

CONTRIBUTIONS TO A KNOWLEDGE OF AUSTRALIAN *CULICIDÆ*. No i.

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(Plates xxxiv.-xxxvii.)

(From the Australian Institute of Tropical Medicine.)

The present paper contains descriptions of seven new species and one variety, besides additional records for several previously known species. The new species are distributed in the following genera: *Stegomyia* (one), *Aedimorphus* (one), *Culicada* (two), *Culex* (one), *Skusea* (one), and *Menolepis?* (one). The type-specimens have been deposited in the Institute collection.

*PYRETOPHORUS ATRATIPES* (Skuse).

Proc. Linn. Soc. N.S.Wales, (2), iii., p. 1755 (1888); Taylor, *l.c.*, xxxviii., p. 748 (1914).

Dr. J. B. Cleland has presented a specimen of this Anopheline to the Institute, which was taken by him on Milson Island, Hawkesbury, River, N.S.W.

*MYZORHYNCHUS BARBIROSTRIS* (v.d. Wulp).

Leyden Museum Notes, vi., p. 46 (1884); Theobald, Mon. Culicid., v., p. 50 (1910).

*Hab.*—Dilly, Portuguese Timor (H. Cupper-Mudd).

Numerous specimens of the above species have been received from Mr. Cupper-Mudd, in addition to specimens of another Anopheline, which appears to be *Nyssorhynchus annulipes* (Walker). The latter, however, were too damaged by mould to be determined with certainty.

*NYSSORHYNCHUS ANNULIPES* (Walker).

Ins. Saund., p. 433 (1850); Theobald, Mon. Culicid., i., p. 164 (1901); Taylor, Proc. Linn. Soc. N.S.Wales, xxxviii., p. 749 (1914).

*Hab.*—Overland Corner, S. Australia (Dr. Cleland); Yerranderie, Narromine, N.S.W., (Dr. Ferguson); Solomon Islands (W. W. Froggatt).

The specimens from the Solomon Islands are somewhat rubbed, but little doubt exists as to their correct identification.

ARMIGERES OBTURBANS (Walker).

(Pl. xxxiv., figs. 1, 2.)

Proc. Linn. Soc. Lond., iv., p. 91 (1860), *Culex*; Theobald, Mon. Culicid., i., p. 323 (1901), *Armigeres*; Blanchard, C.R. Soc. Biol., iii., p. 1046 (1901), *Desvoidya*; Theobald, Mon. Culicid., iii., p. 138 (1903), *Desvoidea*; Brunetti, Rec. Ind. Mus., iv., p. 440 (1912) *Blanchardiomyia*; Edwards, Bull. Ent. Research, iv., p. 224 (1913).

*Hab.*—Milne Bay, Kerema, Papua (Dr. Breinl).

MUCIDUS ALTERNANS (Westwood).

Ann. Soc. Ent. Fr., iv., p. 681 (1835); Theobald, Mon. Culicid., i., p. 269 (1901); Taylor, Ann. Report Aust. Inst. Trop. Med., p. 58, pl. xiii., figs. 9-10 (1911), 1913.

*Hab.*—Yarrawin, N.S.W. (W. W. Froggatt).

STEGOMYIA SCUTELLARIS (Walker).

(Pl. xxxiv., figs. 3-4.)

Journ. Proc. Linn. Soc. Lond., iii., p. 77 (1859); Theobald, Mon. Culicid., v., p. 155 (1910).

*Hab.*—Darwin, N. Territory (G. F. Hill; 10/11/13).

This is the first occurrence of the above species on the mainland of Australia. Mr. Hill states that it is a day-biting species.

STEGOMYIA FASCIATA (Fabr.).

Syst. Antl., 36 (1805); Theobald, Mon. Culicid., i. 289 (1901).

*Hab.*—Maclean, Grafton, Casino, Tabulam, N.S.W. (Dr. Ferguson).

A very distinct variety occurs in Townsville, which has the thoracic clothing of a light fawn-colour, and has the lyre-shaped ornamentation only on its lateral edges, the median longitudinal lines of white scales being entirely absent. In other respects, it is typical.

*STEGOMYIA PSEUDOSCUTELLARIS* Theobald.

Entomologist, xliii., No.565, p.156(1910).

*Hab.*—Samarai Island, Papua(Dr. Breinl).

This species was originally described from Suva, Fiji; and is said, by Bahr, to be a transmitter of *Filaria*.

*STEGOMYIA HILLI*, n.sp.

(Pl. xxxv., fig. 5.)

Head black, with a line of white, upright-forked scales at the base. Thorax clothed with dark scales. Abdomen black. Legs black.

♀. Head black, clothed with black, flat and upright-forked scales, with a narrow line of upright-forked ones at the base, and a row of small flat white ones bordering the eyes; antennæ dark brown, verticillate hairs black, second segment clothed with small, brown, flat scales, basal lobes brown; palpi slender, clothed with black scales.

Thorax dark brown, clothed with small, brown, spindle-shaped scales; scutellum light brown, clothed with brown, flat scales, border-bridles black; metanotum brown, prothoracic lobes fairly prominent and clothed with small, pale, flat scales, and a few dark bristles. Halteres with pale stems and dark knobs.

Abdomen clothed with purplish-black scales, first segment with a few pale bristles in addition, posterior border-bridles pale and very short, apex of abdomen with a dense tuft of black bristles, segments five to seven with comparatively large, creamy, apical, lateral spots; venter creamy-white, apex dark and clothed with dark bristles.

Legs purplish-black, femora pale beneath except the apex; ungues equal and simple.

Wings with the costa clothed with dark brown scales, veins clothed with flat, comparatively broad, brown scales only; first fork-cell longer and slightly 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 scarcely half the length of the cell, stem of the second fork-cell about two-thirds the length of its cell; anterior

basal cross-vein longer than the anterior cross-vein, and not quite twice its own length distant from it.

*Length*, 5 mm.

*Hab.*—Melville Island, North Australia (G. F. Hill; 12/4/14).

Described from two specimens. The clothing of the thorax, wings, and abdominal ornamentation renders this a conspicuous species. I have much pleasure in dedicating this species to its discoverer. Co-type in Mr. Hill's collection.

*CHÆTOCRUIOMYIA SYLVESTRIS* Theobald.

Mon. Culicid., v., p. 196 (1910).

*Hab.*—Immisfail, Queensland (E. Jarvis).

*SCUTOMYIA NOTOSRIPTA* (Skuse).

(Pl. xxxv., figs. 6-7).

Proc. Linn. Soc. N.S.Wales, (2), iii., p. 1738 (1888); Theobald, Mon. Culicid., i., p. 286 (1901); v., p. 200 (1910).

*Hab.*—Murwillumbah, N.S.W. (Dr. Ferguson); Toorak, Victoria (Dr. Cumpston); Eidsvold, Queensland (Dr. Bancroft), Townsville (Dr. Priestley).

We have also received specimens of a well defined variety of the above from Dr. Bancroft and Mr. G. F. Hill, in which the two, short, lateral, silvery lines, on either side of the median one on the thorax, are entirely absent; in other respects it is quite typical. Mr. Hill's specimen is evidently starved, as it measures only 2.5 mm.

*Hab.*—Eidsvold, Queensland; Darwin, Northern Territory.

*ÆDIMORPHUS AUSTRALIS*, n.sp.

Head with brown and white flat scales, with narrow-curved ones behind. Thorax with dark brown, narrow-curved scales. Abdomen unbanded, with white, lateral, basal spots. Hind-legs with white, basally banded tarsi.

♀. Head clothed with alternate patches of dark brown and white flat scales, with narrow-curved ones behind, and black and pale upright-forked ones, the pale ones at the base; proboscis black; antennæ dark brown, basal lobes and basal half of second segment pale; palpi clothed with black scales; eyes deep purplish-black.

Thorax black, clothed with dark brown, narrow-curved scales, and a few golden ones on the sides; prothoracic lobes black, clothed with white, narrow-curved scales; scutellum pale brown, clothed with white, flat scales; pleuræ clothed with white, flat scales; metanotum pale brown.

Abdomen pale, unbanded, clothed with black scales with a coppery tint, first segment with a few dark hairs also, with white basal lateral spots to all the segments, posterior border-bristles pale; venter pale beneath, penultimate and apical segments dark-scaled.

Legs black, with coppery reflections, with basal pale spots on the first and second tarsi of the fore- and mid-legs; hind-legs with the first three tarsals with white basal banding, the fourth unbanded, fifth all white; ungues equal and simple.

Wings with the costa, subcostal, and first longitudinal veins densely clothed with black scales, remaining veins and fringe clothed with dusky-brown scales; first fork-cell longer and but little narrower than the second, stem of the former about one-third the length of its cell, stem of the latter about one-half the length of the cell; base of the first fork-cell nearer the base of the wing than that of the second fork-cell; anterior basal cross-vein about its own length from the anterior cross-vein, halteres pale.

*Length*, 2.5 mm. (vix).

*Hab.*—Townsville, Queensland.

Described from a single perfect specimen taken while biting in the daytime. The above species is relatively close to *A. alboannulatus* Theobald, but can be distinguished from it by the leg-banding, ungues, and wing-venation.

Var. *DARWINI*, n. var.

(Pl. xxxv., fig. 8.)

♂. Head-clothing similar to type. Antennæ pale, plumes brown. Thorax as in the type. Legs as in the type; ungues of fore- and mid-legs very unequal, the larger much curved and with a comparatively large tooth, hind equal and simple. Wings with the costa, subcostal, and first longitudinal veins black-scaled, but not as densely as in the type; stem of the first fork-cell about three-

fourths the length of the cell, stem of the second fork-cell nearly as long as the cell. *Length*, 3 mm.

*Hab.*—Darwin, Northern Territory (G. F. Hill; 21/12/13).

MACLEAYA TREMULA Theobald.

(Pl. xxxv., fig.9.)

Entomologist, xxxvi., p. 155 (1903).

*Hab.*—Eidsvold, Queensland (Dr. Bancroft), Stannary Hills (Queensland Museum).

CULICADA FERGUSONI, n.sp.

Head clothed with golden scales. Thorax golden. Legs unbanded. Abdomen with white, incomplete, apical banding.

♂. Head black, clothed with golden, narrow-curved and upright-forked scales, and small, pale, flat, lateral ones, with golden bristles overhanging the eyes from the centre; eyes black; antennæ pale, nodes dark, plumes dusky; palpi black-scaled, longer than the proboscis, penultimate and apical segments pale at their bases, clothed with black hairs; proboscis black.

Thorax pale brown, clothed with golden scales; prothoracic lobes prominent; scutellum clothed with narrow-curved, golden scales; pleuræ yellowish-brown clothed with broad, white, flat scales; metanotum brown.

Abdomen black-scaled; segments with broad, white, apical, lateral spots, which give them the appearance of being banded, penultimate segment with a narrow, apical, white band, apical segment almost entirely clothed with white scales; venter clothed with pale scales.

Legs black, knee-spot pale in the fore- and mid-legs, light ochraceous in the hind, tibio-tarsal spot ochraceous, femora pale beneath; unguis of fore- and mid-legs unequal, the larger with a single tooth, hind equal and simple.

Wings with the costa black, veins clothed with dusky-brown scales; first fork-cell longer and narrower than the second, stem of the former about one-half the length of its cell, stem of the latter about two-thirds the length of the cell; anterior basal cross-vein longer than the anterior cross-vein, and about once and one-half

its own length distant from it; fringe dusky. Halteres with the stems pale, and knobs light brown.

*Length*, 5 mm.

♀. Similar to ♂. Palpi black-scaled; antennæ dark brown, basal lobes and base of second segment pale. The lateral spots on the abdomen not so prominent as in the ♂; sixth and seventh segments with apical banding. Ungues equal and simple. *Length*, 5.5 mm.

*Hab.*—Milson Island, Hawkesbury River, N.S.W.

Described from one male and one female, bred by Dr. Ferguson. Type-male in Coll. Ferguson.

*CULICADA VICTORIENSIS*, n.sp.

(Pl. xxxvi., fig.10.)

Head clothed with golden, narrow-curved scales, and black, lateral ones. Thorax clothed with narrow-curved, pale golden scales. Abdomen black-scaled, unbanded, with white lateral spots. Tarsi with basal banding.

♀. Head black, clothed with golden, narrow-curved and upright-forked scales, and black, flat, lateral ones, with a fringe of small, narrow-curved, golden ones bordering the eyes, with golden bristles overhanging the latter from the centre; antennæ black, verticillate hairs black, basal lobes dark brown, with creamy flat scales on their inner surfaces, basal two-thirds of second segment pale; palpi black-scaled, slender, second segment mottled with white scales, apex white; proboscis black; eyes purplish-black, with silvery spots; clypeus black.

Thorax dark chestnut-brown, with a narrow, median, longitudinal, black line extending from the anterior end to opposite the wing-roots, clothed with narrow-curved, pale golden scales, the posterior end and scutellum paler; scutellum clothed with pale golden, narrow-curved scales, and golden border-bristles; pleuræ yellowish-brown, clothed with creamy flat scales; metanotum light brown.

Abdomen clothed with black scales, first segment clothed with yellowish scales and hairs, the second to fourth segments with median, basal, creamy-yellow spots, all the segments with white, lateral, basal spots; venter mottled with creamy and dark scales.

Wings clothed with black scales; first fork-cell longer and narrower than the second, their bases level; stem of the first fork-cell one-half the length of its cell, stem of the second two-thirds the length of the cell; supernumerary and anterior cross-veins level, the anterior basal cross-vein the same length as the anterior cross-vein, and about twice and one-half its own length from it; fringe black.

Legs black, femora ochraceous beneath, knee-spots ochraceous; fore- and mid-tibiae mottled, first three tarsi of fore- and mid-legs with creamy basal banding, all the tarsi of the hind-legs banded; unguis all equal and uniserrate.

*Length*, 5.5 mm.

*Hab.*—Toorak, Victoria (23/4/14).

Described from a single specimen, presented to the Institute by Dr. Cumpston. It can be distinguished from *C. bupengaryensis* Theobald, by its banded legs, unbanded abdomen, the clothing of the thorax, and the serrated unguis.

#### CULICADA AUSTRALIS (Erichson).

Archiv für Naturg., viii., p.470(1842); Theobald, Mon. Culicid., ii., p.91(1901).

*Hab.*—Hilltop, Narromine, N.S.W. (Drs. Cleland and Ferguson).

This species is placed in the genus *Culicada* on account of the wings having short fork-cells; the vein-scales being clothed with larger and denser scales than in *Culex*; and the palpi being composed of four segments, the apical one small and nipple-shaped.

#### CULICADA VITTIGER (Skuse).

Proc. Linn. Soc. N. S. Wales, (2), iii., p.1728(1888); Theobald, Mon. Culicid., i, p.387(1901); Taylor, Proc. Linn. Soc. N. S. Wales, xxxviii., p.753, Pl. xxx., figs.1-2 (1914).

*Hab.*—Nowra, N. S. W. (Dr. Cleland), Yarrawin (W. W. Froggatt); Eidsvold, Queensland (Dr. Bancroft), Cardigan (F. H. Taylor).

#### CULICADA FLAVIFRONS (Skuse).

Proc. Linn. Soc. N. S. Wales, (2), iii., p.1735 (1888); Taylor, *l.c.*, xxxviii., p.751 (1914).



A specimen of this species was kindly lent to me by Mr. Froggatt, Government Entomologist of New South Wales, which was taken by him on the Clarence River, Northern New South Wales.

The ungues of the fore- and mid-legs are equal and uniserrate, of the hind-legs equal and simple.

*CULICADA TASMANIENSIS* Strickland.

Entomologist, xliv., No.576, p.181 (1911); Taylor, Trans. Ent. Soc. Lond., 1913, p.687, Pl. xli., figs.3-4 (March 31, 1914).

*Hab.*—Kelso, Hobart, Lindisfarne, St. Helens, Tasmania (F. M. Littler).

Edwards [Ann. Mag. Nat. Hist., (8), ix., p.526 (1912)] places this species as a synonym of *C. crucians* Walker, remarking that Walker's type is in poor condition, but quite recognisable as being the same as Strickland's species.

*CULICADA VANDEMA* Strickland.

(Pl. xxxvi., fig.11.)

Entomologist, xliv., No.577, p.202(1911).

*Hab.*—Wedge Bay, Tasmania (F. M. Littler).

*CULICELSA VIGILAX* (Skuse).

Proc. Linn. Soc. N. S. Wales, (2), p.1731 (1888); Edwards, Ann. Mag. Nat. Hist., (8), ix., p.524 (1919); Taylor, Proc. Linn. Soc. N. S. Wales, xxxviii., p.756 (1914).

*Hab.*—Rydalmere, Maclean, N.S.W. (Dr. Ferguson); Vailala, Lese, Papua (Dr. Breinl).

Edwards gives *C. procox* Theob., (*nec* Skuse) as a synonym. I think this must be an error, as the species, Theobald redescribed, agrees with Skuse's type.

*CULICELSA ALBOANNULATA* (Macquart).

(Plate xxxvi., figs.12-13.)

Dipt. Exot. Suppl., iv., p.10(1850); Theobald, Mon. Culicid., i., p.389(1901).

*Hab.*—The Oaks, N.S.W.(Dr. Ferguson); Eidsvold, Queensland (Dr. Bancroft), Stannary Hills (Queensland Museum).

## CULEX BIOCELLATUS, n.sp.

(Plate xxxvi., figs. 14-15.)

Head clothed with golden scales. Thorax brown, clothed with golden scales, Abdomen black-scaled, with ochraceous basal banding. Legs with the first three tarsi basally banded.

♀. Head brown, clothed with golden, narrow-curved and upright-forked scales, with small, flat, golden ones laterally; proboscis black, with the middle third mottled with golden scales; palpi black-scaled; eyes black and silvery; antennæ black, basal lobes and base of second segment yellow.

Thorax brown, clothed with golden, narrow-curved scales; prothoracic lobes clothed with flat, golden scales and bristles; scutellum yellow, clothed with golden, narrow-curved scales; pleuræ brown, clothed with creamy, flat scales and golden bristles; metanotum yellowish-brown.

Abdomen pale, black-scaled, first segment clothed with creamy scales and golden bristles, the second and fifth to seventh segments with broad, ochraceous, basal banding, remaining segments with narrow banding, all the segments with lateral, white, basal spots, posterior border-bristles golden; venter with the first two segments creamy-yellow, remaining segments with creamy-yellow, basal banding.

Legs black-scaled; fore-legs with the femora creamy-yellow beneath, tibiæ and first tarsals mottled with yellow scales beneath, first and second tarsi with basal pale spots, remaining tarsi unbanded; mid-legs with the basal two-thirds of the femora pale beneath, the base and apex with golden rings, the first three tarsi with white basal bands; hind-femora creamy, with a broad, almost apical, black band and an apical pale ring, the first three tarsi with broad, white, basal banding; ungues of fore- and mid-legs equal and uniserrate, hind equal and simple.

Wings clothed with black scales, with a yellow costal spot at the base, and another extending to the first longitudinal vein immediately above the first fork-cell; fringe black; first fork-cell longer and scarcely narrower than the second: the anterior basal cross-vein longer than the anterior cross-vein, and about once

and one-half its own length distant from it. Halteres creamy-yellow.

*Length*, 4 mm.

*Hab.*—Milson Island, Hawkesbury River, N.S.W.

Described from specimens taken by Drs. Ferguson and Cleland. It is a very handsome and well defined species.

#### CULEX FATIGANS Wiedeman.

Aussereurop. zweiflüg. Insecten, p.10 (1828); Theobald, Mon. Culicid., i, p.151 (1901).

*Hab.*—Casino, Tabulam, Milson Island, N.S.W.(Dr. Ferguson); Toorak, Victoria(Dr. Cumpston).

#### CULEX OCCIDENTALIS Skuse.

(Pl. xxxvii., figs.16-17.)

Proc. Linn. Soc. N. S. Wales, (2), iii., p.1729(1888); Theobald, Mon. Culicid., i., p.419 (1901); Taylor, Proc. Linn. Soc. N. S. Wales, xxxviii., p.756 (1914).

*Hab.*—Sydney, Yerranderie, The Oaks, Milson Island, N.S.W. (Dr. Ferguson); Eidsvold, Queensland (Dr. Bancroft).

Dr. Bancroft has recently sent me a series of a variety of this species, in which the hind spical tarsus is pure white. It conforms with typical specimens in other details.

#### CULEX TIGRIPES Grandpré et Charmoy.

(Pl. xxxvii., fig.18.)

Les Monst. (Planters' Gaz. Press) 1900; Theobald, Mon. Culicid., ii., p.34 (1901).

*Hab.*—Rydalmere, N.S.W.(Dr. Ferguson).

#### CULEX SITIENS Wied.

Aussereurop. zweiflüg. Ins., i., p.543 (1828); *Culex annulirostris* Skuse, Proc. Linn. Soc. N. S. Wales, (2), iii., p.1737(1888); Theobald, Mon. Culicid., i., p.360 (1901); Edwards, Bull. Ent. Research, iv., p.232 (1913).

*Hab.*—Kerema, Lese, Papua (Dr. Breinl).

I have examined a long series of *C. annulirostris* Skuse, from various localities, and have found specimens which exactly agree with Theobald's description of *C. sitiens* Wied.

## CÆNOCEPHALUS CONCOLOR Taylor.

Trans. Ent. Soc. Lond. 1913, p.700, Pl. xlii., figs.16-17 (1914).

*Hab.*—Kelso, Tasmania.

Specimens of this species have been received from Mr. F. M. Littler. They are larger, 6.5 mm., but are quite typical.

## FINLAYA POICILIA Theobald.

Mon. Culicid., iii., p.283 (1903); v., p.464 (1910).

*Hab.*—Kerema, Papua (Dr. Breinl).

## SKUSEA BANCROFTI, n.sp.

(Pl. xxxvii., fig.19.)

Head clothed with brown and white flat scales, and black upright-forked ones. Abdomen brown, unbanded, with small, lateral, white spots. Legs brown, unbanded.

♂. Head brown, clothed with mixed brown and white flat scales, with a few, dark, upright-forked ones at the base; antennæ pale, nodes black, basal lobes black; proboscis brown, the apical third swollen, palpi black, with a few black bristles at the apex; clypeus black; eyes black and silvery.

Thorax brown, clothed with pale, narrow, curved scales; scutellum light brown, clothed with pale, narrow, curved scales; pleuræ yellowish-brown, clothed with white, flat scales; metanotum brown.

Abdomen clothed with dark brown scales, segments with small, lateral, basal, white spots; venter clothed with pale scales.

Legs brown, femora pale beneath; ungues of fore- and mid-legs unequal, the larger with a single tooth, hind-ungues equal and simple.

Wings with the costa dusky brown, veins clothed with brown scales; first fork-cell longer and narrower than the second, base of the latter nearer the base of the wing than that of the former; supernumerary and anterior cross-veins almost in a straight line, anterior basal cross-vein shorter than the anterior cross-vein, and nearly thrice its own length distant from it.

*Length*, 2.5 mm.

♀. Similar to ♂. Antennæ dark brown, basal lobes paler; palpi black-scaled, bristles brown; fore- and mid-ungues equal, uni-serrate, hind equal and simple.

Wings with the first fork-cell longer and narrower than the second, stem of the former about two-thirds the length of the cell; anterior basal cross-vein a little more than twice its own length from the anterior cross-vein.

*Length*, 3 mm.

*Hab.* — Eidsvold, Queensland (Dr. T. L. Bancroft).

Close to *S. diurna* Theob., but can be distinguished from it by the head-ornamentation, the wing-venation, and the fore- and mid-ungues. I have much pleasure in dedicating this species to its discoverer. Dr. Bancroft writes that it is a sylvan species, and bites man.

MENOLEPSIS(?) TASMANIENSIS, n.sp.

(Pl. xxxvii., fig. 20.)

Head clothed with creamy-yellow and dark brown scales. Legs brown. Abdomen black-scaled, unbanded.

♀. Head dark brown, clothed with creamy-yellow, narrow-curved scales, with mixed black and creamy-yellow, upright-forked ones, and a patch of bronzy-brown, narrow-curved ones on either side in front, the lateral, flat scales small and creamy-white, with a small patch of dark ones in their midst; eyes purplish-black and silvery, border-bristles dark, with some golden-yellow ones overhanging the eyes from the centre; palpi apparently three-jointed, pale, clothed with dark scales, and a few scattered pale ones with numerous black bristles; proboscis black; antennæ brown, second segment pale, basal lobes dark brown, and clothed with small, dark, outstanding, narrow scales.

Thorax chestnut-brown, clothed with small, narrow-curved, creamy scales, with a lateral, pre-alar row of white, outstanding, flat ones, and numerous, yellowish bristles at the roots of the wings; scutellum chestnut-brown, clothed with creamy, narrow-curved scales, posterior border-bristles golden; prothoracic lobes chestnut-brown, clothed with creamy, narrow-curved scales; pleuræ brown, clothed with creamy-white, flat scales and yellow

bristles; metanotum chestnut-brown, with a patch of white, curved, and flat scales on the posterior third.

Abdomen brown, first and second segments very hairy, remaining segments more or less hairy; first segment with mixed pale and dark brown scales, the second and third segments with a few white scales at their bases, seventh segment with white basal banding, segments two to seven with white, lateral, basal spots; venter white-scaled.

Legs brown, femora, tibiae, and first tarsals mottled with white scales, knee-spot pale; unguis equal and uniserrate

Wings with the costa subcostal, and first longitudinal veins clothed with dark brown scales; 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 one-third the length of its cell, stem of the second one-half the length of the cell; anterior basal cross-vein longer than the anterior cross-vein, and about one-fifth its own length distant from it. Halteres with pale stems and dusky knobs.

*Length*, 6.5 mm.

*Hab.*—Wedge Bay, Tasmania (F. M. Littler).

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#### EXPLANATION OF PLATES XXXIV.-XXXVII.

[Figs. 1, 2, 6, 8, 11 to 18, and 20 ( $\times 16$ ); figs. 3, 4, 5, 7, 9, 10 and 19 ( $\times 40$ ).]

##### Plate xxxiv.

Fig. 1.—*Armigeres obturbans* (Walker) ♀; head.

Fig. 2.—*Armigeres obturbans* (Walker) ♀; wing.

Fig. 3.—*Stegomyia scutellaris* (Walker) ♂; head.

Fig. 4.—*Stegomyia scutellaris* (Walker) ♂; wing.

##### Plate xxxv.

Fig. 5.—*Stegomyia hilli*, n.sp., ♀; wing.

Fig. 6.—*Scutomyia notoscripta* (Skuse) ♂; head.

Fig. 7.—*Scutomyia notoscripta* (Skuse) ♂; wing.

Fig. 8.—*Edimorphus australis* var. *darwinii*, n.var., ♂; wing.

Fig. 9.—*Macleaya tremula* Theobald, ♀; wing.

## Plate xxxvi.

- Fig. 10.—*Culicada victoriensis*, n.sp., ♀; wing.  
Fig. 11.—*Culicada vandema* Strickland, ♀; wing.  
Fig. 12.—*Culicelsa alboannulata* (Macq.) ♂; head.  
Fig. 13.—*Culicelsa alboannulata* (Macq.) ♀; wing.  
Fig. 14.—*Culex biocellatus*, n.sp., ♀; head.  
Fig. 15.—*Culex biocellatus*, n.sp., ♀; wing.

## Plate xxxvii.

- Fig. 16.—*Culex occidentalis* Skuse, ♂; head.  
Fig. 17.—*Culex occidentalis* Skuse, ♀; wing.  
Fig. 18.—*Culex tigripes* G. et C., ♀; wing.  
Fig. 19.—*Skusea bancrofti*, n.sp., ♀; wing.  
Fig. 20.—*Menolepis*(?) *tasmaniensis*, n.sp., ♀; wing.



Figs. 1-2. *Arniigeres obturbans* (Walk.).

Figs. 3-4. *Stegomyia scutellaris* (Walk.).

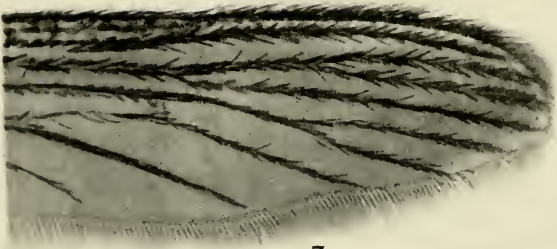




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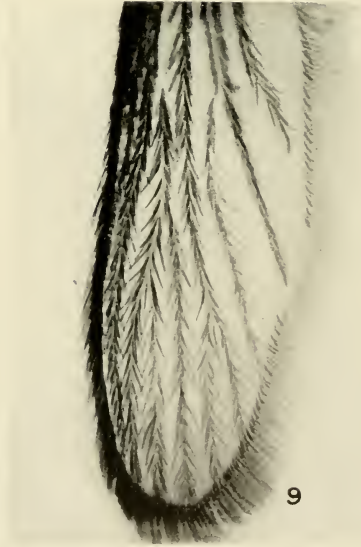
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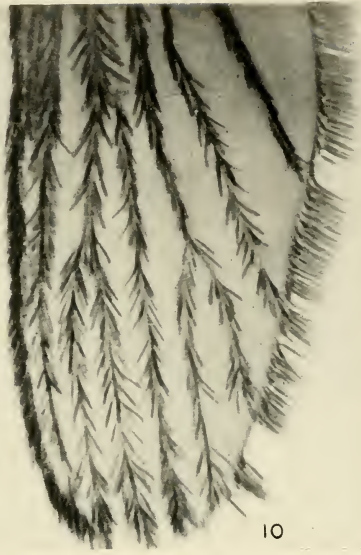


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Fig. 5. *Stegomyia hilli*. Figs. 6-7. *Scutomyia notoscripta*.  
 Fig. 8. *Edimorphus australis* v. *darwini*. Fig. 9. *Macleaya tremula*.



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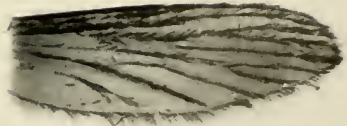
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13

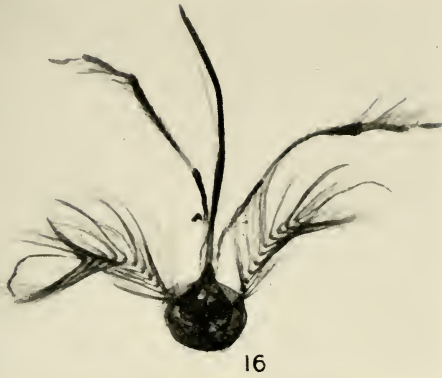


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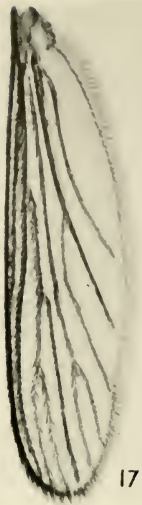


15

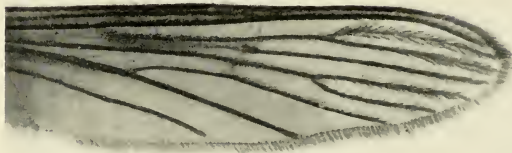
Fig. 10. *Culicada victoriensis*. Fig. 11. *C. vandena*. Figs. 12-13. *Culicella alboannulata*.  
 Figs. 14-15. *Culex bioceclatus*.



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Figs. 16-17. *Culex occidentalis*. Fig. 18. *C. tigripes*. Fig. 19. *Skusca bancrofti*.  
Fig. 20. *Menolepis (?) tasmaniensis*.