# THE ANNALS

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XXXI.—New or little-known Tipulidæ (Diptera).—XVII.

Australasian Species. By Charles P. Alexander, Ph.D.,
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THE crane-flies described in the present instalment are all from the South Island of New Zealand, where they were collected in the Provinces of Westland, Otago, and Southland by my friends Messrs. Campbell, Fenwick, Harris, Oliver, and Lindsay, to whom my sincere thanks are extended. The types are preserved in the writer's collection.

## Dicranomyia paradisea, sp. n.

Belongs to the *huttoni* group; size large (wing of 3 8.5 mm. or more); general coloration reddish brown, the antero-median region of the præscutum infuscated; pleura largely dark brown; femora with a very narrow subterminal brown ring; wings strongly tinged with yellow; cord and outer end of cell 1st  $M_2$  broadly infuscated; a very small seam at origin of Rs; abdomen dark brown, the hypopygium obscure yellow.

Male. - Leugth 7 mm.; wing 8.9 mm.

Female.—Length 7.4-7.5 mm.; wing 8.6-8.8 mm.

Rostrum relatively short, about one-half longer than the head, dark brown; palpi black. Antennæ black throughout; pedicels of flagellar segments conspicuous in both sexes. Head dark grey.

Mesonotum reddish brown, the antero-median area of the præscutum slightly infuscated. Pleura dark brown, the propleura obscure brownish yellow; pleuro-tergite of postnotum infuscated. Halteres obscure vellow, the knobs darker. Legs with the coxe and trochanters obscure yellow; femora yellow with a narrow and relatively indistinct subterminal brown ring; tibiæ and basal three tarsal segments brownish yellow; terminal tarsal segments dark brown. Wings strongly tinged with yellow; stigma oval, dark brown, conspicuous; conspicuous brown seams along the cord and outer end of cell 1st  $M_2$ ; seam at origin of Rs and on  $Sc_2$ very narrow and indistinct; a brown seam behind vein Cu; veins dark brown, those at wing-base and in costal region Venation: Sc short, Sc, ending shortly more vellowish. beyond the origin of Rs;  $Sc_2$  about opposite this origin; basal deflection of  $Cu_1$  at the fork of M.

Abdomen dark brown, the basal sternites a little paler; hypopygium obscure yellow; male hypopygium with the ninth tergite semicircular in outline, divided by a U-shaped notch into rounded lobes. Ventral dististyle with a long rostrum, the spines separate, the outer spine shorter; setæ at apex of rostrum on cephalic side more slender than in cubitalis. Dorsal dististyle less strongly curved than in cubitalis. Gonapophyses with the mesal apical lobe very long, infuscated. Ovipositor with the valves reddish horn-colour.

nour.

Hab. New Zealand (South Island).

Holotype, &, Paradise, Wakatipu District, Otago, December 22, 1922 (C. C. Fenwick).

 $Allotopotype, \ \cite{Baratopotype}, \ \cite{Baratopotype}.$ 

## Dicranomyia unicornis, sp. n.

Belongs to the huttoni group; head dark grey; mesonotum dull brown, the lateral margins of the præscutum brightening into ochreous; femora with a conspicuous black subterminal ring; wings faintly tinged with yellow, the stigma brown; abdominal segments narrowly ringed caudally with yellow; male hypopygium with the rostrum of the ventral dististyle bearing a single very conspicuous spine; tergal valves of ovipositor very short, upcurved.

Male.—Length 5.5 mm.; wing 6.8-7 mm.

Female.—Length about 6.5 mm.; wing 6.5-7 mm.

Rostrum black, including the palpi, the rostrum about twice the length of the head. Antennæ black, the basal flagellar segments feebly bicolorous, especially in the female,

the base of each segment being narrowly pale. Head dark grev.

Mesonotum dull brown, the lateral margins of the præscutum and scutal lobes brightening into ochreous; anterior margins of scutal lobes slightly darkened; median area of scutum and the scutellum pale; postnotum yellow, darkened Pleura obscure yellow, the dorsal sclerites strongly infuscated, the ventral sclerites more or less pruinose; sterno-pleura sometimes more or less infuscated. Halteres very pale brown. Legs with the coxe pale, very indistinctly infuscated; trochanters yellow; femora yellow, with a conspicuous but narrow black ring that is about its own length before the tip; tibiæ and metatarsi yellow, passing into brown at tip; remaining tarsal segments gradually passing into brown. Wings with a faint yellow tinge; stigma oval, pale brown; cord and outer end of cell 1st  $M_2$  very narrowly and indistinctly seamed with darker; veins dark brown. Venation: Sc ending opposite or a short distance beyond the origin of Rs,  $Sc_2$  not far from its tip; basal deflection of  $Cu_1$  at or near the fork of M,

Abdomen black, the basal segments narrowly but distinctly ringed with obscure yellow; in the male segments 5 to 7 more uniformly brown; in most females all the tergites are conspicuously ringed with yellow; sternites often pale, with the lateral margins darkened; male hypopygium obscure reddish. Male hypopygium with the ninth tergite having a shallow U-shaped notch, each lateral lobe and a median area setiferous. Mesal lobe of basistyle very large and broad, densely setiferous; dorsal dististyle gently arcuated, the acute apex suddenly curved; ventral dististyle relatively small with a conspicuous rostrum that bears a single very long and powerful spine that is longer than the rostrum alone, directed slightly basad. Mesal apical angle of each gonapophyse produced into a long slender rod that is weakly serrulate along the lateral margin. Ovipositor with the tergal valves very short and strongly upcurved.

Hab. New Zealand (South Island).

Holotype, &, Ross, Westland, February 17, 1923 (T. R. Harris).

Allotopotype,  $\mathfrak{P}$ .

Paratopotypes, 40 ♂♀, February 17-23, 1923 (T. R. Harris); paratypes, 5 ♂♀, Greymouth, Westland, February 27, 1923 (T. R. Harris).

Dicranomyia tricuspis, sp. n.

Belongs to the fasciata group; general coloration dark

grey; wings subhyaline, sparsely variegated with grey; no cloud at origin of Rs, but a conspicuous seam along the cord; cell  $1st\ M_2$  open by the atrophy of m; male hypopygium with each gonapophyse tricuspid.

Male.—Length 5-5.5 mm.; wing 6.2-6.5 mm. Female.—Length about 5.5 mm.; wing 6 mm.

Rostrum and palpi brownish black. Antennæ small,

black throughout. Head dark grey.

Mesonotum brownish black, very sparsely grey-pruinose; scutellum and postnotum light grey. Pleura black, sparsely grey-pruinose. Halteres dark brown, the base of the stem light vellow. Legs with the fore and middle coxæ concolorous with the pleura; posterior coxæ paler, obscure yellow; trochanters yellowish testaceous; femora brown, paler at base; tibiæ and tarsi black. Wings subhvaline; prearcular region paler; membrane clouded with brownish grey; stigma oval, brown; a broad and conspicuous seam along the cord; a conspicuous cloud at base of cell  $M_3$ ; postarcular region indistinctly infuscated; veins dark brown. Venation: Sc short, Sc, ending opposite or close to the origin of Rs,  $Sc_2$  some distance from the tip of  $Sc_1$ , the latter alone longer than the basal deflection of Cu1; Rs short, gently arcuated, about one-third to one-half longer than the basal deflection of  $R_{4+5}$ ; cell 1st  $M_2$  open by the atrophy of m; cell  $M_3$  usually shorter than its petiole; basal deflection of  $Cu_1$  close to or before the fork of M. In the allotypic  $\mathfrak{P}$ Rs is long-spurred near origin.

Abdomen with the basal sternites paler than the remaining segments, which are dark slate-black, including the hypopygium. Male hypopygium with the ninth tergite scarcely notched medially. Basistyle with the mesal lobes relatively low, terminating in a pencil of spinous bristles; ventral dististyle small, fleshy, narrowed apically, and here with a fringe of setæ; no rostrum; dorsal dististyle gently curved, suddenly narrowed to the acute apex. Gonapophyses terminating in three spines or teeth, there being a median pale tooth. Ovipositor with the tergal valves very slender, acute.

Hab. New Zealand (South Island).

Holotype, &, Rewanui, Paparoa Range, Westland, altitude 600-800 teet, February 15, 1923 (T. R. Harris).

Allotopotype,  $\mathfrak{P}$ .

Paratopotypes,  $\mathfrak{F} : \mathfrak{F} : \mathfrak{F}$ 

Dicranomyia cinerella, sp. n.

General coloration grey, the præscutum infuscated except laterally; antennæ black throughout; legs black, only the

femoral bases narrowly pale; wings tinged with brown; stigma elongate, darker brown; Sc short,  $Sc_1$  longer than Rs; abdomen dark brown; ventral dististyle of male hypopygium very large and fleshy.

Male.—Length about 7.5 mm.; wing 9 mm.

Rostrum black, grey-pruinose; palpi black. Antennæ black throughout, the flagellar segments oval. Head dark

grey.

Mesonotal præscutum dark brownish grey, the lateral margins and humeral region ashy grey; scutum grey, the centres of the lobes infuscated; scutellum and postnotum light grey. Pleura light grey-pruinose throughout. Halteres relatively short, pale, the knobs darker. Legs with the coxæ dark grey; trochanters infuscated apically; femora black, only the narrow bases paler; remainder of the legs black. Wings rather strongly tinged with brown; stigma elongate, darker brown; barely visible brown seams along the cord; Venation:  $Sc_1$  ending about opposite veins dark brown. the origin of Rs, Sc<sub>2</sub> removed to a distance from the tip of Sc, that is greater than the length of Rs; Rs strongly arcuated; basal deflection of  $R_{4+5}$  nearly straight, about twothirds Rs; cell 1st  $M_2$  elongate, gently widened distally; basal deflection of  $Cu_1$  at the fork of M.

Abdomen dark brown, the basal sternites slightly paler. Male hypopygium with the apex of the ninth tergite with a conspicuous U-shaped median notch; basistyles of hypopygium small; ventral dististyle very large, fleshy, the rostral prolongation small with two relatively short, subequal spines; dorsal dististyle relatively small. Gonapophyses with the mesal apical angle produced into a short lobe that is slightly curved at apex.

Hab. New Zealand (South Island).

Holotype, &, Paradise, Wakatipu District, Otago, December 22, 1922 (C. C. Fenwick).

## Molophilus imberbis, sp. n.

Belongs to the *macrocerus* group; wings broad, distinctly tinged with brown; male hypopygium with the basal dististyle very conspicuous, appearing as a long cylindrical stem, dilated at the apex into a short triangular head.

Male.—Length about 4 mm.; wing 5.2-5.6 mm.

Rostrum and palpi black. Antennæ elongate, dark brown, if bent backward extending to about opposite mid-length of the abdomen, its structure as in the macrocerus group of species. Head dark grey.

Mesonotal præscutum and scutal lobes dark brownish

grey, the humeral region and lateral margins of the former narrowly ochreous; remainder of the mesonotum dark brown. Pleura shiny, dark brown. Halteres yellow throughout. Legs with the coxe and trochanters obscure yellow; femora yellow, the tips indistinctly darkened; tibiæ brownish testaceous, the tips and the tarsi darker. Wings broad, distinctly tinged with brown; macrotrichiæ and veins darker brown. Venation: basal deflection of  $Cu_1$  a short distance beyond the fork of M; vein 2nd A elongate, ending about opposite three-fourths the length of the petiole of cell  $M_3$ .

Abdomen dark brown, with yellowish setæ; hypopygium brighter brown. Male hypopygium of the structure of the macrocerus group, the outer dististyle small; basal dististyle very conspicuous, appearing as a long, slender, cylindrical stem that gradually dilates into a short triangular blade, the apex and margins for a short distance back from the tip provided with black spinous setæ; no setæ or spines except

at or near the apex.

Hab. New Zealand (South Island).

Holotype, 3, Greymouth, Westland, February 12, 1923 (T. R. Harris).

Paratopotypes, 2 33.

#### Molophilus remotus, sp. n.

Belongs to the macrocerus group; male hypopygium with the basal dististyle before the middle of its length armed with a dense area of black setæ and terminating in a long straight spine.

Male.—Length about 3.5-3.8 mm.; wing 4-4.6 mm.

Rostrum and palpi dark brown. Antennæ elongate, only a little shorter than the entire body; scapal segments dull ochreous, the flagellum black; structure as in the macrocerus

group of species. Head brownish black.

Mesonotum dark brown, in some specimens the humeral region and lateral margins rather narrowly otherous. Pleura dark brown-pruinose. Halteres pale brown, the base of the stem a little paler. Legs with the coxæ and trochanters otherous; femora brown, the bases more yellowish; remainder of the legs darker, the terminal tarsal segments black. Wings tinged with brown, the veins and macrotrichiæ still darker brown. Venation: about as in M. im-berbis, sp. n.; vein 2nd A ending about opposite two-thirds the length of the petiole of cell  $M_3$ .

Abdomen dark brown, including the hypopygium. Male hypopygium of the structure of the macrocerus group. Basal dististyle elongate and conspicuous, slender basally, before

mid-length on the mesal face produced into a short chitinized ridge that is densely set with abundant black spinous setæ; beyond this point, the style is curved gently mesad and becomes feebly dilated, the apex running out into a long, straight, black spine.

Hab. New Zealand (South Island).

Holotype, & Rewanni, Paparoa Range, Westland, altitude 600-800 feet, February 15, 1923 (T. R. Harris).

Paratopotypes, 3; paratypes, 1 3, Greymouth, Coal Creek Track, February 13, 1923 (T. R. Harris); 4 3 3, Ross, Westland, February 17-21, 1923 (T. R. Harris).

#### Molophilus evanidus, sp. n.

General coloration grey; antennæ of the male moderately elongate; wings relatively narrow, faintly tinged with brown; male hypopygium with the dististyles elongate, the basal style bifid at apex, at near two-thirds the length with a conspicuous erect black spine.

Male.—Length about 3 mm.; wing 3.4-3.6 mm.

Rostrum and palpi black. Antennæ of the male moderately long, if bent backward extending to beyond the base of the abdomen, black throughout. Head with the centre of the vertex dark grey, the orbital regions ochreous.

Mesonotal præscutum and scutum dark grey, the humeral region and the latter ends of the pronotal scutellum sulphuryellow; pseudo-sutural foveæ linear, black; scutellum yellow, sparsely whitish-pruinose; postnotum dark grey, the lateral and cephalic regions of the medio-tergite more yellowish. Pleura grey, indistinctly striped longitudinally across the dorsal margin of the sterno-pleura with obscure yellow. Halteres short, pale brown, the stem yellow. Legs with the coxæ, trochanters, and femoral bases pale brown, the remainder of the legs darker brown. Wings relatively narrow, faintly tinged with brown; veins and macrotrichiæ light brown. Venation: vein 2nd A relatively short, ending just beyond the base of the petiole of cell  $M_3$ .

Abdomen dark brown, the extreme caudal margins of the basal tergites yellowish; hypopygium reddish brown. Male hypopygium with the basistyle terminating in a tiny, black, conical spine. Dististyles elongate, the outer pair more than one-half the length of the basal; outer style slender, the apex dilated, twisted, with a straight, appressed, black spine at the base of the dilated portion; basal style straight basally, beyond mid-length feebly dilated into a blade, thence gradually narrowed into the slender and more chitinized apical third; apex split into two spines; at about two-thirds the length of

the style on the ventral face a conspicuous, erect, black spine.

Hab. New Zealand (South Island).

Holotype, &, Ross, Westland, February 17, 1923 (T. R. Harris).

Paratopotype, 3, February 21, 1923.

#### Molophilus picturatus, sp. n.

General coloration yellow, the mesonotum spotted with brown; head infuscated; pleura yellow, striped longitudinally with dark brown; legs yellowish white, the apices of the segments blackened; wings whitish subhyaline, variegated with brown.

Male.—Length about 2.7 mm.; wing 2.9-3 mm. Female.—Length 2.6 mm.; wing 3.3-3.4 mm.

Described from alcoholic material.

Rostrum and palpi dark brown. Antennæ with the basal segment pale, the second scapal segment infuscated; flagellum pale. Head infuscated, the orbital regions paler.

Mesonotal præscutum yellow with three pale brown stripes that are sometimes obsolete, their anterior ends in all cases darkened to produce a spotted appearance; scutal lobes infuscated; scutellum yellow; postnotum dark brown. Pleura yellow with a conspicuous brown longitudinal stripe extending from the prothorax across the dorsal pleurites to the postnotum; sterno-pleura and meron likewise infuscated. Halteres pale. Legs with the coxæ and trochanters pale yellow; femora yellowish white, the tips broadly dark brown. the fore femora with an ill-defined subterminal ring of pale brown; tibiæ and basal two tarsal segments yellowish white. the tips broadly blackened; terminal three tarsal segments blackened. Wings whitish subhyaline, variegated with brown; a dark spot at h continued across the arculus: a broad band extends from the stigma completely across the wing, following the entire length of Cu and  $Cu_2$ ; an extensive infuscated area near mid-length of cell 2nd A and the adjoining parts of lst A; anal angle darkened; veins pale, darker in the infuscated areas. Venation: 2nd A moderately elongate, ending shortly beyond the fork of M.

Abdominal tergites brown, the pleural region paler; sternites yellowish brown. Male hypopygium of the general type of *M. plagiatus*, Alexander, and allies. Basal dististyle a straight rod that is feebly darkened apically, the outer margin with very weak appressed serrations.

Hab. New Zealand (South Island).

Holotype, &, Glenorchy, Wakatipu District, altitude 1200 feet, January 1, 1923 (F. S. Oliver).

Allotopotype,  $\circ$ .

Paratopotypes, 7 3 9.

All types preserved in alcohol.

#### Molophilus analis, sp. n.

General coloration yellow; antennæ short; wings relatively broad, strongly suffused with yellow; 2nd anal vein very long; male hypopygium with the basal dististyle straight, only the extreme apex darkened and weakly toothed.

Male. - Length 3.8-4 mm.; wing 3.8 mm.

Female.—Length 4-4.2 mm; wing 4 mm.

Described from alcoholic specimens.

Rostrum yellow, the palpi brown. Antennæ short, pale

brownish yellow. Head yellow.

Mesonotum and pleura clear yellow, unmarked. Halteres short, pale throughout. Legs yellow, only the terminal tarsal segments darkened. Wings relatively broad, strongly tinged with yellow, the costal and stigmal regions and a seam at the base of vein Cu darker yellow; veins yellow; macrotrichiæ pale brown. Venation: vein 2nd A very long, terminating opposite the base of cell  $M_3$ .

Abdomen pale yellowish brown, the hypopygium yellow. Male hypopygium with basistyles terminating in slender beaks, only the extreme apex of each blackened. Outer -dististyle deeply bifid, the arms separated by a U-shaped notch; basal dististyle of the general type of M. plagiatus, Alexander, and allies; a rather stout, straight, pale rod, the extreme apex darkened and very weakly and sparsely toothed.

Hab. New Zealand (South Island).

Holotype, &, Glenorchy, Wakatipu District, Otago, altitude 1200 feet, January 1, 1923 (F. S. Oliver).

Allotopotype,  $\circ$ .

Paratopotypes, 6 ♂♀.

## Molophilus basispina, sp. n.

General coloration yellow; præscutum with three conspicuous dark brown stripes; pleura largely yellow, the sterno-pleura narrowly dark brown; base of fore tibiæ infuscated; wings faintly tinged with greyish yellow; male hypopygium with the basal dististyle a powerful straight spine, with a smaller lateral spine at its base.

Male.—Length about 4 mm.; wing 3.8 mm.

Described from an alcoholic specimen.

Rostrum and palpi brown. Antennæ short, dark brown throughout. Head infuscated.

Mesonotal præscutum yellow with three conspicuous dark brown stripes; scutum obscure yellow, each lobe extensively dark brown; scutellum obscure yellow; medio-tergite of postnotum dark brown, the antero-lateral angles extensively yellow; pleuro-tergites yellow with a small brown spot immediately cephalad of the base of the halter. Pleura yellow, the sterno-pleura and meron dark brown ventrally. Halteres pale, the knobs whitish. Legs with the fore and middle coxæ weakly infuscated, the posterior coxæ yellow; trochanters yellow; only a single (fore) leg remains; femora yellowish brown; tibia yellow, the base extensively infuscated; tarsi broken. Wings faintly tinged with greyish yellow; veins yellow; macrotrichiæ pale brown. Venation: vein 2nd A long, ending about opposite mid-length of the petiole of cell  $M_3$ .

Abdomen dark brown. Male hypopygium with the basistyle produced into a high flattened beak that is pale in colour, feebly chitinized. Outer dististyle only feebly bifid at apex. Basal dististyle consisting of a powerful blackened spine, elongate-conical in shape; on outer side at base a smaller, slightly curved spine, the apical half blackened. What seems to be a projection from the ninth tergite projects

caudad as a tiny Y-shaped structure.

Hab. New Zealand (South Island).

Holotype, &, Glenorchy, Wakatipu District, Otago, altitude 1200 feet, January 1, 1923 (F. S. Oliver).

#### Gynoplistia neonebulosa, sp. n.

Female.—Length 22.5 mm.; wing 8.2 mm.; abdomen alone 19 mm.

Related to G. nebulosa, Edwards, differing as follows:

Pectinations of basal flagellar segments moderately long, the longest (flagellar segments 2-3) about two-thirds the length of the segment; flagellar segments at least three times as long as broad. Mesonotal præscutum with three brown stripes. Legs with the femora reddish brown, the tips slightly darker brown (in nebulosa there is a narrow, dark brown, subterminal ring); legs longer than in the corresponding sex of nebulosa. Wings with the dark markings smaller but deeper in colour, these including the blotches at base of cell R, at origin of Rs, the seam along the cord and a spot at the end of  $R_s$ ; wing-tip practically clear; veins

yellowish, darker in the infuscated areas. Abdomen elongate, as shown by the measurements above; sternal valves of ovipositor blackened.

Hab. New Zealand (South Island).

Holotype, ?, Lake Manapouri, Southland, altitude 600 feet, January 1-7, 1923 (S. Lindsay).

#### Gynoplistia princeps, sp. n.

Size large, form robust; antennæ 23-segmented; mesonotum shiny chestnut-brown; pleura longitudinally striped with shiny brown and brownish grey; wings subhyaline, with a very sparse brown pattern; vein 1st A bent strongly caudad just before mid-length.

Male.—Length 14.5 mm.; wing 14 mm.

Rostrum light brown, the mouth-parts obscure orange; palpi light brown, the terminal segments a little darker. Antennæ 23-segmented, the formula being 2+2+14+5; first scapal segment brown; second segment and rhachis of flagellar segments 1 and 2 orange; remainder of antennæ brownish black; the longest branch is about two-fifths the length of the flagellum. Head dark brownish grey, more reddish anteriorly.

Mesonotal præscutum with the disk shiny chestnut-brown. the broad humeral regions and narrower lateral margins duller brown; scutal lobes shiny brown; scutellum and postnotum dull brown, the latter darkened and shiny posteriorly. Pleura shiny brown, with longitudinal stripes of brownish-grey pollen. Halteres obscure orange. Legs with the coxæ dark-coloured, buffy-grey pruinose; trochanters obscure yellow; femora orange-brown, the tips scarcely darkened; tibiæ light brown, the tips indistinctly darkened; tibial spurs acutely pointed; tarsal segments 1-2 light brown. a little darkened at their tips; terminal tarsal segments dark brownish black. Wings subhyaline, with a very sparse brownish-grey pattern; a tiny cloud at the base of cell R; a small spot at origin of Rs; stigma oval, brown; a circular cloud at r-m; less distinct seams along the remainder of the cord; outer end of cell 1st  $M_2$ ; along some of the longitudinal veins; beyond mid-length of vein 1st A in cell 1st A and in the anal angle; veins brown. Venation: Sc long,  $Sc_2$  a little longer than  $Sc_1$  and ending just before the tip of  $R_{2+3}$ ; Rs very long; cell  $M_1$  about twice the length of its petiole; cell 1st  $M_2$  relatively short, the basal deflection of  $Cu_1$  near one-third its length; vein 1st A deflected strongly caudad just before mid-length; vein 2nd A strongly sinuous. Abdomen with the basal tergite shiny chestnut-brown; subterminal segments sparsely brownish-grey pruinose.

Hab. New Zealand (South Island).

Holotype, 3, Greymouth, Coal Creek Track, Westland, February 18, 1923 (T. R. Harris).

#### Gynoplistia subabsoleta, sp. n.

Allied to G. speciosa, Edwards; antennæ of the male 20-segmented; mesonotal scutum and posterior portions of the præscutum shiny greenish brown; femora brownish yellow with rather broad subterminal brown rings; posterior tibiæ with a subobsolete whitish ring; wings subhyaline with a heavy dark brown pattern.

Male.—Length 9-11 mm.; wing 9.5-12 mm. Female.—Length 15-16 mm.; wing 12 mm.

Rostrum and palpi brown. Antennæ 20-segmented in the male, the formula being 2+2+12+4; in the female, the antennæ are 18-segmented, with nine branched segments; antennæ with the scape fulvous, the flagellum and branches black; branches elongate in the male, the longest approximately one-half the length of the flagellum. Head shiny black, the occiput and anterior portion of the vertex more reddish.

Pronotum shiny chestnut-brown. Mesonotal præscutum and scutum shiny greenish brown, the former passing into chestnut-brown cephalad of the pseudosutural foveæ; in some cases the green colour is restricted to the scutal lobes: scutellum and postnotum shiny chestnut-brown. chestnut-brown, sparsely dusted with light grey, the dorsopleural region velvety-black. Halteres obscure orange. Legs with the coxe chestnut-brown, sparsely light grey pruinose; trochanters yellowish brown; femora brownish yellow with rather broad, conspicuous, dark brownish-black subterminal rings, the extreme apex narrowly pale; tibiæ brown, the tips blackened; posterior tibiæ with a broad, diffuse, nearly obsolete, whitish ring near mid-length, the setw being uniformly dark; tarsi brownish black; tibial spurs flattened. the oblique apex microscopically serrulate. Wings subhyaline, with a heavy dark brown pattern, including cell Sc: a subquadrate area at origin of Rs; a broad band across the wing at the level of the cord, including the stigma but leaving the centre of cell 1st  $M_2$  pale; wing-apex broadly infuscated; a conspicuous cloud along vein 1st A, more extensive opposite the level of the origin of Rs; an infuscation along vein 2nd A in cell 2nd A; veins dark brown, paler at the wingbase. Venation:  $Sc_2$  ending just before the fork of  $R_{2+3}$ ,  $Sc_2$  longer than  $Sc_1$ ; r far out near tip of  $R_1$ ; cell  $M_1$  longer than its petiole; basal deflection of  $Cu_1$  near mid-length of cell 1st  $M_2$ ; indications of a spur on vein  $R_2$  near its origin,

jutting into cell 1st  $R_1$  towards  $Sc_2$ .

Abdomen shiny brownish, with a violaceous subterminal ring in the male; hypopygium light chestnut-brown. Male hypopygium with each basistyle relatively stout, the mesal apical angle produced meso-caudad into a small chitinized point; mesal face of basistyle rather densely setiferous and bearing three small chitinized spines and teeth. Dististyles two, the outer larger, gradually expanded into an obtuse blackened apex, on the outer margin before the tip with a low chitinized tooth; inner style more slender, rather densely setiferous, some of the setæ conspicuous. Gonapophyses simple, slender, gently curved, narrowed to the acute apex, the distal third blackened.

Hab. New Zealand (South Island).

Holotype, &, Rewanui, Paparoa Range, Westland, altitude 600-800 feet, February 15, 1923 (T. R. Harris).

Allotype, 2, Ross, Westland, February 21, 1923 (T. R.

Harris).

Paratypes, 1 3, with the allotype; 2 3 3, Mahinapau, Westland, February 24, 1923 (T. R. Harris); 1 \(\varphi\), Blackball, Westland, December 1916 (J. W. Campbell); 2 3 3, Greymouth, Coal Creek Track, Westland, February 13, 1923 (T. R. Harris); 3 \(\varphi\), in copula, Greymouth, February 11, 1923 (T. R. Harris); 2 \(\varphi\), February 14, 1923.

## Gynoplistia hirsuticauda, sp. n.

General coloration grey; antennæ with seventeen segments, the flagellar branches short; femora black, yellowish basally, with a subterminal pale ring; male hypopygium with the mesal margins of the basistyles densely setiferous.

Male.—Length about 10 mm.; wing about 10 mm.

Rostrum and palpi black. Antennæ brownish black, 17-segmented, the formula being 2+5+5+5; longest branch about twice the length of the segment bearing it; terminal branch shorter than the segment; terminal segment about one-half longer than the penultimate. Head dark grey.

Mesonotal præscutum golden brown with three darker brown stripes, the median stripe divided by a line of golden pollen; præscutal interspaces conspicuously grey; pseudosutural foveæ black; humeral region dark brown; scutum and scutellum grey, dark brown laterally; postnotum dark brown. Pleura dark-coloured, light grey pruinose. Halteres

obscure orange, the apex of the knobs infuscated. Legs with the coxæ reddish, grey-pruinose; trochanters obscure yellow; femora broadly yellow basally, broadest on the fore legs, the apical half or thereabouts black with a reddishyellow subterminal ring, least conspicuous on the fore femora; tibiæ light brown, the tips blackened; remainder of the tarsi black; tibial spurs acutely pointed. Wings subhyaline with a brown pattern, including a large quadrate area at the origin of Rs, extending between veins R and M; a conspicuous seam along the cord, extending from the slightly darker stigma entirely across the wing; a seam at m; wing-apex broadly darkened, including all of cell  $M_1$ ; veins yellow, brown in the infuscated areas. Venation: Rs square and spurred at origin;  $R_{2+8}$  shorter than the deflection of  $R_{4+6}$ ; cell  $M_1$  about one-half longer than its petiole.

Abdomen dark brown, the basal segments pruinose, the lateral margins broadly obscure yellow; basal sternites dark, the subterminal segments and hypopygium pale. Male hypopygium with the mesal margin of the basistyle very extensively and conspicuously clothed with long yellow setæ; apical angle of basistyle produced into a short blunt lobe. Dististyles two, the outer style terminating in a slender black point; before this, on outer face, a high crest that is produced apically into a blunt lobe; inner style more slender, the caudal margin fringed with long setæ.

Hab. New Zealand (South Island).

Holotype, &, Queenstown, Wakatipu district, Otago, altitude 1000 feet, January 4, 1923 (F. S. Oliver).

## Gynoplistia dispila, sp. n.

General coloration shiny black, the head and pleura more pruinose, especially the latter; wings greyish subhyaline with two brown areas; basistyles of male hypopygium with a setiferous cushion on mesal face near base.

Male.-Length about 5-5.5 mm.; wing 5.5-6.2 mm.

Rostrum and palpi black. Antennæ 15-segmented, the formula being 2+2+8+3, with the possibility of there being an additional simple subterminal segment; scape black; basal one or two flagellar segments pale at the ends; remainder of the antenna black; flabellation of antenna of moderate length, less than one-half the length of the flagellum. Head black, indistinctly dusted with grey.

Mesonotal præscutum and scutal lobes shiny black; median area of the scutum and the scutellum and postnotum more brownish. Pleura black, almost concealed by a sparse appressed microscopic grey pubescence. Halteres pale, the base a little brighter. Legs with the coxæ and trochanters obscure yellowish testaceous; femora obscure yellow, the tips rather broadly blackened; tibiæ and metatarsi pale brown, the tips narrowly darker; remaining tarsal segments passing into darker brown. Wings greyish subhyaline, with two brown areas, the first small to subobsolete, near the origin of Rs; the second extending from the stigma along the cord to the fork of M or beyond on to the basal deflection of  $Cu_1$ ; veins dark brown. Venation:  $Sc_1$  ending opposite or shortly before the fork of Rs; Rs strongly angulated at origin; r about one and one-half times its length from the tip of  $R_1$  and near mid-length of the stigma; cell  $M_1$  a little longer than to approximately twice as long as its petiole; basal deflection of  $Cu_1$  about one-third its length beyond the fork of M.

Abdomen black, the basal sternites paler. Male hypopygium with the apical angle of the basistyle produced caudad into a moderately long setiferous lobe; mesal apical angle produced into a flattened glabrous point; mesal face setiferous, culminating in a small subglobular setiferous cushion near the base. Dististyles two, pale, subequal in length. Gonapophyses simple, each an almost straight subchitinized spine.

Hab. New Zealand (South Island).

Holotype, &, Rewanui, Paparoa Range, Westland, altitude 600-800 feet, February 15, 1923 (T. R. Harris).

Paratype, &, Ross, Westland, February 23, 1923 (T. R. Harris).

## Gynoplistia pygmæa, sp. n.

General coloration shiny coal-black; antennæ 15-segmented, the flabellations elongate; halteres with dark brown knobs; wings hyaline with a rather sparse brown pattern; cell  $M_1$  present; male hypopygium with each basistyle produced apically into a lobe that is shaped somewhat like a duck's head.

Male.-Length 3.8 mm.; wing 4.3 mm.

Rostrum and palpi brownish black. Antennæ 15-segmented, the formula being 2+2+6+5; the eleventh segment is very indistinctly produced at apex; the terminal segment is narrowed at apex and apparently formed by the fusion of two segments; scape dark brown; basal two flagellar segments obscure yellow; remainder of flagellum, including all branches, brownish black; antennal flabellations elongate, the longest (segments 5 and 6) about one-half the length of the flagellum. Head shiny black.

Mesonotum shiny black. Pleura similarly coloured, with a narrow line of microscopic grey pubescence extending from the wing-root ventrad to above the mid and hind coxe where the area broadens out. Halteres yellow, the knobs conspicuously dark brown. Legs with the coxe and trochanters testaceous yellow; femora similar, the tips feebly dilated and conspicuously blackened; tibiæ pale brown, the tips narrowly blackened; tarsi black, the base a little paler. Wings hyaline, with a rather sparse brown pattern, including a small postarcular spot in the base of cells R and M; a square area at origin of Rs, with similar pale clouds in cells M and 1st A forming a broken fascia at this level; stigma brown, connecting with a conspicuous seam along the cord, this interrupted at cell 1st  $M_2$  which is only narrowly seamed at the ends with darker; wing-apex pale; a tiny brown cloud at fork of  $M_{1+2}$ ; veins dark brown. Venation: Rs elongate, arcuated at origin; r very faintly indicated; cell  $M_1$  about one-half longer than its petiole; basal deflection of  $Cu_1$  near mid-length of cell 1st  $M_2$ .

Abdomen black, including the hypopygium. Male hypopygium with each basistyle stout, the mesal apical angle produced into a lobe that is shaped somewhat like the head of a duck, the beak-like apex depressed, subacute. Dististyles two, the outer slender, terminating in a narrow attenuate apex; inner style broader, the apex abruptly narrowed into a short cylinder. Gonapophyses simple, elongate, gently

curved, the apex with numerous weak denticles.

Hab. New Zealand (South Island).

Holotype, &, Ross, Westland, February 21, 1923 (T. R. Harris).

## Dolichopeza fenwicki, sp. n.

General coloration light grey, the prescutum with three conspicuous dark brown stripes, the median one split by a paler brown vitta; antennæ relatively short, the flagellum black; legs black; wings strongly tinged with brown, with three conspicuous whitish blotches on distal half; abdominal segments greyish plumbeous, the base and apex of each of the intermediate segments broadly dark brown.

Male.—Length 10 mm.; wing 10.5 mm.

Rostrum dark brown; palpi black, the terminal segment paling into brown. Antennæ relatively short, if bent backward scarcely reaching the base of the halteres; basal segment of scape brown, dusted with grey; second segment brown; flagellum black. Head light grey, the vertical tubercle paler, the occipital region darkened.

Mesonotal præscutum light grey with three very con-

spicuous dark brown stripes, the median stripe split by a narrow, paler brown vitta; the small pseudosutural foveæ surrounded by a pale brown cloud; scutum pale buffy grev. the lobes conspicuously marked with dark brown; scutellum and postnotum brownish grey, the medio-tergite of the latter narrowly margined posteriorly and laterally with dark brown. Pleura light grey, variegated with dark brown, this especially conspicuous on the sterno-pleura and meron. elongate, pale brownish yellow, the knobs dark brown, their knobs scarcely if at all paler. Legs with the coxæ pale, sparsely pruinose, more distinct on the fore coxæ; trochanters pale yellowish white; remainder of the legs brownish black throughout, the femoral bases a little paler. Wings with a strong brown suffusion; stigma large, darker brown; conspicuous whitish areas before the stigma, including parts of cells C, Sc, and R; near the fork of M, including portions of cells R and, especially, the base of  $2nd M_2$ ; a third conspicuous area occupies the base of cell  $2nd R_i$  beyond the stigma; veins dark brown. Venation: practically as in D. parvicauda, Edwards.

Abdominal segments pale greyish plumbeous, banded with dark brown, about the basal and apical third of each segment brown, the middle third or a little more being of the ground-colour; on the subterminal tergites the colour becomes more uniformly dark brown; on the subterminal sternites the apical brown band becomes obsolete. Hypopygium

small, dark brown.

Hab. New Zealand (South Island).

Holotype, &, Glenorchy, Wakatipu district, altitude 1200 feet, January 4, 1923 (C. C. Fenwick).

This very distinct species of *Dolichopeza* is named in honour of the collector, Mr. Cuthbert C. Fenwick.

#### [Plate VIII.]

#### Subfamily ATTELABINE.

Attelabus lacertosus, sp. n. (Pl. VIII. fig. 5.)

3 ?. Head, rostrum, antennæ, prothorax, sternum, and legs shiny blue-black; elytra and venter testaceous brown to red-brown.

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XXXII.—On new Species of Curculionidæ from India (Coleoptera). By Guy A. K. Marshall, C.M.G., D.Sc., F.R.S.