

A REVISION OF THE *CULICIDÆ* IN THE MACLEAY MUSEUM, SYDNEY.

BY FRANK H. TAYLOR, F.E.S., ENTOMOLOGIST TO THE AUSTRALIAN INSTITUTE OF TROPICAL MEDICINE.

(Plate xxx.)

The following paper contains a description of Skuse's types in the above Museum, at the Sydney University.

It is proposed to refer *Anopheles stigmaticus* and *A. atratipes* to the genus *Pyretophorus*; *Culex flavifrons* and *C. vittiger* to *Culicada*, and to give a new name to *Grabhamia flavifrons* of Theobald; *Culex linealis* is placed in the genus *Culicelsa*. *Culex atripes* has been transferred to the genus *Scutomyia*, and shown to be distinct from *Stegomyia punctolateralis* Theob.

I wish to express my indebtedness to Professors W. A. Haswell and T. W. E. David, for their kindness in allowing me access to the collection, when recently in Sydney. I have also to thank Mr. Shewan, Acting Curator, for many courtesies.

PYRETOPHORUS STIGMATICUS (Skuse).

Anopheles stigmaticus Skuse, Proc. Linn. Soc. N. S. Wales, (2), iii., p.1758, 1888; Theobald, Mon. Culicid., i., p.207, 1901.

♀. Head yellowish-brown, clothed with yellowish, upright, forked scales, and brown hairs, with numerous yellowish ones overhanging the eyes from the centre; antennæ brown, basal lobe dusky brown, second segment pale at the base; palpi brown, clothed with dusky scales, shorter than the proboscis, which is brown.

Thorax brown, with three dusky patches, one anterior and two posterior, clothed with scanty, narrow-curved, golden-yellow scales; scutellum brown; metanotum dusky-brown; pleuræ blackish; prothoracic lobes prominent.

Legs brown, clothed with brown scales, changing to dusky-brown on the tarsi.

Wings with the costa black; veins clothed with light brown scales; fringe brown; first fork-cell longer and narrower than the second fork-cell, base of the former nearer the base of the wing than that of the latter; the stem of the first fork-cell about the length of its cell, stem of the second longer than the cell; super-numerary and posterior cross-veins parallel, the latter scarcely nearer the apex of the wing.

Abdomen dark brown, sparsely covered with golden hairs; venter brown.

♂. Very similar to female; antennæ yellowish-brown, shorter than proboscis, plumes brown, and very dense; palpi brown, shorter than proboscis, last segment spatulate, and clothed with short brown hairs; proboscis brown and slender; wings as in ♀; mid cross-vein slightly nearer the apex of the wing than the posterior cross-vein. Length, 4.5 to 5 mm.

Hab.—Blue Mountains, N. S. Wales.

Obs.—A very distinct species, belonging to the genus *Pyretophorus*, easily distinguished from other Australian Anophelines.

PYRETOPHORUS ATRATIPES (Skuse).

Anopheles atratipes Skuse, Proc. Linn. Soc. N. S. Wales, (2), iii., p.1755, 1888; Theobald, Mon. Culicid., i., p.208, 1901; v., p.43, 1910.

♀. Head dusky brown, clothed with white narrow-curves, and upright forked scales, border-bristles dark brown, with numerous long, white hairs overhanging the eyes from the centre; eyes black; antennæ brown, basal lobe dusky, second segment about twice the length of third; palpi dark brown, slightly shorter than the proboscis, apex creamy-yellow; proboscis black, fairly long, slender.

Thorax brown, with a moderately large, dusky patch on the anterior end, and two small ones towards the lateral edges in front of the wing-roots, and one, median, immediately in front of the scutellum, with three rows of narrow-curved, hair-like scales, and a few scattered dusky hairs, lateral border-bristles white,

densest above the wing-roots; scutellum brown, with a few narrow-curved, white scales; metanotum dark brown; pleuræ dark brown.

Abdomen dark brown, clothed with golden-yellow hairs.

Wings with the costa, subcostal, and first longitudinal veins dark brown-scaled, remaining veins brown-scaled; there is a dark spot at the base of the third longitudinal vein, and at the bases of the branches of the fifth longitudinal vein, sixth long vein white-scaled, with the apical third brown-scaled; first fork-cell longer and narrower than the second, base of the former nearer the base of the wing than that of the latter; stem of the first fork-cell about as long as its cell, stem of the second longer than the cell; fringe at the apex of wing white, remainder brown; halteres brown.

Legs : coxæ and trochanters brown; femora brown, fore femora slightly club-shaped at the base, pale at the apex; tibiæ dark brown; tarsi dusky. Length, 6.5 mm.

Hab.—Berowra, N.S.W.

NYSSORHYNCHUS ANNULIPES Walker.

Walker, Ins. Saund., i., p.433, 1850; *Anopheles musivus* Skuse, Proc. Linn. Soc. N. S. Wales, (2), iii., p.1754, 1888; *A. mastersi* Skuse, *ibid.*, p.1757; Theobald, Mon. Culicid., i., pp.164, 165, 1901.

This species was redescribed by Theobald, in his Monograph, rendering it unnecessary for me to do so.

A critical examination of the type of *A. mastersi*, has proved, beyond doubt, that it is the same as Skuse's *A. musivus*, in all essentials. At most, it can be regarded only as a variety of *N. annulipes*, which is somewhat given to variation. It is possible to breed the two forms from the same batch of larvæ.

TOXORHYNCHITES SPECIOSA (Skuse).

Megarrhina speciosa Skuse, Proc. Linn. Soc. N. S. Wales, (2), iii., p.1722, 1888; Theobald, Mon. Culicid., i., p.228, 1901; Bancroft, Ann. Queensland Mus., No.8, p.16, 1908; Taylor, Ann. Rept. Aust. Inst. Trop. Med., p.51 (1911), 1913.

This species has been fully described in the above publications. The type agrees, in all details, with that published by me.

MUCIDUS ALTERNANS Westwood.

Westwood, Ann. Soc. Ent. Fr., iv., p.681, and Trans. Ent. Soc. Lond., iii., p.384; *Culex hispidiosus* Skuse, Proc. Linn. Soc. N. S. Wales, (2), iii., p.1726, 1888; Theobald, Mon. Culicid., i., p.269, 1901.

This species has already been fully described by Theobald, in his Monograph, rendering further description unnecessary.

SCUTOMYIA ATRIPES (Skuse).

Culex atripes Skuse, Proc. Linn. Soc. N. S. Wales, (2), iii., p.1750, 1888; Theobald, Mon. Culicid., ii., pp.58, 256, 1901; *Theobaldia atripes* Neveu-Lemaire (*nec* Skuse), Arch. Parasitologie, vi., p.615, 1902; *Mimeteomyia atripes* (Skuse) Cleland, Second Rept Gov. Bureau Microbiology, Sydney, p.144, 1912.

♀. Head clothed with flat, dusky scales with violet reflections, and a small patch of narrow-curved ones in the mid-region, with a patch of flat, creamy, lateral ones; border-bristles brown; antennæ black, verticillate hairs black, clothed with short whitish pile; palpi black; clypeus black; proboscis black; eyes violet-black.

Thorax clothed with thin, brown, narrow-curved scales; prothoracic lobes prominent, clothed with large, dense, flat, white scales and brown hairs; lateral border-bristles brown, densest above the wing-roots; scutellum brown, mid-lobe clothed with large, dusky, loosely applied, flat scales, lateral lobes with paler ones; pleuræ black, densely clothed with white, flat scales.

Abdomen black, scaled with white, lateral spots on segments 6 to 8; venter dark brown, clothed with small, white scales.

Wings with the costa, subcostal, and first long veins clothed with dusky scales, remaining veins clothed with brown scales, the lateral ones linear, the median small and flat; first fork-cell longer and narrower than the second, its base nearer the base of the wing than that of the latter; stem of the first fork-cell about one-third the length of the cell, that of the second about two-thirds as long as the cell; posterior cross-vein longer than, and

about thrice its own length from the mid cross-vein; fringe brown. Halteres with the stems yellowish, knobs dusky.

Legs [the fore and mid wanting], hind dusky, the tarsi in some lights with a coppery tinge; ungues small, equal and simple.

♂. Similar to ♀. Palpi broken; antennæ with the nodes dark, plumes brown, about two-thirds the length of the proboscis. Wings as in ♀, but with the post cross-vein only about twice its length distant from the mid cross-vein.

Legs steel-black; femora white beneath, with a white apical spot above; apical tarsus of the fore-legs pale; fore and mid ungues unequal, the larger with a tooth, hind small, equal and simple. Length, 4 mm.

Hab.—Sydney, Blue Mountains, N.S.W.

Obs.—Edwards places this species in the genus *Mimeteomyia*, and Neveu-Lemaire in the genus *Theobaldia*; it clearly belongs to the genus *Scutomyia*; their determinations were based on a misconception of the species. Edwards also says that *Stegomyia punctolateralis* Theob., is a synonym of the above. They are quite distinct; a comparison of the two species shows that, *inter alia*, the abdominal spots and the ungues of the male differ considerably.

GRABHAMIA THEOBALDI, nom.nov.

Grabhamia flavifrons Theobald (*nec* Skuse), Mon. Culicid, iv., p.304, 1907.

Specimens of the above were sent to Theobald by Dr. T. L. Bancroft, from Southern Queensland. Theobald thought they were Skuse's species, on account of the yellowish appearance of the wings, mentioned by Skuse. A specimen in the Institute collection from Brisbane, when compared with the type, proved that they were distinct species, belonging to two different genera.

CULICADA FLAVIFRONS (Skuse).

Culex flavifrons Skuse (*nec* Theobald), Proc. Linn. Soc. N. S. Wales, (2), iii., p.1735, 1888; Theobald, Mon. Culicid., i., p.421, 1901; iv., p.304, 1907.

♂. Head dark brown, clothed with creamy-yellow, narrow-curved, and upright forked scales, with flat, creamy yellow ones on the sides; palpi four-jointed, brown, slightly longer than the proboscis, clothed with mixed brown and creamy scales, second segment the longest, with its apex and the last two segments densely clothed with yellowish-brown hairs; antennæ light brown, nodes dark brown, plumes light brown, last two segments long, densely covered with short pile; proboscis long, slender, brown; eyes black and silvery.

Thorax brown, clothed with golden-yellow, narrow-curved scales; prothoracic lobes prominent, brown, clothed with flat scales and golden hairs; prealar bristles yellow; scutellum brown, clothed with narrow-curved, light golden-yellow scales, posterior border-bristles yellow; pleuræ brown, clothed with patches of white, flat scales, and golden bristles.

Abdomen brown [denuded].

Legs brown; coxæ and trochanters dark brown; femora pale beneath; tibiæ and tarsi with white basal banding; ungues of forelegs very unequal, [mid wanting], hind equal.

Wings with the costa dark brown, vein-scales paler, with a few, scattered, yellow scales; first fork-cell longer and narrower than the second, the base of the latter nearer the base of the wing than that of the former; stem of the first fork-cell nearly the length of its cell; stem of the second longer than its cell; posterior cross-vein shorter than, and scarcely its own length distant from, the mid cross-vein; fringe pale. Halteres with the stems pale brown, knobs dark brown. Length, 6 mm.

♀. Very similar to ♂. Abdomen clothed with dark brown scales, with creamy basal banding, penultimate segment clothed with creamy scales. Wings with the stem of the first fork-cell about two-thirds the length of its cell, stem of the second not quite the length of the cell. Legs similar to ♂; ungues wanting. Length, 5 mm.

Hab.—Blue Mountains, N.S.W.; Brisbane, Queensland.

Obs.—The species described by Theobald as *Grabhamia fluvifrons* Skuse, is quite distinct from the true *C. fluvifrons* Skuse,

the latter being much more robust, and having entirely different squamose characters on the wings, besides differing in numerous other details. I propose to rename the former, *Grabhamia theobaldi* (*antea*, p.751).

CULICADA VITTIGER (Skuse).

(Plate xxx., figs. 1-2.)

Culex vittiger Skuse, Proc. Linn. Soc. N. S. Wales, (2), iii., p.1728, 1888; Theobald, Mon. Culicid., i., p.387, 1901; Giles, Handbk. Gnats, 2nd Ed., p.419, 1902.

♀ Head brown, clothed with long, loosely applied, creamy-white, narrow-curved scales, and pale yellowish upright forked ones, with creamy-white flat ones at the sides, a row of brown border-bristles round the eyes, with a few pale ones overhanging the eyes from the centre; eyes black, with silvery patches; antennæ brown, verticillate hairs dark brown, pubescence white, second segment yellowish-brown, basal lobes darker; palpi long, covered with ochraceous and dark brown scales, clothed beneath with ochraceous scales, except the apex, which is almost entirely clothed with dark scales.

Thorax deep blackish-brown, paler towards the edges and posteriorly, with four broad lines of brownly-black, narrow-curved scales, the two centre ones the whole length of the thorax, the lateral ones not extending the full length of the thorax, the rest of the thorax clothed with creamy-white, narrow-curved scales and golden bristles, which are denser above the roots of the wings; scutellum brown, clothed with greyish-white, narrow-curved scales, mid-lobe with sixteen, golden border-bristles, seven to the lateral lobes; metanotum dark brown; pleuræ with the ground-colour mottled light and dark brown, and clothed with numerous, flat, white scales.

Abdomen brown, densely clothed with pale, creamy-white scales, segments 2 to 4 with the apical half brown-scaled, first segment clothed with a patch of white scales and pale creamy hairs; posterior border-bristles creamy; venter yellowish-brown, clothed with white scales.

Wings with the costa brown-scaled, with a few scattered white ones; subcostal and first longitudinal veins with scattered creamy-white scales, those on the latter basal; first fork-cell longer and narrower than the second, base of the latter nearer the base of the wing than that of the former; stem of the first fork-cell about two-thirds the length of the cell, stem of the second about as long as its cell; posterior cross-vein shorter than the mid, and not quite its own length distant from it. Halteres light brown.

Legs: coxæ and trochanters brown; femora light brown, brown-scaled above, white beneath, with a dark brown apical band; tibiæ white-scaled, with a brown, dorsal, longitudinal line, and a narrow, apical, brown band; first tarsals white, with deep brown apical banding, second to fourth brown-scaled, with a decreasing, white, basal banding, fifth brown; unguis stout, each with a small tooth. Length, 7.2 mm.

Hab. — Gosford (type), N.S.W.; Bowen and Wide Bay District, Queensland.

♂. Head as in ♀; antennæ densely plumose, the latter brown, nodes brown, internodes pale yellowish, basal lobes reddish-brown, penultimate and apical segments blackish; palpi pale yellowish-brown, the middle third of the first segment creamy-yellow, the apex of the first, second, and third segments with brown hairs; proboscis light yellow, with apical half brown.

Thorax and abdomen as in ♀.

Legs as in ♀; fore-legs with the fourth tarsals very short and broad, fifth with a large spur on the ventral surface at the base; unguis of the fore-legs unequal, uniserrate; unguis of the mid-legs very unequal, the larger with a large, blunt notch towards the base, the smaller with a moderately large tooth in the middle, hind-unguis equal, small, nearly straight.

Wings with the first fork-cell longer and narrower than the second, the base of the latter nearer the base of the wing; stem of the first fork-cell scarcely the length of its cell; posterior cross-vein shorter than the mid cross-vein, and slightly more than its own length from the latter. Length, 7.5 mm.

Hab. — Townsville, 9/3/13 (F. H. Taylor).

Obs.— This is the first time that the male has been met with, when a single specimen was taken, together with several females, amongst grass. Giles states that the female palpi are *distinctly* five-jointed, whereas they are only four-jointed. He also gives a very brief diagnosis of a male which shows some discrepancies when compared with the above description. He was probably dealing with another species.

CULICELSA LINEALIS (Skuse).

Culex linealis Skuse, Proc. Linn. Soc. N. S. Wales, (2), iii., p.1747, 1888; Theobald, Mon. Culicid., ii., p.165, 1901.

♀. Head black, clothed with creamy-white, narrow-curved, and black, upright, forked scales, with flat, creamy-white ones on the sides; eyes violet-black and silver; palpi covered with dense, dark brown scales, and numerous brown bristles, the base with a few pale scales; proboscis dark brown.

Thorax dark brown, clothed with dark brown, narrow-curved scales, with four rows and the lateral borders of creamy-white ones; scutellum dark brown, clothed with creamy-white, narrow-curved scales; pleuræ blackish-brown, clothed with patches of white, flat scales.

Abdomen [damaged] clothed with black scales, banding not distinguishable; venter pale-scaled.

Legs dark brown; femora and tibiæ pale beneath; ungues equal and simple.

Wings with the veins clothed with brown scales; costa dark brown; first fork-cell longer and narrower than the second, its stem about one-half the length of its cell, stem of the second about two-thirds the length of the cell; base of the second fork-cell nearer the base of the wing than that of the first fork-cell.

♂. Head similar to ♀; palpi longer than the proboscis, dark brown, penultimate and apical segments brown, clothed with fairly long, brown hairs; antennæ pale brown, clothed with brown plumes, last two segments brown, moderately long.

Thorax similar to ♀; scutellum pale brown, clothed with narrow-curved, pale, creamy-white scales, mid-lobe with four, pale golden, posterior border-bristles, lateral lobes with three.

Abdomen clothed with dusky-brown scales, and white basal banding on segments 2 to 7, first segment clothed with brown scales, and long, pale brown hairs, eighth segment with a median patch of white scales; venter white-scaled, with narrow, brown, apical banding. Legs as in ♀; unguis wanting. Length, ♀ 5.5 mm.; ♂ 5 mm.

Hab.—Blue Mountains (type), and Wheeney Creek, N.S.W.

Obs.—A very distinct and handsome species. The male, though undescribed by Skuse, undoubtedly belongs to this species.

CULICELSA VIGILAX (Skuse).

Culex vigilax Skuse, Proc. Linn. Soc. N. S. Wales, (2), iii., p.1731, 1888; *Culex marinus* Theobald, Mon. Culicid., i., pp.395, 396, 1901.

This species has been redescribed by Theobald, whose description agrees with the type in all details. The extent of the pale creamy scales, on the proboscis, is very variable. I have seen specimens in which the proboscis is almost entirely clothed with them, while, in others, they are all but absent.

CULICELSA ANNULIROSTRIS (Skuse).

Culex annulirostris Skuse, Proc. Linn. Soc. N. S. Wales (2), iii., p.1737, 1888; Theobald, Mon. Culicid., i., pp.365, 367, 1901; iii., p.162, 1903.

This species has been redescribed by Theobald, rendering further details unnecessary.

CULEX OCCIDENTALIS Skuse.

Proc. Linn. Soc. N. S. Wales, (2), iii., 1729, 1888; Theobald, Mon. Culicid., i., p.419, 1901; iii., p.179, 1903.

♀. Head dark brown, clothed with creamy-white, narrow-curved, and light brown, upright, forked scales in the centre, and reddish-brown, narrow-curved ones bordering the eyes, sides with alternate patches of white and brown, flat scales; border-bristles brown, with a few paler ones overhanging the eyes from the centre; eyes black and silvery; clypeus brown; palpi black-scaled,

with a few, scattered, dark hairs, and a small patch of white scales on the apex of the penultimate segment, apex of the last segment white-scaled; antennæ dark brown, pubescence greyish, verticillate hairs brown, basal lobes brown, basal half of second segment creamy-yellow; proboscis dark brown at the base.

Thorax reddish-brown, clothed with pale creamy, narrow-curved scales, and bronzy brown ones; scutellum brown, clothed with pale, narrow-curved scales; prothoracic lobes fairly prominent, brown, clothed with pale, narrow-curved scales and yellowish hairs; metanotum brown; pleuræ brown, clothed with patches of creamy-white, flat scales.

Abdomen brown, clothed with brown scales, segments with white basal banding; venter white-scaled, with narrow, apical, brown banding.

Wings with the costa black, veins clothed with dark brown scales; first fork-cell longer and narrower than the second, their bases about level; stem of the first fork-cell about one-half the length of the cell, stem of the second about two-thirds the length of the cell; posterior cross-vein shorter than, and a little more than its own length distant from it; second incrossation well marked. Halteres creamy, with black knobs.

Legs clothed with dark brown scales; first three tarsals of the fore and mid legs with white basal banding; [hind legs damaged]; fore and mid ungues equal, stout, each with a small tooth. Length, 5.5 mm.

Hab.—King George's Sound, W.A. (type unique).

Obs.—This is a very distinct species, not to be confused with other Australian species. Dr. Cleland kindly presented specimens to the Institute collection, which he informed me had been so named, for him, by Mr. F. W. Edwards; and which, on comparison with the type, proved to be quite distinct, and corresponded with Strickland's description of *Culicada vandema*. The two species are not to be confused, as the latter is much more robust, and has a large, brown spot on the wings, which the former lacks, besides other differences.

CULEX PROCAX Skuse.

Proc. Linn. Soc. N. S. Wales, (2), iii., p.1742, 1888; Theobald, Mon. Culicid., i., p.415, 1901.

♀. Head brown, clothed with white, narrow-curved scales, and upright, forked ones, with flat, white ones on the sides; proboscis dark brown, pale at the base; palpi brown; antennæ brown, verticillate hairs deep brown, pubescence pale.

Thorax brown, with a median, dark stripe running the full length of the thorax, clothed with pale yellowish-brown and dark, narrow-curved scales; scutellum brown, clothed with pale scales; prothoracic lobes brown, clothed with brownish, narrow-curved scales and hairs; pleuræ brown, with patches of white, flat scales.

Abdomen deep brown, clothed with dark brown scales, segments with white basal banding, with traces of white, lateral spots, border-bristles yellow; venter brown, apparently clothed with white scales.

Wings with the costa black, vein-scales brown, first fork-cell longer and narrower than the second, its base nearer the base of the wing than that of the latter; stem of the first fork-cell about two-thirds the length of its cell, stem of the second about as long as the cell; posterior cross-vein shorter than, and about its own length distant from the mid cross-vein. Halteres creamy-white.

Legs [in the type, the fore and mid are wanting], brown-scaled; femora pale beneath, knee-spots white; first three tarsals of fore and midlegs with white basal banding, fourth and fifth unbanded, all the tarsi of the hind-legs with white, basal banding; ungues equal and simple. Length, 4 mm.

Hab.—Gosford (type), Clifton, Illawarra District, N.S.W.

Obs.—The type is in very poor condition. The head and abdomen are almost denuded, and the fore and mid legs are wanting.

CULEX SAGAX Skuse.

Proc. Linn. Soc. N. S. Wales, (2), iii., p.1744, 1888; Theobald, Mon. Culicid., ii., p.87, 1901; iii., p.205, 1903.

♀. Head brown, clothed with narrow-curved, pale golden scales, and yellowish and black, upright, forked ones, with white, flat

ones on the sides; antennæ black; proboscis black; clypeus black; palpi black-scaled, with a few pale ones at the apex.

Thorax dark brown, with brown and a few pale narrow-curved scales; scutellum clothed with pale narrow-curved scales; metanotum brown; pleuræ brown, clothed with patches of flat, white scales.

Abdomen black-scaled, with basal creamy banding to the segments; venter clothed with yellowish scales, with apparently darker median spots.

Legs deep brown, unbanded; femora pale beneath; unguis of fore and mid legs equal, and uniserrate, hind equal and simple.

Wings clothed with brown scales; first fork-cell longer and narrower than the second, its base nearer the base of the wing than that of the latter; stem of the first fork-cell about one-third the length of the cell, stem of the second about two-thirds the length of its cell; posterior cross-vein longer, and about its own length distant from the mid cross-vein. Halteres deep yellow. Length, 5.5 mm.

Hab.—Murrumbidgee District, N.S.W.

CULEX MACLEAYI Skuse.

Proc. Linn. Soc. N. S. Wales, (2), iii., p.1746, 1888; Theobald, Mon. Culicid., ii., p.162, 1901.

This is an abraded *C. fatigans* Wied. The thorax of the specimens is distinctly abraded. Large numbers of specimens have been examined, and, occasionally, forms have been found to correspond to Skuse's description, but, in each case, the thorax has been somewhat denuded. The name *C. macleayi* must, therefore, sink as a synonym of *C. fatigans* Wied.

CULEX sp., Skuse.

Proc. Linn. Soc. N. S. Wales, (2), iii., p.1748, 1888; Theobald, Mon. Culicid., ii., p.162, 1901; *Culex fatigans* Wied., var. *Skusi* Giles, Handbook Gnats, 2nd Ed., p.441, 1902.

Skuse thought that this was probably a variety of *C. ciliaris* Linn. An examination of his specimens, contained in the Macleay Museum, has proved, beyond doubt, that they are

abraded specimens of *C. fatigans* Wied., and consequently Giles' name must sink as a synonym of *C. fatigans* Wied.

ÆDEROMYIA VENUSTIPES (Skuse).

(Plate xxx, fig.3.)

Edes venustipes Skuse, Proc. Linn. Soc. N. S. Wales, (2), iii., p.1761, 1898; Theobald, Mon. Culicid., ii., p.223, 1901; v., pp.469, 477, 1910; Taylor, Bull. Northern Territory, No.i., p. 62, 1912; Ann. Rept. Aust. Inst. Trop. Med., p.59, (1911) 1913.

This species has been fully described by me, and specimens from Queensland, when compared with the type, were seen not to differ from it.

EXPLANATION OF PLATE XXX

Fig.1.—*Culicada vittiger* (Skuse) ♀; head.

Fig.2.—*Culicada vittiger* (Skuse) ♀; wing.

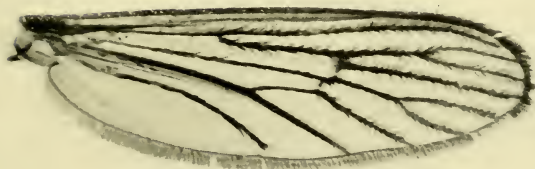
Fig.3.—*Edeomyia venustipes* (Skuse) ♀; wing.

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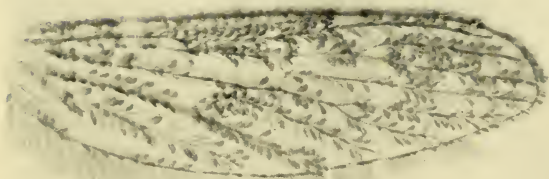


Figs. 1-2.
Culicada vittiger
(Skuse).

Fig. 3.
Edcomyia venustipes
(Skuse).



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