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NEW OR LITTLE-KNOWN SPECIES OF AUSTRALIAN TIPULIDAE (DIPTERA). i.

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(*Communicated by Dr. E. W. Ferguson.*)

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During the past ten years the writer has been engaged in a study of the crane-flies of the Australasian Region, with the ultimate view of monographing the group from this Region. During the progress of this study, very large and interesting collections of Australian Tipulidae have been received for study from the authorities in charge of the collections of the South Australian Museum, the Queensland Museum, the British Museum of Natural History, the Paris Museum, the Natural History Museum in Vienna, the Bernice P. Bishop Museum in Honolulu, and other notable collections. Very valuable notes on the present condition of the Skuse Collection in the Macleay Museum were sent me by the Acting Curator, Mr. John Shewan, through the courtesy of the Senate of the University of Sydney. In addition, many individual collectors have generously submitted material, among these men being Messrs. Alan P. Dodd, Hardy, Heron, Hill, Illingworth, Searle and Tillyard. The writer's sincere thanks and appreciation are extended to these collectors and custodians of the collections above listed for their kind co-operation in this matter. In the present paper, a few undescribed species are discussed and some records of distribution for other species given. Unless stated to the contrary, the types of the new species described herein are preserved in the collection of the writer.

DICRANOMYIA (IDIOGLOCHINA) AUSTRALIENSIS, n.sp.

General colouration brown, the pleura pruinose; wings grey; cell 1st M_2 about as long as vein Cu_1 beyond it.

♂. Length, 4.5 mm.; wing, 4.8 mm. ♀. Length, 4.5 mm.; wing, 5 mm.

Rostrum and the very short palpi brown. Antennae light yellowish-brown, the scape a little more yellowish. Head brown, the orbits somewhat paler.

Mesonotum greyish brown, the dorsum clearer brown, the humeral region slightly paler; scutellum obscure yellow. In the female, the mesonotum is more rufous brown. Pleura grey, the lateral sclerites of the postnotum more whitish. Halteres yellow, the knobs brown. Legs with the coxae brown, dusted with grey; trochanters yellowish-brown; remainder of the legs pale brown. Wings

grey; veins brown. Venation: As in *D.* (*I.*) *debeauforti* (de Meijere) but Rs more gently arcuated, so cell 1st R_1 is elongate-oval in outline; cell 1st M_2 about as long as vein Cu_1 beyond it. In the female, Rs is straighter.

Abdomen brown, the hypopygium obscure yellow. Ovipositor with the valves long and straight.

Hab.—North Australia.

Holotype, ♂, "Mou. Isl." * (G. F. Hill); *Allotopotype*, ♀.

The subgenus *Idioglochina* now includes four described species, all being Australasian, with the exception of one Formosan form. The group had not hitherto been found in Australia.

Dicranomyia zonata Skuse.

1889. *Dicranomyia zonata*, Skuse, Proc. Linn. Soc. N.S.W., (2), iv., 770.

Tasmania: Wilmot (Carter and Lea); Coll. South Australian Museum.

Geranomyia (Proaporosa) bancrofti, n.sp.

General colouration obscure yellow, the disc of the praescutum and the scutal lobes darker; wings subhyaline with brown dots at the origin of Rs, at *r* and at the supernumerary crossvein in cell Sc.

♂. Length, excluding rostrum, about 5.5 mm.; wing, 7.3 mm. ♀. Length, excluding rostrum, about 6 mm.; wing, 7.5 mm.

Rostrum about one-third longer than the head, pale brown, the uni-articulate palpi a little darker. Antennae obscure yellow. Head pale brownish testaceous.

Mesonotum pale testaceous yellow, the disc of the praescutum reddish-brown, produced by the confluent stripes, the colouration continued caudad onto the scutal lobes. Pleura obscure yellow. Halteres yellow. Legs with the coxae and trochanters yellow; remainder of the legs pale brownish testaceous, the terminal tarsal segments darker. Wings subhyaline with three very indistinct brown dots, one at the stigma, one at the origin of Rs, the third at the supernumerary crossvein in cell Sc; veins pale brown. Venation: Sc short, Sc_1 ending about opposite one-third the length of Rs, Sc_2 immediately beyond the origin of Rs; Rs angulated at origin; cell 1st M_2 large, rectangular, gently widened distally; *m* in alignment with the outer deflection of M_3; basal deflection of Cu_1 about one-third its length beyond the fork of M.

Abdomen light brown, the intermediate segments discoloured in the type. Hypopygium with the dorsal pleural appendage stout and black, the acute tip short.

Hab.—South Queensland.

Holotype, ♂, Burpengary, September 2, 1899 (T. L. Bancroft); *Allotopotype*, ♀, September 8, 1899. Types in the collection of the British Museum (Natural History).

Geranomyia bancrofti is related to *G. pictithorax* Alex., differing in the larger size and the colouration of the wings and thorax.

Discobola australis (Skuse).

1889. *Trochobola australis*, Skuse, Proc. Linn. Soc. N.S.W., (2), iv., 784-785.

New South Wales: Dorrigo (W. Heron), Coll. South Australian Museum; Ourimbah, September 3, 1904 (R. Helms), Coll. Bishop Museum; Victoria: Ringwood, September 23, 1918 (G. F. Hill), Alexander Coll.; Tasmania: Strahan (Carter and Lea), Coll. South Australian Museum.

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*[This is probably Moa or Banks I., Torres Strait.—Ed.]

DAPANOPTERA RICHMONDIANA Skuse.

1896. *Dapanoptera richmondiana,* Skuse, Rec. Aust. Mus., 2, 106-110.

Queensland: Babinda, October and November 10, 1920 (J. F. Illingworth), in wet caverns along streams, Alexander Coll.; Cairns District (A. M. Lea), Coll. South Australian Museum.

Hitherto known only from the types taken in New South Wales (Upper Richmond River, in March).

PARAGYMNASTES, n. gen.

Legs provided with numerous flattened scales in addition to the usual setae; femora not clavate. Cell R_2 of the wings large and conspicuous, vein R_2 being elongate; cell 1st M_2 short-rectangular, sometimes open by the atrophy of M_3.

Genotype, *Gnophomyia fascipennis* (Thomson). (Australia).

Edwards has pointed out the close relationship existing between the genus *Gymnastes* Brunetti and the present group, which includes, besides the genotype, *P. gloria* (Alex.), *P. cyanoceps* (Alex.) and *P. nigripes,* n.sp., all the known species being Australian. It is probable that the *Gymnastes* group has been derived from flies that were generally similar to the above group of species. The species of *Paragymnastes* show a conspicuous sexual dimorphism, the pattern of the wings of the female (except *P. gloria*) being very different from that of the male. The species of *Gymnastes,* which occur in the Eastern Palaearctic, Oriental and Ethiopian Regions, are to be distinguished from those of *Paragymnastes* not only by the venational characters listed above, but by the structure of the legs and the male hypopygium.

The following comparison of characters will suffice to show the more important venational differences between the groups:

Gymnastes Brunetti. Vein R_2 short, oblique, more or less fused basally with *r,* cell 2nd R_1 being very small or triangular [*G. ornatipennis* (de Meijere), *pictipennis* (Edwards), *pennipes* Brunetti, *flavitibia* (Alexander) and *hyalipennis* (Alexander)], or cell R_2 being completely obliterated [*G. cyanea* (Edwards), *bistriatipennis* Brunetti, *teucholaboides* (Alexander) and *shirakii* (Alexander)]; Rs shorter, more or less arcuated at origin; cell 1st M_2 very elongate, strongly widened distally, approximately as long as, to one-third shorter than, vein M_3 beyond it.

Paragymnastes, n. gen. Vein R_2 long, running generally parallel to vein R_3, cell 2nd R_1 being elongate; *r* present, rarely lacking [*P. cyanoceps* (Alexander)]; Rs elongate; cell 1st M_2 short-rectangular, gently widened distally, about one-third the length of vein M_3 beyond it; rarely (*P. cyanoceps*) open by the atrophy of the outer deflection of M_3.

PARAGYMNASTES NIGRIPES, n.sp.

Legs of the male largely black, in the female with an orange subterminal ring on the femora and with the basal half of the metatarsi pale.

♂. Length, 4.2 mm.; wing, 5.2 mm. ♀. Length, 6.8 mm.; wing, 5.6 mm.

Male. Rostrum and palpi black. Antennae with the scapal segments obscure yellow, the first segment dark basally, the second segment dark apically; flagellum black. Head black, sparsely pruinose, the genae passing into reddish.

Pronotum and mesonotum shiny reddish-yellow, the praescutum with four black stripes on the posterior half of the sclerite, obliterated anteriorly; scutal lobes black; remainder of the mesonotum more yellowish. Pleura yellow, the

mesepimeron sparsely pruinose. Halteres brown, the base of the stems and the knobs blackish. Legs with the coxae and trochanters yellow, the posterior and middle coxae sparsely pruinose; legs black with about the basal third of the femora obscurely paler. Wings greyish, subhyaline, the base and costal region yellowish; disc almost covered by dusky bands, leaving narrow areas of the ground-colour before the cord, before the origin of Rs and in the bases of the anal cells. Venation: As in *P. fascipennis* (Thoms.); cell 1st M_2 tending to be open by the atrophy of the outer deflection of M_3.

Abdominal tergites obscure orange-yellow, the caudal half of each segment black, the basal half less distinctly darkened medially; sternites obscure yellow; hypopygium orange-yellow.

Female. Like the male, differing as follows: The praescutal stripes represented only by a vague darkening before the suture. Femora with a conspicuous orange ring before the tip, more clearly defined on the fore legs; metatarsi with the basal half fulvous. Wings dark brown with three white cross-bands, the second complete, immediately before the cord, the last narrow, straight, extending from cell R_2 through M_3; cell 1st M_2 closed. Abdomen blue-black, the hypopygium and genital segment rich orange-fulvous.

Hab.—New South Wales.

Holotype, ♂, Dorrigo, altitude 2,000 feet, January, 1922 (*W. Heron*); *Allotopotype*, ♀.

TRENTEPOHLIA (MONGOMA) AUSTRALASIAE Skuse.

1889. *Trentepohlia australasiae,* Skuse, Proc. Linn. Soc. N.S.W., (2), iv., 834-835.

Queensland: Kuranda (F. P. Dodd), Coll. South Australian Museum; Gordonvale (J. F. Illingworth), bred from cage containing cane plants, Alexander Coll.

CONOSIA IRRORATA (Wiedemann).

1828. *Limnobia irrorata,* Wiedemann, Aussereur. Zweifl. Ins., i., 574.

Queensland: Meringa, November 14, 1920 (J. F. Illingworth), Darwin (G. F. Hill), Townsville (G. F. Hill), Alexander Coll.; South Australia: Adelaide (Barringer), Coll. South Australian Museum.

EPIPHRAGMA HARDYI, n.sp.

General colouration brownish-yellow, the mesonotum marked with dark brown; pleura largely dark brown; femora dark brown with a postmedial yellow ring; tibiae yellow with three black rings; wings light yellow, the ground-colour almost concealed by a heavy pattern of brown spots and dots.

Sex?—Wing, 9.5 mm.

Rostrum and palpi dark brown. Antennae with the scapal segments brown; flagellum broken; basal scapal segment very long. Head with a greyish-yellow pollen.

Mesonotal praescutum obscure brownish-yellow, handsomely patterned with dark brown; a conspicuous median stripe that is paler anteriorly, broadening out and becoming darker behind; this stripe is split by a capillary, darker brown vitta, on either side of which, before the suture, is a pale linear streak of the ground-colour; sublateral stripes small, barely attaining the suture; lateral margin with a large, circular, pale brown spot that is margined with darker brown; scutum with the median area dark brown, the lobes obscure brownish-yellow with dark brown centres; lateral margins of the scutal lobes dark brown; scutellum pale yellowish-brown, darker basally; postnotum with the median

sclerite obscure yellowish-brown with a ⊥-shaped brown mark, the cross-bar being near midlength of the sclerite; lateral lobes of postnotum unmarked. Pleura dark brown with a narrow and rather indistinct, pale brown, ventral, longitudinal stripe. Halteres brown, the knobs darker brown. Legs with the fore coxae dark brown, only the base pale; mid- and hind-coxae light yellow, the extreme bases abruptly dark brown; trochanters light yellow; femora dark brown, paler basally; a narrow post-medial yellow ring; immediately before the tip on outer face a small, circular, yellow spot; tibiae yellow with three black rings, one subbasal, one medial and one apical, these black areas approximately equal in extent to the yellow interspaces; on one of the legs which had become detached the outer yellow ring is obliterated; tarsi dark brown. Wings light yellow, the ground-colour almost obliterated by a pattern of dark brown spots and dots that are confluent or nearly so over most of the surface, restricting the ground-colour to abundant tiny spaces over the entire disc; a series of larger areas at ends of veins R_1, R_2 and R_3; costal cell yellow with about eight brown spots that are about as extensive as the interspaces; similar large yellow blotches between the brown areas at ends of the radial veins; an ill-defined pale area in cell R immediately before the cord; veins conforming in colour to the areas traversed; costal fringe inconspicuous. Venation: Besides the supernumerary cross-vein in cell C, there are faint remnants of still other spurs in the dark spots; Sc_2 longer than Sc_1; Rs long, strongly arcuated at origin; R_{2+3} short, about one-half longer than *r-m*; *r* almost obliterated by atrophy, about twice its length from tip of R_1; inner ends of cells R_3, R_5 and 1st M_2 in alignment; petiole of cell M_1 short, about twice R_{2+3}; cell 1st M_2 long and narrow, widened distally; basal deflection of Cu_1 near midlength; arcular crossvein distinct.

Abdomen with the basal tergite light brown, dark brown laterally; second tergite dark brown; remainder of abdomen broken; basal sternites pale brownish-yellow.

Hab.—South Queensland.

Holotype, Sex?, Queensland National Park, Macpherson Range, altitude 3,000 feet, February 27, 1921 (G. H. Hardy).

This interesting fly is named in honour of the collector, Mr. G. H. Hardy.

GYNOPLISTIA SUBIMMACULATA, n.sp.

General colouration shiny black; antennae 18-segmented; pleura and coxae grey; femora yellow, the tips dark brown; wings subhyaline, almost immaculate; abdomen reddish-brown, the hypopygium and basal tergite dark.

♂. Length, 9.2 mm.; wing, 8.5 mm.

Rostrum and palpi dark brown, the former with conspicuous yellow setae. Antennae 18-segmented, the formula being 2+2+10+4, dark brownish black throughout; pectinations of moderate length. Head shiny coal black.

Mesonotum shiny black with greenish tints, the four usual stripes transversely wrinkled; interspaces with yellow setae. Pleura almost entirely covered with a microscopic appressed grey pubescence that appears like a heavy bloom, the lateral sclerites of the postnotum abruptly glabrous. Halteres pale brown, the knobs a little darker. Legs with the coxae concolorous with the pleura; trochanters dark brown; femora yellow, the tips conspicuously but rather narrowly dark brown; tibiae brownish-yellow, passing into brown at the tips; tarsi brown. Wings subhyaline, cell Sc darker; stigma small, brown, sending a small seam across the fork of Rs; a tiny brown seam at origin of Rs; veins dark brown; wing-base yellow. Venation: *r-m* very short, encroached upon by the

long deflection of R_{4+5}; cell M_1 tending to become evanescent, lacking in the left wing of the type; basal deflection of Cu_1 a little more than one-half its length beyond the fork of M.

Abdomen with the first tergite shiny black; remainder of the abdomen deep reddish-brown, the hypopygium darker.

Hab.—Victoria.

Holotype, ♂, Ararat (G. F. Hill).

STIBADOCERELLA AUSTRALIENSIS, n.sp.

General colouration pale brown; pleura yellow with a transverse dark brown girdle on mesepisternum; terminal tarsal segments white; wings greyish-yellow; macrotrichiae in distal end of cell R_5; *r* present, without macrotrichiae; cell 1st M_2 open by the atrophy of the outer deflection of M_3; abdomen bicoloured.

♂. Length, 9.6 mm.; wing, 8 mm.; antenna about 12 mm.

Rostrum and palpi pale. Antennae of the male very long, the small scapal segments yellow, the flagellum dark brown, except the basal three-quarters of the first segment which is obscure brownish-yellow. Head brown.

Pronotum pale whitish-yellow. Mesonotum dark brown, the three usual praescutal stripes a little paler; lateral margins of median sclerite of postnotum a little more darkened. Propleura light yellow. Mesopleura yellow, the sternum and mesepisternum dark brown, giving the pleura the appearance of being transversely girdled; mid-ventral area of sternum pale. Halteres very long, brown. Legs with the coxae and trochanters yellow; femora dark brown, paler basally; remainder of legs dark brown, the tips of the posterior metatarsi and the remaining tarsal segments snowy-white; most of the other legs are detached but in what would seem to be the fore and middle legs all the metatarsi and the basal half of tarsal segment two are darkened. Wings with a uniform greyish-yellow tinge; veins dark brown. Venation: Sc ending about opposite six-sevenths the length of Rs, both Sc_1 and Sc_2 subobsolete; Rs elongate, gently arcuated at origin; tip of R_1 entirely atrophied, the apparent *r* (which is presumably the free base of R_2) is preserved, but entirely without macrotrichiae; petiole of cell R_3 short, less than the basal deflection of M_{1+2}; *r-m* very long, one-half longer than the basal deflection of Cu_1; cell 1st M_2 open by the atrophy of the outer deflection of M_3; basal deflection of Cu_1 about two-thirds its length beyond the fork of M; a row of macrotrichiae in the distal third of cell R_5; a few macrotrichiae in the outer end of cell M_2.

Abdomen bicoloured, dark brown, the apices of the basal segments broadly paler; on the subterminal segments the colouration is uniformly dark brown. Hypopygium dark brown.

Hab.—New South Wales.

Holotype, ♂, Narrabeen, December 3, 1921 (G. H. Hardy).

MEGISTOCERA FUSCANA (Wiedemann).

1821. *Nematocera fuscana*, Wiedemann, Dipt. Exot., i., 29.

Queensland: Gordonvale, October, 1920 (J. F. Illingworth), Alexander Coll.

This conspicuous genus of crane-flies had not hitherto been recorded from Australia.

PLATYPHASIA REGINA, n.sp.

Legs brownish-yellow, the tips of the femora and tibiae narrowly blackened; wings with R_{2+3} and Rs subequal; *r-m* present or obliterated by the fusion of R_{4+5} on M_{1+2}; cell M_1 usually sessile.

♂. Length, 20—26 mm.; wing, 21—23.5 mm. ♀. Length, 35 mm.; wing, 25 mm.

Frontal prolongation of the head light brown, darker apically above; palpi dark brownish-black. Antennae black, the second segment more reddish; pectinations of female antennae shorter than those of male. Head black, the orbital region light brown, especially behind; vertex anteriorly more or less pruinose.

Praescutum dark velvety black with four greyish-brown stripes that limit the ground-colour to the lateral margins of the sclerite and the anterior ends of the interspaces, the latter behind more yellowish; humeral region restrictedly pale; remainder of mesonotum grey or yellowish-grey in the female, the scutellum blackened. Pleura grey, conspicuously striped longitudinally with silvery white and brown; the broad silvery stripe includes the mesepisternum, mesepimeron and lateral sclerites of postnotum. Halteres dark brown. Legs with the coxae brownish-grey; trochanters brown; femora brownish-yellow, the tips narrowly blackened, these measuring less than 3 mm.; tibiae similar, the tips still more narrowly blackened; metatarsi dark brown, passing into black; remainder of tarsi black. Wings infuscated, the base and costal region broadly bright brown; a faint brown clouding along the cord, more evident along the first section of M_{3+4}; Cu seamed with brown; stigma small, pale brown. Venation: R_{2+3} subequal to Rs, sometimes a little longer or shorter; *r* at fork of R_{2+3}; *r-m* short, in some cases obliterated by the short fusion of R_{4+5} on M_{1+2}; cell M_1 varying from short-petiolate to rather broadly sessile; *m-cu* short to punctiform; cell 2nd A broad.

Abdomen with the first segment grey; second segment reddish basally, with three black stripes that are confluent posteriorly; segments three to five black with a faint reddish sublateral spot at base; remainder of tergites black, pruinose; hypopygium reddish; basal sternites reddish, the terminal segments grey pruinose. In the female, the tergites are conspicuously reddish, comparatively narrowly trivittate with black, the median stripe much broader than the lateral stripes. Ovipositor with the valves deep horn-colour.

Hab.—New South Wales.

Holotype, ♂, Dorrigo, altitude 2,000 feet, January, 1922 (W. Heron). *Allotopotype*, ♀. *Paratopotypes*, 2 ♂, 1 ♀.

LEPTOTARSUS MACQUARTI Guérin.

1838. *Leptotarsus macquarti*, Guérin, Voy. de la Coquille, Zool. ii., Dipt., p. 286, Pl. xx., fig. 1.

Victoria: Seaford (W. F. Hill), Tooradin, February 3, 1918 (G. F. Hill), near Melbourne (G. F. Hill), Alexander Coll.

LEPTOTARSUS SCUTELLARIS Skuse.

1890. *Leptotarsus scutellaris*, Skuse, Proc. Linn. Soc. N.S.W., (2), v., 107-108.

New South Wales: Blackheath, January, 1904 (R. Helms), Coll. Bishop Museum.

LEPTOTARSUS NIGRITHORAX (Macquart).

1850. *Tipula nigrithorax*, Macquart, Dipt. Exot., iv., 15, Pl. 1, fig. 5.

New South Wales: Mittagong (A. M. Lea), Coll. South Australian Museum.

HABROMASTIX PERGRANDIS, n.sp.

Size very large (wing of ♀, 23 mm.); general colouration dark brown; inner margin of eyes narrowly bordered with dull fulvous; wings darkened, narrowly

marked with cream-coloured dashes and dots; *m-cu* at two-thirds the length of cell 1st M_2; cell M_1 sessile.

♀. Length, 27 mm.; wing, 23 mm.

Frontal prolongation of the head long and slender, dark brownish-black. Antennae brownish testaceous. Head dark brown; a narrow but conspicuous dull fulvous border adjoining the inner margin of each eye.

Mesonotal praescutum brown with three broad, dark brown stripes that are only a little darker in colour than the disc; scutum and scutellum destroyed; postnotum posteriorly light brown, the posterior half of the lateral sclerite of postnotum dark brown. Propleura, mesepisternum and mesosternum dark brown; posterior sclerites of pleura brownish testaceous. Halteres elongate, dark brown, the base of the stem and the knobs indistinctly pale. Legs with the coxae dark brown, the outer faces of the fore and middle coxae each with a conspicuous pale spot, posterior coxae more uniformly darkened; trochanters brownish testaceous; legs stout; femora brown, all but the fore femora with an indistinct pale subterminal ring; tibiae and tarsi brown. Wings with a strong dusky tinge; cells C, Sc and the stigma darker brown; membrane narrowly variegated with cream-coloured markings as follows: two narrow V-shaped areas beginning in cell M, continued across cell Cu, the basal one continued into cell 2nd A, the distal one ending at vein 1st A or continued as a very narrow line across cell 1st A; small spots in base of cell M; in cell R before the cord; in base of cell R_2 beyond the stigma; in the bases of cells 2nd M_2 and M_3, and in the caudal distal angle of cell Cu_1 adjoining vein Cu_2; veins dark brown. Venation: R_3 one-half longer than R_{2+3}; cell 1st M_2 large, widened distally; *m-cu* at about two-thirds the length of cell 1st M_2, the basal section of M_{3+4} about twice the second section; cell M_1 sessile.

Abdominal tergites dark brown, the caudal margins very narrowly, the caudal lateral angles more broadly obscure yellow; sternites beyond the base more uniformly pale. Ovipositor with the elongate valves straight.

Hab.—South Queensland.

Holotype, ♀, Queensland National Park, Macpherson Range, altitude 3,000 feet, February 27, 1921 (G. H. Hardy).

HABROMASTIX HILLI, n.sp.

♂. Length, 12.5—13.5 mm.; wing, 13—13.5 mm.; antenna, about 7.5—9 mm.

Most closely allied to *H. cinerascens* Skuse, from which it differs as follows: Antennae much shorter, ending about opposite the base of the fifth abdominal segment, or about equal to three-fifths the length of the body. Mesonotal praescutum with three brown stripes, the median stripe sometimes split with pale only at the anterior end; postnotum darkened on the posterior third. Abdominal tergites with a broad dorso-median stripe, the caudal margins of the segments broadly grey, the lateral margins narrowly ochreous; basal tergite ochreous at base.

Hab.—Victoria.

Holotype, ♂, Ararat (G. F. Hill). *Paratopotypes*, 2 ♂; *paratype*, ♂, Eltham, April 17, 1920 (L. B. Thorn).

HABROMASTIX HILLI SUBLATERALIS, n.subsp.

♀. Length about 13 mm.; wing, 13 mm.

Differs from typical *hilli* as follows:

General colouration more ochreous, only the pleura grey. Wings with the pale central stripe almost obliterated, represented by two indistinct subhyaline areas in cell M, and a third in cell 1st M_2 and the base of R_5; Rs much longer, one-half longer than R_{2+3}; cell M_1 long-petiolate, the petiole about twice *m*; *m-cu* obliterated by fusion. Abdomen with two sublateral brown stripes, indistinctly separated by a line of the ground colour. Valves of the ovipositor acicular.

Hab.—Victoria.

Holotype, ♀, Ringwood, April 6, 1918 (G. F. Hill).

MACROMASTIX COSTALIS (Swederus).

1787. *Tipula costalis*, Swederus, Act. Holm., p. 286.

Victoria: Seaford, June, 1919 (W. F. Hill), Alexander Coll.; Tasmania: Wilmot (Carter and Lea), Devonport (A. M. Lea), Hobart (A. M. Lea), Coll. South Australian Museum.

MACROMASTIX MASTERSI Skuse.

1890. *Macromastix mastersi*, Skuse, Proc. Linn. Soc. N.S.W., (2), v., 133-134.

Victoria: Ararat (G. F. Hill), Alexander Coll.

MACROMASTIX CONSTRICTA Skuse.

1890. *Macromastix constricta*, Skuse, Proc. Linn. Soc. N.S.W., (2), v., 134-135.

New South Wales: Sydney, September, 1904 (R. Helms), Coll. Bishop Museum.

MACROMASTIX HUMILIS Skuse.

1890. *Macromastix humilis*, Skuse, Proc. Linn. Soc. N.S.W., (2), v., 136-137.

Victoria: Moonsons, October 19, 1918 (G. F. Hill), Lorne, October 24, 1918 (F. E. Wilson), Alexander Coll.

TIPULA DICLAVA, n.sp.

Allied to *T. leptoneura* Alexander; fusion of veins M_3 and Cu_1 extensive; cell 2nd A broad; male hypopygium with two clavate appendages extending caudad.

♂. Length, 21 mm.; wing, 24.5 mm.

Frontal prolongation of the head buffy above, darker laterally, the elongate nasus brown; palpi light brown, the terminal segment dark brown. Antennae short, the scape ochraceous; flagellum bicoloured, the base of each segment black, the remainder of each segment paler. Head brown, becoming more buffy anteriorly.

Mesonotum greyish-brown with three darker brown stripes that are subconfluent; remainder of the mesonotum brown, the median area of the scutum and scutellum indistinctly and narrowly paler. Pleura pale brown, sparsely pruinescent. Halteres brown, the base of the stem narrowly yellowish. Legs with the coxae pale, whitish pruinescent; trochanters yellow; remainder of the legs broken. Wings faintly tinged with brown, the costal region yellowish; stigma small, dark brown; veins brown. Venation: As in *T. leptoneura* and allies, in the small, pointed cell R_2; Rs short, about two-thirds R_{2+3}; cell

R_2 very small; cell 1st M_2 large, the inner end long-pointed; *m* and petiole of cell M_1 subequal; fusion of veins M_3 and Cu_1 extensive, longer than *r-m*; cell 2nd A broad.

Abdominal tergites reddish-brown, the second segment with a narrow median and lateral black stripes; fifth and sixth tergites largely brownish-black; an indistinct dorso-median brown stripe on the intermediate tergites; tergite seven chestnut-brown; tergite eight buffy; basal sternites reddish, the terminal segments darker. Male hypopygium with the ninth tergite terminating in two approximated flattened lobes that are feebly divergent, these lobes separated by a V-shaped notch; ninth tergite distinct from the pleurite. What seem to represent the modified outer pleural appendages consist of conspicuous clavate lobes directed caudad, the apex of each dilated and feebly bifid (these appendages are very narrowly attached and those of the type were accidentally broken off, mounted separately in balsam). Eighth sternite unarmed.

Hab.—Northern Australia.

Holotype, ♂, without exact data, received from Mr. G. F. Hill.