

*New or little-known Tipulidæ (Diptera).—XXXIX. Australasian Species.* By CHARLES P. ALEXANDER, Ph.D., F.E.S., Massachusetts Agricultural College, Amherst, Massachusetts, U.S.A.

THE species discussed in the present instalment are almost entirely members of the tribe Limoniini that were collected in Tasmania and south-eastern Australia by Dr. A. L. Tonnoir. A few additional specimens were secured by Mr. G. H. Hardy, to whom the material has been returned for inclusion in the collection of the University of Queensland. The Tonnoir series has been returned to Dr. Tonnoir. I extend my deepest thanks to Messrs. Hardy and Tonnoir for the privilege of examining this valuable series of crane-flies.

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

*Limonia perpulchra*, sp. n.

General coloration velvety-black; anterior vertex broad, silvery; mesonotal præscutum black with four pale reddish-brown stripes; femora yellow with a black subterminal ring; wings pinkish brown with a heavy dark brown

pattern; abdomen dark brown, the intermediate sternites conspicuously ringed caudally with yellow.

*Male*.—Length 5.5–5.7 mm.; wing 6.8–7 mm.

*Female*.—Length 5.2–5.4 mm.; wing 6.3–6.5 mm.

Rostrum and palpi black, the former short. Antennæ with the basal segment of scape black, the remainder of the organ brown; basal flagellar segments globular, the segments passing through oval to elongate; verticils of the basal segments short, on the more distal segments becoming long and conspicuous. Anterior vertex conspicuously silvery; posterior vertex velvety-black, the occipital region somewhat paler; vertex between the eyes very broad in both sexes.

Pronotum velvety-black, somewhat more reddish brown medially. Mesonotal præscutum velvety-black with four pale reddish-brown stripes, the intermediate pair separated by a narrow shiny black vitta; humeri and lateral margins broadly velvety-black; scutal lobes reddish brown, the mesal margin of each narrowly blackened, the median area of the scutum pale; scutellum brown, the caudal margin broadly more reddish brown; postnotum reddish brown, the cephalic portion more or less blackened, more extensively so on the pleurotergite. Pleura brown with a velvety-black longitudinal stripe; dorso-pleural membrane ochreous. Halteres yellow, the knobs extensively infuscated, the extreme tips a trifle paler. Legs with the coxæ yellow, the bases infuscated, most extensively on the fore coxæ, where only the tips are pale; trochanters testaceous-yellow; femora brown, more yellow at base, with a broad black subterminal ring, the extreme apex conspicuously light yellow; tibiæ brownish black, the extreme base narrowly yellowish; tarsi black. Wings pale pinkish brown with a heavy dark brown pattern; extreme wing-base yellowish; cell *C* infuscated except at outer end; conspicuous brown spots distributed as follows: Prearcular cells; origin and fork of *Rs*, the latter confluent with a conspicuous seam along the cord and with the stigma; spots in bases of cells *R* and *M* near one-third of the length of cell *R*; tip of *Sc* and the stigma; a broad seam at outer end of cell 1st *M*<sub>2</sub>; brown washes near wing-apex and in cells *M*, *Cu*, and the Anal cells, in the latter instance following the veins; some specimens have narrow dusky washes in cells *R*<sub>1</sub> and outer end of *R*; veins brown, with extensive pale bullate areas. Venation: *Sc* long, *Sc*<sub>1</sub> extending to opposite one-half to nearly two-thirds the length of the long *Rs*, *Sc*<sub>2</sub> at its tip; *Rs* strongly arcuated to angulated at origin; *R*<sub>2</sub> transverse,

about two-thirds of the vein  $R_{1+2}$  beyond it, the latter portion curved strongly into costa; cell 1st  $M_2$  widened distally, equal to or longer than vein  $M_{1+2}$  beyond it; *m-cu* before fork of *M*.

Abdominal tergites dark brown, including the hypopygium; sternites conspicuously ringed caudally with yellow, this most evident on segments 2 to 6, the amount becoming less and finally obsolete on the distal segments; in some specimens the caudal margin of tergites 2 and 3 is vaguely brightened. Male hypopygium in structure almost as in *Dicranomyia*; basistyles much larger than the small ventral dististyles; spines of the rostral prolongation long, curved gently basad.

*Hab.* Tasmania.

*Holotype*, ♂, Mt. Farrel, February 8, 1923 (*A. Tonnoir*).

*Allotopotype*, ♀.

*Paratopotypes*, ♂ ♀; *paratype*, ♂, Strahan, February 1924 (*G. H. Hardy*).

*Dicranomyia subdorsalis*, sp. n.

General coloration reddish ochreous, the præscutum with three confluent brownish-black stripes; pleura dark brown with a transverse pale stripe beneath the wing-root; abdomen dark brown, the subterminal segments yellow; male hypopygium with the dorsal dististyle only slightly curved; ninth tergite with a group of about ten setæ on either side of the median line.

*Male*.—Length about 6.8 mm.; wing 7.8 mm.

*Female*.—Length about 7 mm.; wing 7.9 mm.

Rostrum about one-half the remainder of head, obscure yellow; palpi brownish black. Antennæ with the basal segment obscure brownish yellow; remainder of antennæ black; flagellar segments oval. Head brownish grey, the anterior vertex pale yellow; vertex at narrowest point a little wider than the first scapal segment.

Pronotum obscure yellow, brownish black medially. Mesonotal præscutum reddish ochreous, the dorsum with three confluent brownish-black stripes, restricting the ground-colour to the humeral angles and broad lateral margins; scutal lobes extensively brownish black, the median area pale; scutellum brownish testaceous, margined posteriorly with darker brown; postnotum with the mediotergite dark brown. Pleura obscure ochreous, the anterior pleurites dark brown, the pleurotergite likewise extensively infuscated, the ground-colour appearing as a transverse area

beneath the wing-root. Halteres pale, the knobs and distal two-thirds of the stem infuscated. Legs with the fore coxæ dark brown, the middle coxæ less infuscated, the hind coxæ yellow; trochanters obscure brownish yellow; remainder of legs dark brown, the femoral bases a little paler. Wings with a brownish tinge, the stigma conspicuous, oval, darker brown; cord, outer end of cell 1st  $M_2$ , and vein  $Cu_1$  indistinctly seamed with brown; veins dark brown. Venation:  $Sc_1$  ending opposite the origin of  $Rs$ ,  $Sc_2$  removed from its tip to a distance varying from two-thirds to longer than  $m-cu$ , the latter close to the fork of  $M$ ;  $R_2$  transverse, from two to three times  $Sc_2$  beyond it. In the types there are one or more adventitious cross-veins in cell  $Sc$  near outer end.

Abdomen dark brown, the eighth and ninth segments yellow; hypopygium dark. Male hypopygium with the basistyles relatively small, the mesal lobe large, provided with long setæ. Ventral dististyle large and fleshy, the rostral prolongation slender, curved; the two spines nearly equal, the innermost a trifle longer, nearly straight, placed at about one-third their length apart, the inner one at the base of the prolongation, the outer one about its own length from the tip of the same; a swollen lobe on face of dististyle near base of the rostrum, this provided with five or six large setæ. Dorsal dististyle only gently curved, the tip suddenly narrowed. Ninth tergite gently notched, each lobe with conspicuous setæ; a group of about ten setæ on either side of the median line. Ovipositor with the bases black, the valves black at base, passing into reddish-horn colour; tergal valves much shorter and smaller than the sternal valves, gently upcurved to the acute tips, the sternal valves long and straight.

*Hab.* Tasmania.

*Holotype*, ♂, Adventure Bay, December 30, 1922 (*A. Tonnoir*).

*Allotopotype*, ♀.

*Dicranomyia subdorsalis* differs from *D. dorsalis*, Skuse, in the details of structure of the male hypopygium.

*Dicranomyia albistigma*, sp. n.

General coloration black, grey pruinose; wings whitish, heavily clouded with brown, the stigma white;  $m-cu$  close to the fork of  $M$ ; male hypopygium with the ninth tergite deeply notched medially.

*Male*.—Length 8–8.5 mm.; wing 9–10 mm.

*Female*.—Length 8–9.2 mm.; wing 8.8–10.3 mm.

Rostrum nearly as long as head, black, pruinose; palpi black. Antennæ black throughout; flagellar segments short-oval with short verticils. Head light silvery grey in front, dark yellowish grey behind, this vaguely variegated with darker; anterior vertex relatively broad, fully twice the diameter of the first scapal segment.

Pronotum dark, sparsely pruinose. Mesonotum black, the surface sparsely grey to yellowish-grey pruinose, obscuring the shiny ground-colour; scutellum somewhat more heavily pruinose. Pleura heavily light grey pruinose. Halteres yellow, the knobs infuscated. Legs with the coxæ dark, sparsely pruinose, the extreme apices obscure yellow; remainder of legs black, the femoral bases obscure yellow, in some cases this colour including all but the tips. Wings with a whitish ground-colour, handsomely clouded with darker; wing-base more yellowish; wing-tip beyond the stigma and outer end of cell 1st  $M_2$  infuscated; cell  $R_1$  and the outer end of cell  $R$  before the stigma darkened, leaving the stigma white; narrow seams along the cord and vein  $Cu_1$ ; conspicuous triangular marginal clouds in the ends of cells  $Cu$ , 1st  $A$ , and 2nd  $A$ ; a dusky wash in cell  $C$  near the end; veins dark brown with bullate areas along the cord. Venation:  $Sc$  short,  $Sc_1$  ending opposite the origin of  $Rs$ ,  $Sc_2$  removed from its tip,  $Sc_1$  alone a little shorter than  $m-cu$ ;  $R_2$  subtransverse, about three times  $Sc_2$  beyond it;  $Rs$  arcuated, about one-half longer than the basal section of  $R_{4+5}$ ;  $m-cu$  at or beyond the fork of  $M$ .

Abdomen black, pruinose; hypopygium dark, only the ventral dististyles light yellow. Male hypopygium with the basistyles larger than the ventral dististyle, the mesal lobe large, with long setæ. Ventral dististyle relatively small, the mesal face produced into a long stout rostral prolongation; spines two, long, straight, directed strongly basad, nearly equal in length, one arising from a large basal enlargement, the other from a smaller papilla placed on the side of the enlargement, the spines thus appearing slightly unequal; setæ of the style conspicuous, erect, becoming smaller and appressed to the apex; spines placed about one-half their length from apex of the prolongation. Dorsal dististyle unusually stout, gently curved to the obliquely acute apex. Gonapophyses black, the mesal lobe stout, the apex obliquely truncated to feebly bilobed, the margin microscopically denticulate. Ninth tergite with the caudal

margin very deeply notched, the lateral lobes blackened and having an outline that is approximately the same as the median notch. Ovipositor with the valves reddish horn-colour, tergal valves slender, gently upcurved to the acute tips.

*Hab.* Tasmania.

*Holotype*, ♂, Mt. Wellington, November 30, 1922 (*A. Tonnoir*).

*Allotopotype*, ♀.

*Paratopotype*, ♀; *paratypes*, 1 ♀, Cradle Valley, January 11, 1923; 1 ♂, 1 ♀, Mt. Field, December 21, 1922; 1 ♂, 1 ♀, Hartz Mts., December 10, 1922 (*A. Tonnoir*).

*Dicranomyia albistigma* is most closely allied to *D. remota*, Skuse, differing in the diagnostic characters outlined above.

#### *Dicranomyia ochrirostris*, sp. n.

General coloration reddish, the præscutum with a broad brown stripe; rostrum ochreous; halteres yellow, the knobs infuscated; wings with a strong brownish-yellow tinge, the stigma slightly darker brown; abdominal segments unicolorous; male hypopygium with the spines of the rostrum longer than prolongation alone.

*Male*.—Length 7.5–8 mm.; wing 9.3–9.5 mm.

*Female*.—Length 9–9.5 mm.; wing 10–11 mm.

Rostrum light ochreous; palpi dark brown. Antennæ relatively short, black, the basal segment of the scape restrictedly ochreous; flagellar segments oval. Head ochreous to light fulvous in front, somewhat paler on the genæ; posterior vertex infuscated. Vertex between the eyes narrow, less than the diameter of the first scapal segment.

Pronotum dark brown medially, paler laterally. Mesonotal præscutum shiny reddish with a broad dark brown median stripe, the interspaces indistinctly pruinose, the lateral margins of the sclerite obscure yellow; in some specimens the lateral stripes are faintly indicated; scutum reddish yellow, each lobe extensively infuscated; scutellum and postnotum brownish ochreous, the latter dark brown behind. Pleura yellowish ochreous, the central sclerites sometimes weakly infuscated. Halteres relatively short, yellow, the knobs dark brown. Legs with the coxæ greenish yellow; trochanters yellow; femora yellowish brown, the tibiæ and tarsi gradually darkening, the tips of the latter almost black. Wings with a strong brownish-yellow tinge, the costal region somewhat clearer yellow, the wing-tip a

little darker; stigma oval, slightly darker brown; veins brown, more yellowish in the costal region. Venation:  $Sc_1$  ending opposite or shortly beyond the origin of  $R_s$ ,  $Sc_1$  a little shorter than  $m-cu$ ;  $R_2$  transverse, about one-half longer than  $Sc_2$  beyond it;  $m-cu$  at or beyond the fork of  $M$ .

Abdomen dark brown, the terminal segments and hypopygium obscure yellow; basal sternites more or less ochreous. Male hypopygium about as in *D. viridiventris*, Skuse; ventral dististyle very large, the rostral prolongation short, the two spines longer than the entire rostrum; spines straight, acute, the outer a trifle shorter than the inner, placed in a row, one being basal, the second inserted immediately beyond. Dorsal dististyle sickle-shaped, narrowed gradually to the long blackened apex. Mesal lobe of each gonapophysis strongly curved. Ninth tergite with a broad U-shaped notch, the lateral lobes with conspicuous setæ; a group of about five setæ on either side of the median line. Ovipositor with the valves relatively short, ending on a common level.

*Hab.* New South Wales, Tasmania.

*Holotype*, ♂, Cradle Valley, Tasmania, January 13, 1923 (*A. Tonnoir*).

*Allotype*, ♀, National Park, Tasmania, December 17, 1922 (*A. Tonnoir*).

*Paratopotypes*, 2 ♂♂, January 10–13, 1923; *paratypes*, 1 ♂, Wentworth Falls, Blue Mts., N.S.W., November 18, 1921; ♂, ♀, King River, Tasmania, February 4, 1923; 1 ♂, Hobart, Tasmania, November 8, 1922; 1 ♂, Mt. Wellington, Tasmania, November 27, 1922; 1 ♂, Fern Tree, Mt. Wellington, November 12, 1922 (*A. Tonnoir*).

*Dicranomyia ochrirostris* somewhat resembles *D. viridiventris*, Skuse, but is readily told by the large size and details of structure.

#### *Dicranomyia substricta*, sp. n.

General coloration light grey, the præscutum with three conspicuous brown stripes; antennæ black throughout; basal flagellar segments globular; halteres light yellow; wings milky with a sparse spotted and clouded darker pattern; male hypopygium with the spines of the rostral prolongation very long and slender, nearly straight.

*Male*.—Length about 5.5–5.8 mm.; wing 6.5–7 mm.

*Female*.—Length about 5.6 mm.; wing 6.5 mm.

Rostrum brown, the palpi a little darker. Antennæ dark brown throughout; flagellar segments globular, the outer

ones passing into short-oval, the verticils scarcely exceeding the segments in length. Head dark grey; vertex relatively narrow.

Pronotum dark above. Mesonotal præscutum light grey with three conspicuous brown stripes; pseudosutural foveæ represented by small circular black spots in the humeral region; scutum greyish, the lobes brown; scutellum light grey with a vague pale brown median stripe; postnotum dark brown, heavily light grey pruinose. Pleura dark brown, heavily light grey pruinose. Halteres of moderate length, light yellow; in the female slightly infuscated. Legs with the fore and middle coxæ dark, the posterior coxæ paler, grey pruinose; femora obscure yellow, the tips narrowly but faintly infuscated; tibiæ pale, the tips scarcely darkened; basitarsi elongate, more than twice as long as the remaining segments taken together, the basitarsi of the fore legs especially elongate. Wings with a pale milky tinge, sparsely clouded with darker; stigma oval, pale brown; a brown spot at tip of *Sc* and origin of *Rs*; cord and outer end of cell 1st *M*<sub>2</sub> seamed with greyish; vague dusky suffusions in the distal cells, in cells *R* and *M*, along vein *Cu*<sub>1</sub>, in the Anal cells, and in the Anal angle of the wing; veins dark brown with conspicuous bullate areas along the cord. Venation: *Sc*<sub>1</sub> ending shortly beyond the origin of *Rs*, *Sc*<sub>2</sub> a short distance back from the tip, *Sc*<sub>1</sub> alone about one-half longer than *R*<sub>2</sub>; *R*<sub>2</sub> subequal to vein *R*<sub>1+2</sub> and *Sc*<sub>2</sub> beyond it; *Rs* about two-thirds longer than the basal section of *R*<sub>4+5</sub>; *m-cu* oblique, shortly before the fork of *M*.

Abdomen dark brown, the sternites dark grey; hypopygium paler. Male hypopygium with the basistyles unusually elongate, the outer face much longer than the ventral dististyle, with relatively few setæ; ventro-mesal lobe relatively conspicuous. Ventral dististyle fleshy, the rostral prolongation stout; spines very long, straight, placed close to the apex of the rostrum, nearly equal in length but the outer one appearing longer because placed on a basal tubercle that is more than twice the length of the tubercle of the slightly more basal spine. Gonapophyses large, the mesal lobe long and slender, the apex slightly curved. Ædeagus with conspicuous darkened basal plates. Ninth tergite relatively short, broad, the caudal margin evenly convex or with a weak median notch, with only a few scattered marginal setæ. Ovipositor with the valves relatively long and straight, the tergal valves a little exceeding the sternal valves, reddish horn-colour, their bases narrowly blackened.

*Hab.* Tasmania.



*Holotype*, ♂, Adventure Bay, December 24, 1922  
(*A. Tonnoir*).

*Allotype*, ♀, Mt. Wellington, November 27, 1922.

*Paratype*, ♂, Eaglehawk Neck, Tasman Peninsula,  
November 16, 1922 (*A. Tonnoir*).

*Dicranomyia inculta*, sp. n.

General coloration grey, the præscutum with three brown stripes; femora light brown, the tips vaguely darker; wings tinged with grey with a sparse darker pattern;  $Sc_1$  ending a short distance beyond the origin of  $Rs$ ;  $m-cu$  a short distance before the fork of  $M$ ; abdomen dark brown; rostriform appendage of male hypopygium large, the two spines straight and of moderate length, basal in position; dorsal dististyle gently curved, the long tip acute.

*Male*.—Length about 6.2 mm.; wing 7.3 mm.

Rostrum short, dark brown. Antennæ broken. Head dark brownish grey, the anterior vertex reduced to a linear strip.

Pronotum dark brown. Mesonotal præscutum grey with a broad conspicuous median brown stripe, with short broad lateral stripes of the same colour; pseudosutural foveæ reduced to circular black pits that are very conspicuous against the grey background; scutum dark brown, the posterior lateral callosities light brown; scutellum and postnotum dark brown, sparsely pruinose. Pleura dark brown, heavily yellowish-grey pruinose. Halteres relatively long, pale, the base of the stem slightly infuscated. Legs with the coxæ and trochanters dark brown; femora light brown, the tips vaguely darker; tibiæ and tarsi darker brown. Wings with a greyish tinge, the stigma oval, a trifle darker; very indistinct pale brown spots at arculus, origin of  $Rs$  and tip of  $Sc$ , fork of  $Rs$ , the latter connected with the stigma and along the cord; veins dark brown. Venation:  $Sc_1$  ending a short distance beyond the origin of  $Rs$ ,  $Sc_2$  about mid-distance between the origin of  $Rs$  and the tip of  $Sc_1$ ;  $R_2$  subequal to vein  $R_{1+2}$  and  $Sc_2$  beyond it, the latter portion strongly incurved to the costa;  $Rs$  arcuated, about one-half longer than the basal section of  $R_{4+5}$ ; cell 1st  $M_2$  relatively long, rectangular, about as long as the outer section of  $M_3$ ;  $m-cu$  about one-half its length before the fork of  $M$ .

Abdominal segments dark brown; ventral dististyle of hypopygium paler. Male hypopygium with the mesal lobe of the basistyle relatively stout. Ventral dististyle relatively small, fleshy, the rostral prolongation very large, the two spines subequal in size, nearly basal in position, straight,

their tips acute ; apex of rostrum with a few small setæ, the entire surface with scattered microscopic setulæ. Dorsal dististyle elongate, only gently curved, the apex long, nearly straight. Gonapophyses with the lateral blades dusky, the mesal lobe paler with the tip narrowly obtuse. Ninth tergite broad, the caudal margin rounded.

*Hab.* Victoria.

*Holotype*, ♂, Ferntree Gully, Dandenong Range, October 25, 1921 (*A. Tonnoir*).

Allied to *Dicranomyia obscura*, Skuse.

*Dicranomyia wellingtonia*, sp. n.

Mesonotum shiny brownish black, the lateral margins paler ; antennæ black throughout ; anterior part of vertex silvery ; halteres elongate ; wings cuneiformly narrowed at base, conspicuously tinged with brown, the stigma not darker ; *Sc* short, *Sc*<sub>1</sub> long ; cell *2nd A* relatively narrow ; abdominal tergites uniformly dark brown ; rostral prolongation of male hypopygium with the spines very unequal in shape, widely separated from one another.

*Male*.—Length about 5–5.2 mm. ; wing 6–6.5 mm.

*Female*.—Length about 5.8 mm. ; wing 6.8 mm.

Rostrum very short, whitish ; palpi small, dark brown. Antennæ black throughout ; flagellar segments oval, with moderately long verticils. Anterior part of vertex silvery pruinose ; remainder of vertex dark brown, fading into obscure brownish yellow on the occiput ; vertex between the eyes broad.

Mesonotal præscutum with three dark brown to brownish-black shiny confluent stripes, the humeral regions and narrower lateral margins brownish yellow ; scutal lobes brownish black ; postnotum dark, the scutellum and median area of scutum paler. Pleura pale yellow testaceous. Halteres elongate (1.25 mm.), dark brown, only the extreme base slightly paler. Legs with the coxæ and trochanters greenish ; femora pale testaceous, soon passing into dark brown ; tibiæ and tarsi dark brown. Wings cuneiformly narrowed at base, conspicuously tinged with brown, the stigma concolorous but indicated by a delicate discoloured margin ; veins brownish black, the short macrotrichia concolorous. Venation : *Sc*<sub>1</sub> ending opposite or just beyond the origin of *Rs*, *Sc*<sub>2</sub> some distance from its tip, *Sc*<sub>1</sub> alone varying from about two-thirds to nearly as long as *Rs* ; *R*<sub>2</sub> about twice *Sc*<sub>2</sub> beyond it, both pale ; cell *1st M*<sub>2</sub> closed ; *m-cu* before or close to the fork of *M* ; cell *2nd A* relatively narrow.

Abdominal tergites uniformly dark brown; sternites pale; hypopygium dark. Male hypopygium with the ninth tergite broadly notched medially, the lateral lobes rounded, darkened, and provided with coarse setæ. Basistyles relatively large, the mesal face produced into two lobes, one larger than the other, both conspicuously setiferous. Ventral dististyle rather small, fleshy, the rostriform prolongation stout, broad-based, with two spines, the more basal being about three times as long as the small outer spine, the two separated from one another by a distance about equal to the length of the smaller spine; apex of rostrum with several spinous setæ. Dorsal dististyle a curved sickle-shaped rod that narrows gradually to the acute blackened point. Gonapophyses with the mesal lobe long, acute. Ædeagus of moderate length. Ovipositor with the tergal valves long and nearly straight, dark horn-colour.

*Hab.* Victoria, Tasmania.

*Holotype*, ♂, Mt. Wellington, Tasmania, November 25, 1922 (*A. Tonnoir*).

*Allotype*, ♀, Fern Tree, Mt. Wellington, November 10, 1922.

*Paratype*, 1 ♂, with the allotype; 1 ♂, Adventure Bay, Tasmania, December 25, 1922; 1 ♂, Sassafras, Dandenong Range, Victoria, October 19, 1922 (*A. Tonnoir*).

The present species and the next, *Dicranomyia æquispina*, sp. n., are allied to *D. cuneata*, Skuse.

*Dicranomyia æquispina*, sp. n.

*Male*.—Length about 5 mm.; wing 6.2 mm.

Closely related to *D. wellingtonia*, sp. n., in the silvery anterior vertex, elongate halteres, and other features, differing as follows:—

The silvery anterior vertex is bordered behind by a transverse black area, the remainder of the vertex and the occiput dark brown. Pronotum dark brown. Præscutum not blackened, shiny reddish, with faint greenish tints. Wings with  $Sc_1$  longer, about four-fifths of  $Rs$ ;  $m-cu$  at fork of  $M$ . Male hypopygium with the mesal face of the basistyle with two unequal fleshy lobes, as in *wellingtonia*. Rostral prolongation of the ventral dististyle with two slender spines, the more basal only a trifle longer and stouter than the distal spine, the two placed close together, the distance between them at base less than a quarter of the length of the shortest.

*Hab.* Tasmania.

*Holotype*, ♂, National Park, December 16, 1922 (*A. Tonnoir*).

*Dicranomyia flagellifer*, sp. n.

Rostrum and antennæ dark brown; mesonotum yellowish pollinose, the præscutum with three brown stripes; pleura dark brown, with longitudinal stripes of sparse yellow pollen; legs with the femora obscure brownish yellow, the tips narrowly darkened; wings with a pale brown tinge, heavily variegated with darker brown seams; *m-cu* more than its length before the fork of *M*; male hypopygium with the spines of the rostral prolongation very elongate and unequal in size.

*Male*.—Length about 7–7.5 mm.; wing 8.2–9.2 mm.

Rostrum short, dark brown; palpi brownish black. Antennæ relatively short, dark brown throughout; flagellar segments oval, the verticils rather short. Head dark brownish grey; anterior vertex clearer grey, reduced to a linear strip.

Pronotum dark brown. Mesonotal præscutum yellowish pollinose with a broad conspicuous dark brown median stripe, that is sometimes indistinctly split medially, and more abbreviated lateral stripes; median stripe expanded at cephalic margin of sclerite; lateral margins of præscutum more or less infuscated; pseudosutural foveæ inconspicuous; scutal lobes dark brown, the median area yellowish pollinose; scutellum and postnotum brown with a sparse yellowish-grey pollen. Pleura dark brown with two longitudinal stripes of sparse yellow pollen, giving a striped appearance. Halteres with the stem light yellow, the knobs weakly infuscated, the extreme apex pale. Legs with the coxæ brown, sparsely pollinose; trochanters brownish yellow; femora obscure brownish yellow, the tips narrowly and indistinctly darkened; tibiæ light brown, the tips narrowly darker; basal tarsal segments pale brown, their tips darker; terminal segments brownish black. Wings with a pale brown tinge, the surface extensively variegated with slightly darker brown seams; stigma long-oval, pale brown; an arcular dark spot; a small spot at tip of *Sc* and origin of *Rs*; broad seams at fork of *Rs*, along cord and outer end of cell 1st *M*<sub>2</sub>; wing-apex in the radial cells similarly darkened; a dusky cloud in cell *M* along vein *Cu*<sub>1</sub> and others in the Anal cells adjoining vein 2nd *A*; veins brown, paler in the costal area, with bullate areas along the cord and outer end of cell 1st *M*<sub>2</sub>. Venation: *Sc*<sub>1</sub> ending slightly beyond the origin of *Rs*, *Sc*<sub>2</sub> opposite or just beyond this origin; *R*<sub>2</sub> about twice *Sc*<sub>2</sub> beyond it; *Rs* about one-third longer than the basal section of *R*<sub>4+5</sub>, gently arcuated;

vein  $R_1 + Sc_2$  arched in the stigmal region; cell 1st  $M_2$  closed,  $m$  a little shorter than the outer deflection of  $M_3$ ;  $m-cu$  more than its own length before the fork of  $M$ .

Abdomen dark brown, the hypopygium brownish ochreous. Male hypopygium with the mesal lobe of the basistyle relatively large. Ventral dististyle fleshy, the mesal face produced into a stout rostral prolongation that bears two very conspicuous spines, the more basal about as long as the dorsal dististyle, the basal third swollen, the apex produced into a long gently curved spine that is directed basad; outer spine about one-half the length of the other, the base slightly enlarged, thence extended into a long acute spine. Dorsal dististyle large, rather strongly curved, the tip acute. Gonapophyses with the mesal lobe unusually slender, appearing as a blackened rod with the tip acute.

*Hab.* New South Wales, Tasmania.

*Holotype*, ♂, Fern Tree, Mt. Wellington, Tasmania, November 12, 1922 (*A. Tonnoir*).

*Paratype*, ♂, Mt. Wilson, Blue Mts., N.S.W., November 19, 1921 (*A. Tonnoir*).

*Geranomyia tonnoiri*, sp. n.

Præscutum dull reddish brown with three conspicuous dark brown stripes; pleura dark brown, the ventral pleurites more reddish brown, pruinose; knobs of halteres infuscated; femora brownish yellow; wings with a brownish tinge, the radial field whitish subhyaline, the pattern heavy; male hypopygium with the spines of the rostral prolongation long and slender, exceeding the entire rostrum.

*Male*.—Length (excluding rostrum) about 7.5 mm.; wing 8.2 mm.; rostrum 4.2 mm.

*Female*.—Length (excluding rostrum) about 8 mm.; wing 8.3 mm.; rostrum 4.3 mm.

Rostrum elongate, if bent backward extending to about one-third the length of the abdomen, black; palpi apparently three-segmented. Head dark grey, blackish adjoining the eyes, the anterior vertex clearer grey; anterior vertex narrow.

Pronotum dark greyish brown. Præscutum dull reddish brown with three conspicuous dark brown stripes, the median stripe broadened behind; median area of scutum narrowly infuscated, the stripe continued caudad on to the scutellum; scutal lobes extensively infuscated; scutellum brownish ochreous, variegated with brown, as above; postnotum dark brown. Pleura dorsally dark greyish brown, the sternopleurite and meron more reddish brown, pruinose.

Halteres pale, the knobs infuscated. Legs with the coxæ reddish ochreous, the fore coxæ more infuscated; trochanters obscure yellow; femora brownish yellow; tibiæ pale brown, gradually darkening beyond the base; tarsi passing into black. Wings with a brownish tinge, cell *C* and especially *Sc* more infuscated; cells *R*, *Sc*<sub>1</sub>, *R*<sub>1</sub>, *R*<sub>2</sub>, and bases of the Anal cells more whitish subhyaline; wing conspicuously variegated with brown markings and paler clouds; the brown areas include the anterior prearcular cells; a conspicuous quadrate area at origin of *Rs*, not reaching *M* or *C*; the oval stigma, slightly connected with a small spot at fork of *Rs*; narrow seams along cord and outer end of cell 1st *M*<sub>2</sub>; ends of cells *R*<sub>2</sub> and *R*<sub>3</sub> infumed; a broad brown seam along vein *Cu*<sub>1</sub> in cell *M*; veins dark brown, paler in the subhyaline areas; macrotrichia short, brownish black. Venation: *Sc*<sub>1</sub> ending opposite or before mid-length of *Rs*, *Sc*<sub>2</sub> about twice its length from tip; *R*<sub>2</sub> in virtual transverse alignment with the tip of *Sc*<sub>2</sub>, *R*<sub>1</sub> thus being barely preserved; *Rs* relatively short, square and spurred at origin; *m* shorter than the outer deflection of *M*<sub>3</sub>, straight; *m-cu* before the fork of *M*.

Abdomen dark brown above, basal sternites indistinctly bicolorous, the caudal half obscure dirty yellow, the bases dark. Male hypopygium with the mesal lobe of the basistyle relatively long, yellow, setiferous. Ventral dististyle large and fleshy, the rostral prolongation slender, the two spines placed near mid-length, long, slender, curved gently basad, nearly equal in length and longer than the entire rostrum; apex of rostrum with a few scattered setæ. Dorsal dististyle strongly curved, sickle-shaped, the apex suddenly narrowed to the acute tip. Gonapophyses with the mesal lobe relatively short and stout, broad, the apex narrowly darkened. Ædeagus with the subtending tubercles conspicuous, spinous or nearly so. Ovipositor with the valves horn-coloured, the tergal valves slender, nearly straight, the tips obtuse.

*Hab.* New South Wales.

*Holotype*, ♂, Wentworth Falls, Blue Mts., November 18, 1921 (*A. Tonnoir*).

*Allotopotype*, ♀.

This interesting *Geranomyia* is named in honour of the distinguished collector Dr. André L. Tonnoir. There is some question as to the exact number of palpal segments.

*Geranomyia (Triphana) hardyi*, sp. n.

General coloration reddish ochreous, the præscutum with brown stripes, the pleura dark; legs uniform in colour; wings tinged with yellow, with conspicuous brown marks and clouds; a supernumerary cross-vein in cell *Sc*; *m* long, arcuated, longer than the outer deflection of *M*<sub>3</sub>; abdomen dark brown; male hypopygium with the rostral prolongation small, the spines long and straight.

*Male*.—Length (excluding rostrum) about 6·5–7·5 mm.; wing 7·6–10 mm.; rostrum 2·5 mm.

*Female*.—Length (excluding rostrum) 8·5 mm.; wing 8·4–10·5 mm.; rostrum about 2·5 mm.

Rostrum black throughout, relatively short, as shown by the measurements; palpi 3-segmented, black. Antennæ black throughout; flagellar segments oval. Head dark, sparsely pruinose, the anterior vertex lighter grey, vertex reduced to a narrow strip.

Pronotum dark medially, the sides obscure yellow. Mesonotal præscutum light reddish ochreous, with a median stripe that is at least indicated anteriorly; in darker specimens with three præscutal stripes; scutal lobes infuscated to ochreous, the scutellum and a median area on the mediotergite darker. Propleura and the anterior portions of the sternopleurite and anepisternum dark brown; pleurotergite less strongly infuscated; remainder of the pleura ochreous. Halteres yellow, the knobs dark brown. Legs with the fore coxæ dark brown, the remaining coxæ and the trochanters yellow; femora obscure yellow, the tips not darkened; remainder of legs brownish yellow, the terminal tarsal segments passing into dark brown. Wings with a pale yellow tinge, the costal region clearer; disk with a conspicuous brown and grey pattern; a triangular to circular brown spot at origin of *Rs*, including cell *Sc* but scarcely reaching *M*; stigma oval, brown, connected with a brown cloud at the fork of *Rs*, the cord thence narrowly seamed with brown, broadened into a conspicuous cloud on *m-cu* and the distal section of *Cu*<sub>1</sub>; small brown clouds at the supernumerary cross-vein in cell *Sc*, *Sc*<sub>2</sub>, and at base of vein *M*; paler clouds in cell *C* above the origin of *Rs*; a large one in end of cell 1st *A* opposite the origin of *Rs*; anal region darkened; brown clouds at fork of *M*<sub>1+2</sub> and on the outer deflection of *M*<sub>3</sub>; wing-tip extensively darkened; very pale washes along vein *Cu*<sub>1</sub> in cell *M* and along the margin of cell 2nd *A*; veins pale, darker in the infuscated

areas. Venation:  $Sc$  long,  $Sc_1$  ending opposite two-thirds the length of  $Rs$ ,  $Sc_2$  not far from its tip;  $R_2$  a trifle longer than  $Sc_2$  beyond it;  $Rs$  angulated and spurred at origin; vein  $R_1 + Sc_2$  arched in the stigmal region; cell 1st  $M_2$  elongate;  $m$  longer than the outer deflection of  $M_3$ , arcuated;  $m-cu$  close to the fork of  $M$ , variable in position; a supernumerary cross-vein in cell  $Sc$  at near one-third the length.

Abdomen, including hypopygium, dark brown. Male hypopygium with the mesal lobe of the basistyle stout and of moderate length, with long setæ. Ventral dististyle large and fleshy, the rostral prolongation small, slender, more or less constricted at base forming a neck, the two spines placed close together just beyond the neck, long, straight, much longer than the rostrum beyond it; apex of rostrum with about four long setæ. Dorsal dististyle straight basally, the apex curved, the extreme tip acute. Gonapophyses with the mesal lobe elongate, the tip acute and gently curved, the lateral edge irregularly crenulate. Ædeagus with basal setæ; surface before apex with small tubercles. Ninth tergite narrow, the caudal margin with a small shallow median notch.

*Hab.* Tasmania.

*Holotype*, ♂, Mt. Wellington, November 27, 1922 (*A. Tonnoir*).

*Allotopotype*, ♀.

*Paratopotypes*, 1 ♂, 1 ♀, November 25 to December 2, 1922; *paratypes*, 1 ♂, Wilmot, January 8, 1923 (*A. Tonnoir*); 1 ♂, Adventure Bay, December 30, 1922; 1 ♂, Hartz Mts., December 10, 1922 (*A. Tonnoir*); 1 ♀, Hobart (*G. H. Hardy*), in the collection of Queensland University.

This interesting *Geranomyia* is named in honour of Mr. G. H. Hardy, to whom I am greatly indebted for many interesting crane-flies from Eastern Australia and Tasmania.

*Geranomyia (Triphana) tenebricosa*, sp. n.

General coloration brownish black, the posterior sclerites of the notum and the pleura pruinose; femora yellow, the tips conspicuously dark brown; wings yellowish grey with a sparse pale brown pattern; no supernumerary cross-vein in cell  $Sc$ ;  $Rs$  arcuated at origin; male hypopygium with the rostriform prolongation elongate, the spines short, sub-basal in position.

*Male*.—Length (excluding rostrum) about 8 mm.; wing 8.5 mm.; rostrum about 1.7 mm.



Rostrum unusually short, as shown by the measurements, about equal in length to the thorax alone, black throughout; palpi black. Antennæ with the basal segment very long, equal to the succeeding three taken together, black, the flagellum brownish black; flagellar segments elongate-oval, the terminal segment a trifle longer than the intermediate segments. Vertex between the eyes very narrow, head grey with a  $\uparrow$ -shaped black marking on the posterior vertex, the stem broader, the arms suborbital in position.

Pronotum shiny black above, paler laterally, the margins slightly pruinose. Mesonotum brownish black, sparsely pruinose; humeral region of the præscutum slightly paler; scutum and postnotum more heavily pruinose. Pleura brownish black, conspicuously pruinose. Halteres with the stem pale, the knobs strongly infuscated. Legs with the coxæ infuscated, pruinose; trochanters obscure yellow; femora obscure yellow, the base brighter, the tips broadly and conspicuously dark brown; tibiæ brownish yellow, the tips narrowly infuscated; tarsi light brown, the terminal segments passing into black. Wings with a pale yellowish-grey tinge, cell *Sc* somewhat darker; conspicuous pale brown clouds at origin of *Rs*, scarcely reaching *C* or *M*; a large circular spot at end of *Sc*; stigma oval, not connected with the spot at fork of *Rs*; cord and outer end of cell 1st *M*<sub>2</sub> conspicuously seamed, the former extending to the end of *m-cu*; pale clouds along vein *Cu*<sub>1</sub> in cell *M*; brown washes in the outer end of cell 1st *A* and in the anal angle of cell 2nd *A*; veins darker brown, those in the costal region paler, more infuscated in the clouded areas; macrotrichia short, dark brown. Venation: *Sc* long, *Sc*<sub>1</sub> ending about opposite two-thirds the length of *Rs*, *Sc*<sub>2</sub> not far from its tip; *R*<sub>1</sub> distinctly preserved, nearly as long as the free tip of *Sc*<sub>2</sub>, angularly bent into *R*<sub>2</sub>, the latter about twice the free tip of *Sc*<sub>2</sub>; *m* shorter than the outer deflection of *M*<sub>2</sub>, arcuated; *m-cu* before the fork of *M*.

Abdomen dark brown, the basal sternites paler. Male hypopygium with the mesal lobe of the basistyle short and very broad, with a smaller caudal lobule. Ventral dististyle large and fleshy, the rostral prolongation long, the spines nearly basal in position, small, straight, spicate, placed close together, slightly unequal, the apex of the rostrum beyond them about twice the length of a single spine, the apex produced into a small cone with several setæ on the face and distal third, the apical setæ larger. Dorsal dististyle rather strongly curved, the tip acute. Gonapophyses with the mesal lobe only moderately produced, the apex narrowly

blackened. *Ædeagus* setiferous at base, before the apex with numerous small tubercles.

*Hab.* Tasmania.

*Holotype*, ♂, Wilmot, January 8, 1923 (*A. Tonnoir*).

*Geranomyia (Triphana) victoriae*, sp. n.

General coloration reddish ochreous, the præscutum with a median brown stripe; fore coxæ yellowish ochreous, concolorous with the other coxæ; legs obscure yellow; wings tinged with yellow, with a conspicuous brown pattern that is not as extensive as in *G. (T.) hardyi*, sp. n.; no supernumerary cross-vein in cell *Sc*; male hypopygium with the rostral prolongation short, the spines straight.

*Male*.—Length (excluding rostrum) 6.8 mm.; wing 8.3 mm.; rostrum about 2 mm.

Rostrum brownish black, relatively short; palpi black. Antennæ black throughout; flagellar segments oval. Head with the anterior vertex narrowed to a mere strip; posterior vertex dark brownish grey with a series of about three velvety-black spots on the median line.

Pronotum dark brown medially, dark brown laterally. Mesonotal præscutum light reddish ochreous, the median area broadly infuscated, the stripe not reaching the suture; lateral stripes vaguely indicated; scutal lobes extensively infuscated, the median area and centre of the scutellum almost whitish; remainder of scutellum a little darker; postnotum reddish ochreous, darker behind. Pleura slightly infuscated. Halteres pale, the knobs weakly infuscated. Legs with the coxæ yellowish ochreous; trochanters yellow; femora obscure yellow, not darkened apically; tibiæ and tarsi brownish yellow, not darkened, the terminal tarsal segments passing into black. Wings tinged with yellow, conspicuously patterned with brown; small dark spots at base of cell *Sc* and origin of *Cu*<sub>1</sub>; a triangular area at origin of *Rs*, scarcely reaching *M*, much paler in cell *C*; a small spot on *Sc*<sub>2</sub>; stigma large, oval, connected with a circular cloud at the fork of *Rs*; cord and outer end of cell 1st *M*<sub>2</sub> narrowly seamed with brown, this is not continued beyond *m-cu*; a vague dusky clouding in the end of cell 1st *A* opposite the origin of *Rs*; wing-tip scarcely infuscated; veins pale, darker in the infuscated areas. Venation: *Sc* long, *Sc*<sub>1</sub> ending about opposite two-thirds the length of *Rs*, *Sc*<sub>2</sub> longer and at its tip; *R*<sub>2</sub> about one-half longer than the distal section of *Sc*<sub>2</sub>; *Rs* angulated and weakly spurred at origin, the distal section long and straight; *m* gently

arcuated, slightly longer than the outer deflection of  $M_3$ ;  $m-cu$  before or near the fork of  $M$ ; no supernumerary cross-vein in cell  $Sc$ .

Abdomen dark brown, the hypopygium reddish ochreous. Male hypopygium of the type of *G. hardyi*, sp. n.; rostral prolongation of the ventral basistyle short, the two spines short, straight, reddish brown, placed on elevated tubercles, the apex of the rostrum beyond the spines only slightly produced, the entire rostrum scarcely longer than the spines. Dorsal dististyle rather strongly curved beyond mid-length, the basal half straight, the apex suddenly narrowed into a slender spine. Gonapophyses with the mesal lobe blackened at tip, the lateral margin microscopically serrulate. Ninth tergite without apparent caudal notch.

*Hab.* Victoria.

*Holotype*, ♂, Sassafras, Dandenong Range, October 19, 1922 (*A. Tonnoir*).

*Paratopotype*, ♂, October 21, 1922 (*A. Tonnoir*).

*Geranomyia victoriæ* is readily told from *G. hardyi*, sp. n., by the lack of a supernumerary cross-vein in cell  $Sc$ , the more restricted wing-pattern, and differences in the structure of the male hypopygium.

#### *Rhipidia mutila*, sp. n.

Rostrum longer than the head; antennæ (♂) long-bipectinate; præscutum dark brown with three reddish-brown pollinose stripes; wings yellowish brown, the stigma full, dark brown; paler brown clouds along the cord, at fork of  $M_{1+2}$ , and as a seam along vein  $Cu_1$ ; cell 1st  $M_2$  open by the atrophy of the outer deflection of  $M_3$ ; cell 2nd  $M_2$  only a trifle longer than its petiole; abdominal segments bicolorous, their apices pale; male hypopygium with the rostral prolongation bispinous, the spines short, straight, separated at base, nearly equal in size; gonapophyses pale, the tips narrowly obtuse.

*Male*.—Length about 5.5 mm.; wing 6.8 mm.

Rostrum relatively elongate; longer than the remainder of the head, dark brown; palpi brownish black. Antennæ (♂) long-bipectinate, this including all the flagellar segments except the last; longest branches approximately three times as long as the segment, each tipped with a long seta; scape dark brown; flagellar segments except the last bicolorous, the basal half or more, together with the branches, dark brown, the glabrous apical pedicel pale; terminal segment simple, uniformly dark. Head black, heavily grey

pruinose, the median area more destitute of bloom; anterior vertex narrow.

Mesonotal præscutum dark brown, the usual stripes paler, more reddish brown, covered with a sparse pollen; scutum with the lobes brownish black, the centre of each lobe sparsely pruinose, the median area and the scutellum grey; postnotum black, grey pruinose. Pleura dark brown, grey pruinose, with a conspicuous dorsal glabrous stripe of the ground-colour, this ending beneath the level of the wing-base. Halteres pale yellow, the knobs a trifle darker. Legs with the coxæ dark, sparsely pruinose; trochanters brownish yellow; femora brown, the tips darker brown; tibiæ dark brown, the tips narrowly darker; tarsi passing into brownish black. Wings with a yellowish-brown tinge, variegated with brown; stigma oval, brown; rather broad and extensive pale brown clouds along the cord and at the fork of  $M_{1+2}$ ; a brown seam along  $Cu_1$ ; veins dark brown, the macrotrichia sparse, still darker brown. Venation:  $Sc$  of moderate length, extending to nearly opposite mid-length of the rather short and gently arcuated  $Rs$ ,  $Sc_2$  not far from the tip of  $Sc_1$ ;  $R_2$  nearly destitute of macrotrichia, pale; cell 1st  $M_2$  open by the atrophy of the outer deflection of  $M_3$ , cell 2nd  $M_2$  being only a trifle longer than its petiole;  $m-cu$  close to the fork of  $M$ .

Abdominal tergites conspicuously bicolorous, the base broadly dark brown, the caudal margins of the segments with a broad yellowish triangle that sends an anterior-median point cephalad; sternites even more extensively obscure yellow; hypopygium dark brown, the ventral dististyle paler. Male hypopygium with the mesal face of the basistyle produced caudad and mesad into a long oval lobe that is strongly darkened and provided with numerous long setæ. Ventral dististyle pale, fleshy, the rostral prolongation long, stout at base, the two spines pale and separated at base, the outer spine a trifle longer than the inner; rostrum before the spines with numerous setæ; apex of the rostrum beyond the spines provided with microscopic setæ. Dorsal dististyle a strong blackened rod, the tip suddenly narrowed and decurved. Gonapophyses with the tips pale and narrowly obtuse.

*Hab.* Tasmania.

*Holotype*, ♂, Strahan, February 5, 1923 (*A. Tonnoir*).

Cell 1st  $M_2$  is open in both wings of the unique type and the character must be presumed to be normal for the species. The fly is abundantly distinct from the species next to be described.

*Rhipidia pallidistigma*, sp. n.

*Male*.—Length about 6.5 mm. ; wing 8.2 mm.

*Female*.—Length about 8 mm. ; wing 10 mm.

Characters generally as in *R. mutila*, sp. n., differing as follows :—

Rostrum short, much shorter than the remainder of the head. Pectinations of antennæ (♂) somewhat shorter, the longest approximately two and one-half times the length of the segment. In the female, the antennal segments are long-unipectinate, the branch about as long as the segment, each branch terminating in two setæ.

Mesonotum light grey pruinose on a dark brown background, the præscutum with a darker brown median stripe. Pleura dark brown, grey pruinose. Halteres short, pale, the knobs infuscated, the stem fringed with setæ. Legs with the coxæ dark brown, sparsely pruinose ; trochanters yellowish brown ; femora yellowish brown with a broad terminal or narrower subterminal dark ring ; tibiæ brown, the tips passing into dark brown ; basal two tarsal segments brown, the tips narrowly darkened, the terminal tarsal segments uniformly brownish black. Wings tinged with yellow, the costal region more saturated ; stigma elongate-oval, pale brown, the margins darker, the centre almost hyaline, the outer end dark ; cord and outer end of cell 1st  $M_2$  vaguely seamed with darker. Venation :  $Sc_1$  ending opposite one-third to two-fifths the length of the angularly bent  $Rs$ ,  $Sc_2$  not far from its tip ;  $R_2$  transverse, a little longer than the oblique  $Sc_2$  beyond it ; cell 1st  $M_2$  closed, the petiole of cell 2nd  $M_2$  comparatively short, a little more than one-half the cell.

Abdomen dark brown, indistinctly bicolorous, the pattern reversed from that of *R. mutila* ; basal median areas of the segments paler, the caudal margins broadly dark brown ; hypopygium paler. Male hypopygium with the mesal lobe of the basistyle shorter and not darkened. Ventral dististyle with the rostral prolongation subchitinized and nearly glabrous, before the spines narrowed into a neck, the spines long, slender, curved, placed close together about their own length from the tip of the rostrum. Dorsal dististyle sickle-shaped, the apex suddenly narrowed to an acute point. Gonapophyses conspicuously darkened, the mesal lobe acute at apex. Ovipositor with the tergal valves relatively short, upcurved to the acute tips ; sternal valves long, stout, the bases blackened.

*Hab.* Tasmania.

*Holotype*, ♂, National Park, December 16, 1922 (*A. Tonnoir*).

*Allotype*, ♀, Mt. Farrel, February 9, 1923 (*A. Tonnoir*).

*Paratopotype*, 1 ♂; *paratypes*, 2 ♂♂, 1 ♀, Adventure Bay, Dec. 24–31, 1922 (*A. Tonnoir*).

*Rhipidia pallidistigma funeralis*, subsp. n.

*Female*.—Length 7.5 mm.; wing 9 mm.

Resembling the typical form, but the general coloration black, the præscutum with only a sparse bloom, the postnotum and pleura more heavily pruinose. Knobs of the halteres blackened. Femora with the tips broadly blackened, especially the fore femora where the outer two-thirds is blackened; tibiæ and tarsi black, the posterior basitarsus with the proximal half reddish brown. Wings with a dusky tinge, the stigma barely indicated except along the cephalic and distal margins. Abdomen uniformly blackened, the base of the ovipositor reddish brown, the valves still darker; bases of the sternal valves conspicuously blackened.

*Hab.* New South Wales.

*Holotype*, ♀, Wentworth Falls, Blue Mts., November 18, 1921 (*A. Tonnoir*).

*Orimargula tasmanica*, sp. n.

General coloration grey, the præscutum more infuscated; antennal segments subglobular; legs dark brown; wings with a pale brown tinge, the disk heavily spotted with brown; cell  $M_3$  sessile or nearly so.

*Male*.—Length about 5.5 mm.; wing 6.8 mm.

Rostrum light brown; palpi dark brown. Antennæ black throughout, relatively short; flagellar segments subglobular, with short verticils. Anterior vertex dark, the posterior vertex and occiput paler brown.

Mesonotum greyish brown, clearer grey on the posterior portion of the præscutum, the median area of the scutum, and the scutellum; postnotum dark, grey pruinose. Pleura heavily light grey pruinose. Halteres pale, the knobs yellow. Legs with the coxæ light grey; trochanters brown; remainder of legs dark brown, the femoral bases paler, the terminal tarsal segments darker. Wings with a pale brown tinge, the disk rather heavily spotted with darker brown; stigmal blotch large, connected with the spot at fork of  $R_s$ ; a spot near mid-length of  $R_3$ ; conspicuous clouds along the posterior cord and on  $m-cu$ . Venation: cell  $M_3$  sessile or subsessile.

Abdomen dark brown, heavily grey pruinose, the hypopygium paler. Male hypopygium with the basistyles long, cylindrical, unarmed; dististyles two in number, closely connected or slightly fused at base; outer dististyle a pale, flattened, cultriform blade that is a little shorter than the inner style, the latter with dense spinous setæ at apex, the mesal face with fewer and more scattered setæ, these becoming microscopic at base.

*Hab.* Tasmania.

*Holotype*, ♂, Wilmot, January 8, 1923 (*A. Tonnoir*).

*Orimargula tasmanica* is allied to *O. australiensis*, Alexander (N. Queensland), differing in its larger size, heavily spotted wings, and sessile or subsessile cell  $M_3$ .

*Elephantomyia tasmaniensis*, sp. n.

Rostrum fully as long as the body; anterior vertex clear grey; mesonotum brown, the humeral region of the præscutum more ochreous; legs dark brown; wings with a brown tinge, with sparse darker brown seams;  $m$  obliterated by the fusion of the outer deflection of  $M_3$  on  $M_{1+2}$ , closing cell 1st  $M_2$ .

*Male*.—Length (excluding rostrum) about 7.5 mm.; wing 9.6 mm.; rostrum about 7.8 mm.

Rostrum long and slender, a trifle longer than the remainder of the body, dark brown throughout, including the palpi. Antennæ dark brown, the apex of the second scapal segment obscurely paler; scapal segments small; flagellar segments cylindrical, the basal segments short, gradually lengthening, the terminal segment longest; all flagellar segments beyond the first with long verticils, these becoming longer on the intermediate and outer segments; only eleven segments present, the basal five segments about equal to the following two combined but not enlarged. Head clear light grey in front, the vertex more infuscated behind; anterior vertex narrow, only a trifle wider than the second scapal segment.

Pronotum and cervical sclerites dark brown above, ochreous brown laterally. Mesonotum brown, the humeral region more ochreous brown; median stripe brown and somewhat darker than the lateral stripes; scutum brownish ochreous, the centres of the lobes conspicuously dark brown; scutellum testaceous-brown; postnotum dark brown, sparsely pruinose. Pleura with the sternopleurite and anepisternum dark brown, sparsely pruinose, the pteropleurite pale, the pleurotergite pruinose, the general effect produced being a

dark brown pleura with a narrow pale transverse stripe extending from the hind coxæ to the wing-root. Halteres pale, the knobs dark brown. Legs with the coxæ dark, pruinose; trochanters brownish yellow; femora dark brown, the bases narrowly paler; tibiæ and tarsi dark brown; no evident tibial spurs; femora and tibiæ with appressed setæ and scattered erect larger bristles. Wings with a brown tinge, rather conspicuously clouded with darker brown; stigma long-oval, slightly darker brown; extensive dusky clouds at origin of *Rs*, along the cord and outer end of cell 1st *M*<sub>2</sub>; wing-tip and vein *Cu*<sub>1</sub> seamed with brown; an oval pale area in the prearcular cell; veins dark brown; macrotrichia short and sparse, dark brown. Series of trichia on the serial vein *R*<sub>2+3+4</sub> and *R*<sub>4</sub>, and on the distal section of *R*<sub>5</sub>, longer and more delicate on the medial veins beyond the cord. Venation: *Sc*<sub>2</sub> longer than *Sc*<sub>1</sub>, extending to just beyond the fork of *Rs*, the latter square and long-spurred at origin; cell 2nd *M*<sub>2</sub> narrowly sessile or short-petiolate, the basal deflection of *M*<sub>3</sub> occupying the entire outer end of cell 1st *M*<sub>2</sub>, completely obliterating *m*; *m-cu* at about two-thirds the length of cell 1st *M*<sub>2</sub>, longer than the distal section of *Cu*<sub>1</sub>; anterior arculus pale but indicated.

Abdomen yellowish brown, the segments narrowly margined laterally and caudally with brown; subterminal segments entirely dark brown; hypopygium obscure brownish yellow.

*Hab.* Tasmania.

*Holotype*, ♂, Mt. Farrel, February 8, 1923 (*A. Tonnoir*).

*Elephantomyia tasmaniensis* is allied to *E. ruapehuensis*, Alexander (New Zealand), in the spurless tibiæ and general appearance. The species should not be placed in *Elephantomyodes*, and, because of their spurless tibiæ, a new subgeneric group may eventually be required for their reception.

*Elephantomyia tasmaniensis tasmaniensis*, subsp. n.

*Male*.—Length (excluding rostrum) 7.5–8 mm.; wing 8–9 mm.; rostrum alone about 7–7.5 mm.

*Female*.—Length (excluding rostrum) 10–11 mm.; wing 10–10.8 mm.; rostrum 7–7.5 mm.

Closely resembling the typical form, differing especially in the more uniformly darkened pleura, the heavier wing-pattern, and other details of coloration.

This series allows us to make more definite statements regarding the range of variation in the species.



Rostrum shorter than the body in both sexes. Median præscutal stripe entire to weakly divided. Pleura in most cases uniformly darkened, pruinose. Wing-pattern heavy and conspicuous, most of the longitudinal veins being seamed with darker. Venation: *Rs* angulated with a short to longer spur; cell *2nd M*<sub>2</sub> usually short-petiolate, in rare instances sessile; *m-cu* beyond mid-length of cell *1st M*<sub>2</sub>, usually at near two-thirds the length. Abdominal tergites more uniformly dark brown.

*Hab.* New South Wales.

*Holotype*, ♂, Barrington Tops, January 1925 (*Sydney Univ. Zool. Exp.*); type in the Macleay Collections, U. of S.

*Allotopotype*, ♀.

*Paratopotypes*, 4 ♂ ♀.