorter, broad and fleshy at base, the apex narrowed and feebly chitinized, terminating in one or two larger and several microscopic setæ. Gonapophyses a chitinized plate armed with about five hook-like spines that are directed mesad. Ædeagus relatively short. Ninth tergite with a very broad, gentle emargination, the lateral lobes formed obtuse.

In the female, the sternites are more extensively obscure yellow. Ovipositor with the valves long and slender, the tergal valves gently upcurved, the sternal valves more infuscated.

Hab. Tasmania.

Holotype, ♂, Mt. Wellington, December 2, 1922 (*A. Tonnoir*).

Allotopotype, ♀, January 1924 (*G. H. Hardy*), in the University of Queensland Collection.

Paratype, ♂, Burnie, January 31, 1923 (*A. Tonnoir*).

Limnophila casta, sp. n.

General coloration dark brown, the sides of the præscutum paler; legs with conspicuous suberect setæ; wings with a faint greyish tinge; veins R_{2+3+4} and the combined R_{2+3} and R_3 nearly equal in length, cell R_3 thus being short and widened at margin; cell M_1 present; male hypopygium with the outer margin at apex microscopically serrulate.

Male.—Length about 4.5 mm.; wing 6 mm.

Rostrum and palpi dark brown. Antennæ small, if bent backward not attaining the wing-root, dark brown throughout; flagellar segments cylindrical or truncated fusiform, becoming smaller outwardly. Head dark brown, sparsely pollinose.

Pronotum dark brown. Mesonotal præscutum restrictedly dark brown medially, the sides broadly paler brown, the humeral region yellowish brown; tuberculate pits shiny, elongate, placed at near mid-distance between the level of the pseudosutural foveæ and the cephalic margin of the præscutum; foveæ relatively small and elongate, dark reddish brown, placed transversely; scutum light brown; scutellum and postnotum darker brown. Pleura dark brown, the dorso-pleural membrane and the ventral portion of the sternopleurite more brownish yellow. Halteres elongate, pale, the knobs weakly infuscated. Legs with the coxæ and trochanters yellowish testaceous; femora and tibiæ pale brown, the terminal tarsal segments passing into darker; segments of legs elongate, with conspicuous suberect setæ; tibial spurs small but distinct; claws long and slender. Wings with a faint greyish tinge, the stigma barely evident; veins pale brown. No macrotrichia on veins of basal half of wing except on *R* where they extend slightly basad of the origin of *Rs*. Venation: *Sc* relatively short, *Sc*₁ ending shortly before the fork of *Rs*, *Sc*₂ not far from its tip; *Rs* long, arcuated at origin; *R*₂ subequal to *R*₁₊₂ and approximately twice as long as *R*₂₊₃ or a trifle less; *R*₂₊₃₊₄ elongate, subequal to or a little shorter than the combined *R*₂₊₃ and *R*₃, this latter series of veins one-half to two-thirds as long as *R*₄, the veins strongly divergent, cell *R*₃ at margin being nearly twice as wide as cell *R*₂; *r-m* long, arcuated; cell *M*₁ from one-third to two-thirds its petiole; cell 1st *M*₂ relatively small, widened outwardly; *m-cu* a little less than to fully its own length beyond the fork of *M*; anterior arculus present.

Abdomen dark brown, the hypopygium a trifle more reddish brown. Male hypopygium with the basistyles relatively stout, narrowed outwardly. Outer dististyle entirely chitinized and blackened, a straight rod, gently widened at apex, the outer apical angle produced into a short curved hook, the outer margin of style on distal third with microscopic appressed serrulations. Gonapophyses with the base enlarged, the caudal angle produced into a very long recurved spine that is nearly straight. Ædeagus short and broad.

Hab. Victoria.

Holotype, ♂, Millgrove, May 30, 1925 (*F. E. Wilson*).

Paratopotype, ♂.

Type in the collection of the National Museum, Victoria.

Limnophila morosa, sp. n.

Size small (wing, ♂, about 4.2 mm.); general coloration

brownish grey; antennæ short, the flagellar segments oval to cylindrical; wings tinged with brown, the stigma a little darker; Sc_1 long; R_{2+3+4} longer than $m-cu$; R_{2+3} a little more than one-half R_3 ; cell M_1 lacking; no macrotrichie in cells of wing.

Male.—Length about 3 mm.; wing 4-4.2 mm.

Rostrum and palpi brown. Antennæ brownish black throughout, short, if bent backward not reaching the wing-root; basal flagellar segments oval, becoming cylindrical and finally elongate-cylindrical at tip; verticils a little shorter than the segments. Head broad, greyish brown.

Mesonotum brownish grey with a sparse yellow bloom; pseudosutural foveæ lying longitudinally with the axis of the body, comma-shaped, not far from the margin of the sclerite. Pleura light grey pruinose. Halteres pale. Legs with the coxæ elongate, light grey pruinose; trochanters brownish yellow; remainder of legs dark brown, the femoral bases narrowly paler, the tarsi still darker. Wings with a strong brownish tinge, the stigma subcircular, only a trifle darker than the ground-colour and very ill-defined; veins darker brown. Venation: Sc_1 ending shortly beyond the fork of Rs , Sc_2 some distance from its tip, Sc_1 alone being longer than $m-cu$; Rs in alignment with R_{2+3+4} , the latter longer than $m-cu$; veins R_3 and R_4 relatively short, divergent; R_4 in alignment with R_{2+3+4} ; R_2 subequal to R_{1+2} ; R_{2+3} a little more than one-half R_3 ; inner ends of cells R_4 , R_5 , and 1st M_2 in transverse alignment; cell M_1 lacking; cell 1st M_2 long and narrow; normally the three veins issuing from the cell are equidistant at origin, but in the paratype M_{1+2} and M_3 are approximated or even united for a short distance at base—in this case, the outer deflection of M_3 thus including the whole outer end of the cell; $m-cu$ shortly before to beyond mid-length of cell 1st M_2 .

Abdomen dark greyish brown, the hypopygium slightly more brownish. Male hypopygium with the basistyles simple, relatively stout. Dististyles two, terminal in position, the outer relatively short, stout, blackened, narrowed to the bifid apex; outer tooth a little more slender than the inner or apical tooth; surface of style with conspicuous erect setæ. Inner dististyle a little shorter, narrowed gradually to the obtuse apex; a little more than the basal half with conspicuous setæ, these mostly short or of moderate length; subapical portion nearly glabrous, the apex with numerous microscopic setulæ. Gonapophyses appearing as strongly curved hooks, in slide-preparations with the long

apex directed laterad and cephalad, the apex longer than the enlarged basal portion. *Ædeagus* relatively short and stout.

Hab. Tasmania.

Holotype, ♂, Cradle Valley, January 10, 1923 (*A. Tonnoir*).

Paratopotype, ♂, January 27, 1923 (*A. Tonnoir*).

Gynoplistia (Paralimnophila) bicincta, sp. n.

General coloration grey, the *præscutum* with eight dark lines; antennæ 16-segmented, in the male with nine branched segments, the branches short; femora and tibiæ each with a pale ring; wing-pattern relatively heavy; hypopygium dark.

Male.—Length about 10–10·2 mm.; wing 10·2–10·5 mm.

Female.—Length about 12 mm.; wing 10·5 mm.

Rostrum dark brown, sparsely pruinose; palpi brownish black. Antennæ 16-segmented, the branches relatively short, the formula (♂) being 2+9+5; first flagellar segment with a branch that is nearly twice the segment; branches gradually increasing in length to the fourth and fifth flagellar segments where they are about two and one-half times the segment, thence gradually decreasing in length, the last branch shorter than the segment; unbranched terminal segments gradually decreasing in length to the last; basal segment of scape infuscated above, pruinose; second segment obscure brownish yellow; basal flagellar segment obscure yellowish brown; remaining segments and all branches black. Head grey, the centre darker, the anterior vertex paler.

Mesonotal *præscutum* grey with four darker greyish-brown stripes, the intermediate pair longest, narrow and confluent behind, separated from one another by a capillary vitta only; lateral stripes short; interspaces and a short sublateral stripe darker velvety-brown than the usual stripes, subequal in length to the lateral stripes, the *præscutum* thus appearing to have eight stripes; pseudosutural foveæ very large and conspicuous, circular, blackened; scutum dark grey, each lobe with two darker markings; scutellum and postnotum dark grey. Pleura light grey, the dorso-pleural membrane obscure yellow; sternopleurite and base of fore coxæ with a paler longitudinal area. Halteres yellow, the knobs dark brown. Legs with the coxæ grey, the fore coxæ small, brownish grey; trochanters obscure yellow; femora with the bases broadly yellow, narrowest on the fore legs, broadest (about the basal third) on the hind legs; remainder of

femora black with a narrow but conspicuous yellow ring about twice its length before the tip; tibiæ brownish black with an obscure yellow ring a little more than its own length beyond the base; tarsal segments light brown, the incisures darker, the terminal two segments uniformly dark brown. Wings whitish subhyaline, extensively spotted and washed with darker; cells *C* and *Sc* light brown; the dark brown spots include quadrate areas at one-third the length of cell *R*, origin of *Rs*; the oval stigma; seams on anterior cord; outer end of cell 1st *M*₂ and a spot at end of vein *R*₃; somewhat paler brown washes occupy the wing-apex, outer two-thirds of cell *M*, cell *M*₄, the cord, apices of cells 1st *A* and 2nd *A*, and bases of cells *Cu* and 2nd *A*; a circular pale droplet in the outer end of cell *R*₃; veins dark brown, paler in the hyaline areas. Venuation: *Sc*₁ ending about opposite the fork of *Rs*, *Sc*₂ some distance from its tip; veins *R*₃ and *R*₄ long, very gently divergent at base, more abruptly so towards their tips; cell *M*₁ about twice its petiole; *m-cu* about one-half or more of its length beyond the fork of *M*.

Abdomen dark brown, dark grey pruinose; hypopygium dark. Male hypopygium with the outer dististyle heavily blackened, broadly expanded at tip, the apex with a rounded notch to give a bilobed appearance to the end of the style, the outer arm being an acute black spine, the inner arm a stouter lobe that is obtuse at apex; inner dististyle broad and flattened.

The female is generally similar to the male; antennæ 16-segmented, with the basal flagellar segments only slightly produced on lower face beyond mid-length. Pseudosutural foveæ more reddish. Tibial band paler, more whitish, than the femoral ring.

Hab. Tasmania.

Holotype, ♂, Cradle Valley, January 12, 1923 (*A. Tonnoir*).

Allotype, ♀, Geeveston, December 8, 1922 (*A. Tonnoir*).

Paratopotypes, 2 ♂ ♂, January 10-12, 1923 (*A. Tonnoir*).

Gynoplistia (Paralimnophila) uncinata, sp. n.

General coloration grey, the præscutum with four dark brown stripes; antennæ (♂) more than one-half the length of the body, with long branches; tibiæ with an obscure yellow subbasal ring; wings creamy-white with a heavy brown pattern.

Male.—Length 12-13 mm.; wing 12-13 mm.; antennæ about 7-7.5 mm.

Rostrum grey pruinose, the apex tufted with a few long yellow setæ; palpi black. Antennæ 17-segmented, the formula being $2+14+1$ or $2+13+2$; elongate, with conspicuous branches, if bent backward extending to about one-third the length of the abdomen, black throughout; longest branches about three times the segments. Head dark, light grey pruinose.

Pronotum light grey pruinose. Mesonotal præscutum grey with four dark brown stripes, the narrow intermediate pair separated by a broad line of the ground-colour; extreme lateral margins of the notum at the suture darkened; posterior interspaces more or less suffused with darker; pseudosutural foveæ large, oval, light reddish to nearly black; scutum dark grey, each lobe with two dark markings; remainder of mesonotum grey. Pleura dark with a heavy light grey pruinosity, the ventral sternopleurite darker. Halteres yellow, the knobs brownish black. Legs with the coxæ brown, light grey pruinose; trochanters obscure yellow; femora brownish black, the basal fourth or fifth obscure yellow; tibiæ black with an obscure yellow subbasal ring placed about its own length or less beyond the base; the paratype has the rings much broader and more distinct, especially on the posterior legs; tarsi black, the posterior tarsi paler, their vestiture consisting of yellow setæ, the last segment black. Wings creamy-white with a very heavy brown pattern; base of wing light yellow, cells *C* and *Sc* light brown; the brown markings are arranged generally as four interrupted cross-bands, all but the last being connected by a broad longitudinal wash in cells *R* and *M*; the basal band includes the bases of cells *R* and *M* and the outer half of cell *2nd A*, broadly interrupted in cell *1st A*; the second band includes a circular or rectangular area at origin of *Rs* and the outer end of cell *1st A*, the band being nearly continuous by the wash in cells *M* and *Cu*, interrupted only as a slight line in cell *R*; a broad complete band at the cord, the oval stigma darker brown, this band including a pale spot before the stigma and a circular spot in cell *1st M*₂; the fourth band includes the wing-tip, except the apex of cell *R*₃, but including all of cell *M*₁; veins yellow, dark brown in the infuscated areas. Venation: *R*₂₊₃₊₄ very short; cell *R*₃ deep; veins *R*₃ and *R*₄ parallel except at their outer ends; cell *M*₁ deep; *m-cu* at mid-length of cell *1st M*₂.

Abdominal tergites dark brown, sparsely pruinose; sternites paler brown, each segment with three darker markings, the median stripe more nearly entire behind, light grey

pruinose; hypopygium reddish brown, the tergite darker medially, the caudal margin produced.

Hab. Tasmania.

Holotype, ♂, Hartz Mts., December 10, 1922 (*A. Tonnoir*).

Paratopotype, ♂; *paratype*, ♂, Mt. Wellington, November 25, 1922 (*A. Tonnoir*).

Gynoplistia (Paralimmophila) decincta, sp. n.

Antennæ 16-segmented, the male with nine branched segments, the branches relatively short and inconspicuous; femora and tibiæ without pale annuli.

Male.—Length about 9.5 mm.; wing 9.5 mm.

Rostrum grey; palpi black. Antennæ 16-segmented, the formula being 2+9+5; branches relatively short and inconspicuous, the longest (flagellar segments 4 and 5) scarcely twice as long as the segment; antennæ short, if bent backward not attaining the wing-root, black throughout, the basal segment weakly pruinose. Head dark grey, the anterior vertex and the orbits lighter grey.

Pronotum grey. Mesonotal præscutum light grey, the posterior half more suffused with light brown, the three usual stripes dark brown, the median stripe divided by a paler brown line; scutum light grey, the lobes largely brown; scutellum and postnotum dark, light grey pruinose. Pleura dark, heavily grey pruinose; dorso-pleural membrane restrictedly obscure yellow. Halteres yellow, the knobs dark brown. Legs with the coxæ dark, grey pruinose; trochanters obscure brownish yellow, the posterior trochanters slightly pruinose; femora black with about the basal fourth obscure yellow; tibiæ brown, the tips passing into brownish black; tarsi brownish black. Wings whitish subhyaline, spotted and longitudinally washed with darker; cell *C* brown; cell *Sc* largely yellow; stigma oval, darker brown; sparse brown markings at arculus; origin of *Rs*; along cord; ends of veins *R*₃ and *R*₄; the brown washes are paler but very extensive, including most of the posterior half of the wing except the basal two-thirds of cell 1st *A*, the basal third of cell 2nd *A*, and almost the apical fourth of cell *Cu*; veins brown, more yellowish in the pale areas. Venation: *Rs* relatively short, angulated and weakly spurred at origin; cell *M*₁ deep, more than twice its petiole; *m-cu* about one-third its length beyond the fork of *M*.

Abdomen dark brown, the sternites more pruinose; hypopygium slightly more reddish brown. Male hypopygium

with the outer dististyle relatively small and slender, curved, the apical two-thirds blackened, the outer apical angle further produced into a chitinized point. Gonapophyses appearing as very slender, acicular, gently curved horns.

Hab. Tasmania.

Holotype, ♂, Zeehan, February 1924 (*G. H. Hardy*).

Paratopotype, ♂.

Type in the collection of the University of Queensland.

Gynoplistia (Paralimnophila) decincta breviramus, subsp. n.

Male.—Length about 10 mm. ; wing 10·5–10·6 mm.

Agreeing closely with the typical form, differing especially in antennal structure.

Antennæ only 15-segmented, the formula being 2+8+5; branch of the first flagellar segment a little longer than the segment; longest branches (flagellar segments 3 and 4) only about one-half longer than the segments that bear them; from this point outward the branches decrease in length, that of flagellar segment 7 being about two-thirds the length of the segment; that of flagellar segment 8 reduced to a stout subapical protuberance that is slightly variable in length. Wings with the brown pattern darker and more extensive, including a series of about seven brown spots in the radial field that are represented only by pale washes in the typical form. Venation: R_2 approximately twice R_{1+2} ; R_{2+3} about one-half R_3 alone; cell 1st M_2 larger, with *m-cu* close to its inner end; *m* much shorter than the outer deflection of M_3 .

Hab. Tasmania.

Holotype, ♂, Mt. Field, December 18, 1922 (*A. Tonnoir*).

Paratopotype, ♂.

Gynoplistia (Paralimnophila) setulicornis, sp. n.

General coloration grey, the præscutum with three brown stripes; antennæ 16-segmented, in the male with long slender branches, the entire flagellum with sparse coarse setæ; tarsi with central portions yellow; wings narrow, the costal region dark brown, the disk with a sparse brown pattern; male hypopygium with the outer lateral angle of the outer dististyle terminating in a curved hook.

Male.—Length about 10 mm. ; wing 8·2 mm. ; antenna about 4·5 mm.

Rostrum light grey; palpi dark brown. Antennæ with the scapal segments dusted with grey; flagellum black throughout; antennæ elongate, with long conspicuous branches, the

longest about three times as long as the segment ; antennæ 16-segmented, the formula being $2+12+2$; branch of the first segment a little less than twice the length of the segment ; last branch about two-thirds the segment ; segments and branches with long, sparse, relatively coarse setæ that are fully twice as long as the diameter of the branches. Head clear light grey, the centre of the vertex suffused with brown. Anterior vertex wide.

Pronotum light grey. Mesonotal præscutum light grey with three brown stripes, the median stripe narrowed behind and reaching the suture ; pseudosutural foveæ large, black ; scutal lobes grey, the centre of each brown ; scutellum and postnotum light grey, the median line of the former narrowly light brown. Pleura light grey, the propleura and anepisternum somewhat darker. Halteres pale, the knobs infuscated. Legs with the coxæ pale brown, their inner faces yellow, the outer surface sparsely pruinose ; trochanters obscure yellow ; femora black, only the narrow bases obscure yellow, more broadly so on the fore femora where about the basal fourth is included ; tibiæ black ; basitarsi black, the tips narrowly yellowish ; tarsal segments 2 and 3 and the base of segment 4 obscure yellow ; remainder of tarsi black. Wings narrow, whitish subhyaline ; cells *C* and *Sc* dark brown ; stigma oval, dark brown ; very small brown spots at origin of *Rs*, beyond mid-length of the distance between arculus and origin of *Rs* on *R*, tip of R_{1+2} ; very narrow seams along cord, outer end of cell 1st M_2 , fork of M_{1+2} , and at the margins ; veins dark brown. Venation : *Rs* angulated and spurred at origin ; R_{2+3} approximately equal to R_{1+2} ; *m* short.

Abdominal tergites dark brown, sparsely pruinose ; sternites obscure yellow, darker outwardly ; hypopygium black. Male hypopygium with the tergal region relatively broad, the apex truncated. Basistyles relatively stout, the setæ sparse. Outer dististyle blackened, a gently curved flattened blade, slightly dilated at apex, the outer apical angle a short curved hook, the inner apical angle evenly rounded ; surface of style smooth. Inner dististyle approximately equal in length, stout, the outer margin narrowly chitinized, the base of the style with coarse setæ, the apex with smaller setulæ ; a basal raised portion densely set with a cushion of microscopic setulæ. Gonapophyses appearing roughly lyriform, each a flattened blade that is narrowed to the acute tip, the outer margin densely fringed with setæ, the inner margin smooth.

Hab. New South Wales.

Holotype, ♂, Mt. Kosciusco, November 24, 1921 (*R. J. Tillyard*).

The present species is allied to *G. (P.) punctipennis*, Westwood, differing, among other characters, in the coloration of the legs.

Gynoplistia (Paralimnophila) incompta, sp. n.

General coloration grey, the præscutum with seven brown stripes; a continuous brown median line from the scutum to the postnotum; wings with a strong brownish-yellow tinge, the dark pattern very sparse; veins R_3 and R_4 strongly divergent, cell R_3 at margin very wide; $m-cu$ at or shortly before the fork of M .

Male.—Length about 7 mm.; wing 8.8 mm.

Rostrum and palpi brownish black, the former somewhat shiny. Antennæ with the basal segment dark, dusted with grey; second segment brown; flagellum broken. Head grey; centre of the vertex with a longitudinal dusky line.

Pronotum dark, sparsely pruinose. Mesonotal præscutum grey, with three brown stripes, the median stripe strongly narrowed behind, the interspaces with a slightly paler brown vitta, the sublateral regions of the præscutum behind the pseudosutural foveæ similarly darkened, the whole giving to the præscutum the appearance of having seven stripes which are alternately dark and paler brown; pseudosutural foveæ oval, blackened; scutum dark grey, each lobe with a linear oblique line that is a caudal prolongation of the lateral præscutal stripes; median line of scutum with a capillary dark brown vitta that extends caudad across the scutellum and postnotum; scutellum and postnotum brown, heavily dusted with grey, the lateral margins of the mediotergite and the mesal half of the pleurotergite darker. Pleura grey, the sternopleurite variegated with pale brown; dorso-pleural membrane dark. Halteres brown, the base of the stem narrowly obscure yellow. Legs with the fore coxæ dark, the other coxæ more reddish brown, sparsely dusted with grey; trochanters obscure brownish yellow; femora obscure yellow, the apices passing into pale brown; tibiæ obscure yellow, the tips narrowly infuscated; basal tarsal segments brownish testaceous, the tips of the segments narrowly darkened; terminal tarsal segments entirely darkened. Wings with a strong brownish-yellow tinge, the base and costal region somewhat darker; stigma oval, darker brown; very vague and barely indicated clouds at origin of R_s , along cord and outer end of cell 1st M_2 , and fork of M_{1+2} ; veins brown. Venation: Sc relatively short, Sc_1 ending shortly

before the end of *Rs*, *Sc*₂ close to its tip; *Rs* elongate, angulated at origin; *R*₂₊₃₊₄ short and straight; *R*₂ one-half or less *R*₁₊₂ and about one-half *R*₂₊₃; veins *R*₃ and *R*₄ diverging, cell *R*₃ at margin being very wide; basal section of *R*₅ arcuated; cell *M*₁ more than twice its petiole; cell 1st *M*₂ rectangular, slightly widened outwardly; *m-cu* at or shortly before the fork of *M*; anterior arculus present.

Abdomen dark brown. Male hypopygium with the outer dististyle much as in *G. (P.) setulicornis*, sp. n., the apex dilated, the outer apical angle produced into an acute spine, the inner apical angle evenly rounded.

Hab. New South Wales.

Holotype, ♂, Sydney, September 21, 1921 (*G. H. Hardy*).

Type preserved in the collection of the writer.

Despite the lack of antennæ and the general appearance, which is very much like a *Limnophila*, I believe the present species to be correctly placed as above, because of the venation, notably the shortness of *Sc* and the position of *m-cu*, and the structure of the male hypopygium.

XX.—*Fulgorides* nouveaux provenant de la Collection du British Museum. Par le Dr. V. LALLEMAND.

[Sous-famille *FULGORINÆ*.

Tribu *APHANABINI*.

NOVODICTYA, gen. nov.

Front irrégulier, à larges fossettes, une sous la carène transversale, une de chaque côté, près du bord; sur la partie médiane, sous la fossette supérieure, le front se bombe légèrement en un talu longitudinal bordé de chaque côté par un assez large sillon. Surface du vertex fort concave, à bords saillants; lobe latéral portant les yeux, relativement assez gros. Tronc commun des deux nervures du clavus, au lieu de se prolonger en arrière, se terminant dans le bord interne; partie apicale réticulée du corium remontant à peu près jusqu'au milieu de l'élytre. Trois épines sur les tibias postérieurs. Rostre s'étendant entre les hanches postérieures. Voisin des genres *Pseudodictya* et *Ruhlella*, Schmidt, par la surface du front non unie, s'en distingue aisément par le tronc commun des deux nervures du clavus se terminant dans le bord interne.

Type du genre, *N. punctata*, Lallemand.

(1) *Novodictya punctata*, sp. n.

Tête, pronotum d'un jaune très légèrement brunâtre, brillants;