

No. V.—DIPTERA, CULICIDÆ.

BY FRED. V. THEOBALD, M.A., F.E.S., ETC.

(Plate 4 and Text-figures 1—12.)

(COMMUNICATED BY PROF. J. STANLEY GARDINER, M.A., F.R.S., F.L.S.)

Read 15th June, 1911.

THE following Report is drawn up from material collected by Mr Hugh Scott and Mr J. C. F. Fryer during the Expedition to the Seychelles and dependent Islands, such as Aldabra. So far only nine species of Culicidæ have been found on the Islands. One of these (undoubtedly a new species) was preserved only in spirit and cannot be described; from the wing scales and ♀ palpi it is evidently a *Taniorhynchus* and of large size, but there are certain differences which may necessitate its being placed in a new genus when further material comes to hand. Of the other eight species five are new; one is a *Reedomyia*, another a *Culicelsa*, the third a *Culex*, the remaining two come in a new genus for which I propose the name of *Pseudoficalbia* on account of their general resemblance to the Indian *Ficalbia*.

In evident error I included *Ficalbia inornata* Theob. from the Transvaal and *Ficalbia nigripes* Theob. in the Asiatic genus; they are now seen to clearly come in *Pseudoficalbia*.

The other three previously known Culicids are *Stegomyia fasciata*, Fabricius, *Stegomyia scutellaris*, Walker and *Culex fatigans*, Wiedemann.

The latter was not obtained by the members of the Expedition, unless it occurs in some tubes of specimens preserved in alcohol, numbers of which have not been examined as it is merely guess work to identify a Culicid from such material. Specimens preserved in alcohol are most useful, if they can be definitely associated with dry specimens of the same species.

The same must be said of the larvæ collected, there being no reference as to which species they belong to. One, however, is figured, as Mr Hugh Scott thinks that it belongs to one of the new species described here.

Genus STEGOMYIA, Theobald.

Monog. Culicid. i. 283, 1901.

1. *Stegomyia fasciata* (Fabr.), 1805.

*Culex calopus*, Meig., 1818.

„ *frater*, Rob. Desv., 1827.

„ *mosquito*, Rob. Desv., 1827.

„ *teniatus*, Wied., 1828.

„ *konoupi*, Brullé, 1832.

*Culex toxorhynchus*, Macq., 1838.

„ *annulitarsis*, Macq., 1848.

„ *formosus*, Walker, 1848.

„ *viridifrons*, Walker, 1848.

„ *inexorabilis*, Walker, 1848.

<i>Culex excitans</i> , Walker, 1848.	<i>Culex frater</i> , Rob. Desv., 1827.
„ <i>exagitans</i> , Walker, 1886.	„ <i>mosquito</i> , Arrib., 1891.
„ <i>impatibilis</i> , Walker, 1860.	„ <i>elegans</i> , Ficalbi, 1896.
„ <i>zonatipes</i> , Walker, 1861.	„ <i>rossii</i> , Giles, 1899.
„ <i>bancroftii</i> , Skuse, 1886.	<i>Stegomyia fasciata persistans</i> , Banks, 1906.

(Fabricius, Syst. Antl. 36. 13 (1805); Theobald, Monog. Culicid. i. 289, 1901, iii. 141, 1903, iv. 176, 1907 and v. 158, 1910.)

*Localities.* Aldabra : Picard Island, 1908—9 (J. C. F. Fryer). Amirantes : Darros Island, 13. X. 1905. \*Seychelles : Port Victoria (Dr Denman).

*General distribution.* South America, Central America, Southern and Central North America, West Indies ; Ceylon, India, Malay States, China, Japan, Philippine Islands, East Indies ; Australia ; South, Central, North, East and West Africa ; Southern Europe ; Madagascar ; Pacific Islands ; Fiji ; Mauritius ; Sandwich Islands, etc.

An abundant and widely-spread household species which conveys yellow fever. More abundant in the new than in the old world.

## 2. *Stegomyia scutellaris* (Walker), (Text-fig. 1).

<i>Culex scutellaris</i> , Walker, 1859.
„ <i>variegatus</i> , Doleschall, 1858 ; (non Schrank, 1871 ; non Blanchard, 1852).
„ <i>albopictus</i> , Skuse, 1895.

(Walker, Journ. Linn. Soc. Lond., Zool. iii. 77, 1859 ; Theobald, Monog. Culicid., i. 298, 1901, iii. 144, 1903, iv. 179, 1907, v. 155, 1910.)

*Localities.* Seychelles : Mahé ; marshes on coastal plain at Anse aux Pins, 1909 ; near Morne Blanc, about 800 ft., 1908 ; Cascade Estate, about 1000 ft. ; Long Island, 1908 ; Capucin (R. P. Dupont)† ; Port Victoria (R. P. Dupont and Dr Denman)† ;



Fig. 1. *Stegomyia scutellaris* (Walker), ♀, wing.

Silhouette, low cultivated country, IX. 1908. Praslin, 1908. Dennis Island, 1908. Coetivy, 10. V. 1905. Amirantes : Desroches Island, 15. VIII. 1905. Chagos : Peros Banhos Atoll (Diamant Island, 19. V. 1905).

*General distribution.* Ceylon, India, Malay States, China, East Indies, Japan, Formosa, Philippine Islands, Mauritius, Sandwich Islands.

*Note.* Mr Scott gives the following notes : “Bites in daytime” ; “some bite in forests in daytime.” Some of the specimens were taken in 1905 on the H.M.S. “Sealark” Expedition.

\* This record was included in the Monograph of the Culicidæ of the World.

† These records were originally given in the Monograph of Culicidæ of the World.

This species is widely distributed over Asia and the East Indies, where it largely takes the place of *Stegomyia fasciata* (Fabr.).

The species in the Fiji Islands and the Pacific Islands is not as I recorded (Monog. Culicidæ, v. p. 155) this insect, but a distinct species known as *Stegomyia pseudoscutellaris* Theobald (The Entomologist, June 1910, p. 156).

True *scutellaris* have white puncta on the pleuræ, *pseudoscutellaris* has prominent white lines.

The single median white thoracic line is the same, however, in both species and thus they may easily be confused.

#### Genus REEDOMYIA, Ludlow.

Ludlow, Canad. Ent., xxxvii. 94, 1905; Theobald, Monog. Culicid., iv. 257, 1907, v. 252, 1910.

#### 3. *Reedomyia seychellensis*, nov. sp. (Plate 4, figs. 1, 2 and Text-fig. 2).

Thorax rich brown with some scattered golden scales; scutellum with flat white scales; pleuræ pale brown with patches of flat creamy scales. Head with a prominent dark spot on each side. Abdomen black, second to fourth segments with narrow basal



A.



B.

Fig. 2. *Reedomyia seychellensis*, nov. sp. A. Wing of ♀. B. Wing of var. *similis*.

white bands, small basal lateral white spots; venter with broad basal white bands. Legs brown, unbanded, venter of femora creamy, an apical creamy spot on femora and a broader apical pale band to the tibiæ, most prominent on the hind legs.

♀. Head (Plate 4, fig. 1) dark, clothed with narrow-curved pale golden scales in the middle, which show brown tinges in front, upright black forked scales behind and a few thin upright long brown forked scales in front, a large patch of flat black scales on each side followed by flat creamy scales which partially surround the dark area posteriorly, chætæ black; clypeus nude, black; palpi small, densely clothed with black scales and with black chætæ; proboscis normal brownish-black. Thorax deep rich brown, with small



narrow-curved bronzy-brown scales and some scattered pale golden ones, some broader creamy ones in front near the head; chætæ dark brown to black; scutellum (Plate 4, fig. 2) pale brown clothed with flat silvery white scales and some similar coloured small narrow-curved ones along the posterior border, posterior border-bristles long rich brown, six large ones to the mid lobe in two groups and one smaller between, some very short pale golden hairs between them; metanotum brown; pleuræ pale brown with three patches of flat creamy scales, two large and one small. Abdomen black, the basal segment dark, the second, third and fourth with basal white bands and traces on the fifth, all the segments with basal lateral white spots, border bristles pale golden; venter dark but with very broad basal white bands.

Legs deep brown, unbanded; femora pale beneath, except just at the apex, a small apical pale band, tibiæ dark with a broad apical white band and with pale bristles, first tarsal segments with pale bristles; fore and mid ungues equal and uniserrate, hind equal and simple (?).

Wings (Text-fig. 2 A) with brown scales, the first submarginal cell longer, but no narrower than the second posterior cell, its stem rather more than half the length of the cell, its base slightly nearer the apex of the wing than that of the second posterior cell, stem of the latter not quite so long as the cell; mid cross-vein large, the posterior considerably shorter than the mid and about twice its own length distant from it; halteres pale ochreous.

*Length.* 3 to 4 mm.

*Localities.* Seychelles: Dennis Island, VIII. 1908 (J. C. F. Fryer); Silhouette, high forest, VIII. 1908 (H. Scott); Mahé, near Morne Blanc, X.—XI. 1908 (H. Scott). Aldabra: Takamaka (J. C. F. Fryer, 1908—9).

*Observations.* Described from five perfect females. It is easily distinguished from the other known *Reedomyia* by the pale apex of the femora and tibiæ, by the apex of the abdomen not being white, and from its nearest ally *R. neobiannulata*, Theob. (from West Africa) by the hind tibial bands being much more prominent and no white scaled spot at the base of the wings.

In the previously described species of this genus I did not notice the small narrow-curved scales at the posterior border of the scutellum plainly seen in the Seychelles insect.

One small female shows two obscure thoracic pale golden-scaled spots on the middle of the mesonotum and traces of two anteriorly, but the general characters are such that it cannot be accepted as a distinct species. It is one of two specimens from Aldabra, the other quite as in the type. (= var. *similis*, Text-fig. 2. B.)

#### Genus CULICELSA, Felt.

Felt, Bull. 79, Ent. 22, N. York State Mus. 391. 6, 1904; Theobald, Monog. Culicid. iv. 377, 1907, v. 315, 1910.

#### 4. *Culicelsa fryeri*, nov. sp. (Text-fig. 3).

Thorax deep rich brown with some golden scales forming four obscure spots and presenting linear arrangement; scutellum slightly paler scaled. Abdomen black with

basal white bands *with median* lateral white spots. Legs deep brown with scattered golden scales in certain lights, golden chætæ on the tibiæ; tarsi with basal white bands on all segments of the hind legs, on all but the last in the mid and all but last two in the front.

♀. Head black with creamy yellow scattered narrow-curved scales and numerous black upright forked scales over most of the surface, a small patch of flat grey scales anteriorly at the sides, with dusky ones behind and laterally, golden to creamy narrow-curved scales around the eyes; chætæ deep brown with golden sheen apically; clypeus bright brown, slightly acuminate; proboscis deep brown with scattered yellowish scales on the basal half; antennæ brown, basal segment bright pale brown, some scanty dark scales basally.

Thorax deep rich brown with scattered small pale golden narrow-curved scales, which are more dense in two patches in front and on the middle of the mesonotum, forming indistinct spots (the median most prominent) and around the front, there are also traces of linear arrangement in certain lights, chætæ rich brown with golden reflections;

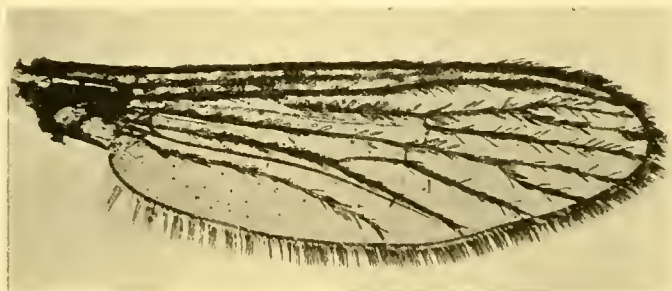


Fig. 3. *Culicelsa fryeri*, nov. sp., ♀, wing.

scutellum brown with almost cream-coloured narrow-curved scales, which spread into the mesonotum, border bristles rich brown; metanotum brown; pleuræ brown with creamy puncta of flat scales.

Abdomen black, banded, the basal segment with white scales laterally and in the middle, dark scales apically in the middle; second to fifth segments with basal white bands which on the second and fifth spread outward slightly in the middle line, the fifth segment with a narrow band of apical creamy scales and the sixth with ochreous yellow median scales and a similar coloured apical band, all the segments with median lateral white spots, most prominent on the fifth and spreading on to the dorsum; border bristles pale golden brown; venter mostly white scaled, with narrow dark apical bands.

Legs banded, dark brown with scattered golden scales on the femora and tibiæ and a few on the first tarsal segment, femora mostly pale scaled beneath, apex of femora and tibiæ yellow, base of first, second and third front tarsals with narrow white bands, last two dark, in mid legs the fourth has also a narrow white band, in the hind legs all the tarsals have broader basal white bands; femora, tibiæ and to some extent the first hind tarsals with golden bristles; ungues, equal and uniserrate on fore and mid legs, equal and simple on hind. Wings (Text-fig. 3) with mottled scales; scales on the basal half of the wing rather broad and spatulate, lateral vein scales thinner past the cross-veins; fork-cells

short, the first slightly longer and much narrower than the second, its stem nearly two-thirds the length of the cell, its base if anything slightly nearer the apex of the wing than that of the second fork-cell, stem of the latter nearly as long as the cell; mid cross-vein longer than either the supernumerary or the posterior, the latter about its own length distant from the mid cross-vein.

Halteres pallid.

*Length.* 3.5 to 4 mm.

*Locality.* Aldabra: Takamaka (J. C. F. Fryer), 1908—9.

*Observations.* Described from a series of nine females. There is some slight variation in the thorax, some showing a more uniform appearance than others. The abdomen also varies, some showing extra and more prominent median extensions of the basal white bands, but the median lateral white abdominal spots, the scattering of golden scales on the thorax and legs and the mottled wings should at once separate it.

In some respects (*i.e.* wings) it bears some resemblance to a *Grabhamia*.



Fig. 4. *Culex scottii*, nov. sp., ♀.



Fig. 5. *Culex scottii*, nov. sp., head of ♂.

#### Genus CULEX, Linnæus.

Linnæus, Linn. Syst. Nat. Ed. x., 1758, 602; Theobald, Monog. Culicid. i. 326, 1901, iii. 157, 1903, iv. 387, 1907, v. 322, 1910.

5. *Culex scottii*, nov. sp. (Plate 4, fig. 3 and Text-figs. 4—7).

Head brown with golden scales; palpi and proboscis brown; thorax deep rich brown with two double median parallel golden-scaled lines and a curved lateral golden scaled line, acutely bent in at the middle of the mesonotum and a short golden scaled line over the root of each wing, sharply defining off two prominent anterior deep brown areas, two narrower posterior ones and a thin median area.

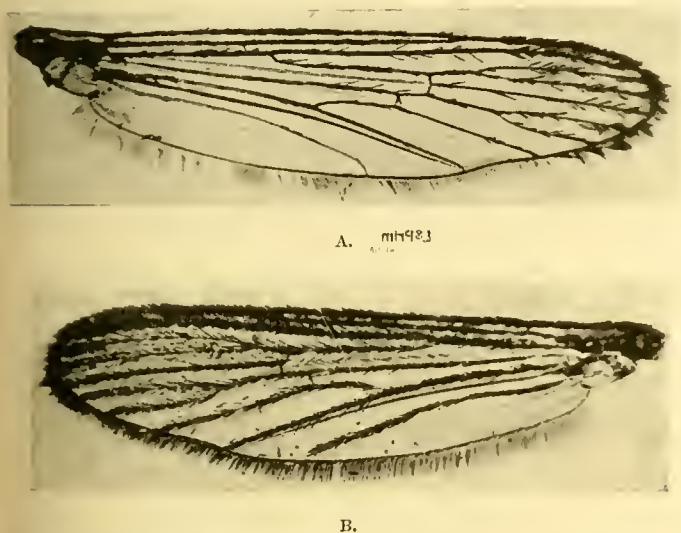


Abdomen unbanded but with basal lateral yellow spots. Legs unbanded, apex of femora and tibiæ pale, venter of femora pale.

♀ (Text-fig. 4.) Head brown, with dense narrow-curved pale golden scales, rich golden upright forked scales in the middle, dark ones at the sides and flat pale creamy scales laterally, chætæ brown with golden reflections; clypeus, palpi and proboscis deep brown; antennæ brown, basal segment bright ochreous.

Thorax (Plate 4, fig. 3) deep rich brown with narrow-curved almost hair-like scales, ornamented as follows with golden and rich bronzy brown—two submedian golden-scaled parallel lines in front, each with a faint median dividing darker line, a curved line of similar coloured scales on each side, but brighter, bent inwards about the middle of the mesonotum and continued backwards parallel with the two submedian lines, another short line in front of the roots of the wings; chætæ dark brown with golden reflections; scutellum brown with narrow-curved pale scales and with eight posterior border bristles; metanotum deep brown; pleuræ deep brown with three patches of dull grey flat scales.

Abdomen black, unbanded, with golden posterior border bristles; laterally are basal golden yellow to creamy spots, venter with similar coloured basal bands, pale at the base.

A. *mh923*

B.

Fig. 6. *Culex scottii*, nov. sp. A. Wing of ♂. B. Wing of ♀.Fig. 7. *Culex scottii*, nov. sp., genitalia of ♂.

Legs dark brown, venter of femora, except near apex, pale creamy, a pale spot at the apex of femora and a more prominent one at apex of tibiæ, especially on the hind legs; ungues equal and simple.

Wings (Text-fig. 6 B) with the apices of the veins densely scaled, with long thin lateral scales, fork-cells long, the first submarginal much longer and a little narrower than the second posterior cell, its base much nearer the base of the wing than that of the latter, its stem very short, less than one-fifth the length of the cell; stem of the second fork-cell a little more than half the length of the cell; posterior cross-vein sloping backwards, nearly twice its own length distant from the mid cross-vein.

Halteres with pale stem and fuscous knob with some grey scales.

*Length.* 3.5 to 4.5 mm.

♂. Head (Text-fig. 5) with narrow-curved pale golden yellow scales, black upright forked scales except in front, where they are rich golden, flat creamy-coloured scales laterally, chaetæ brown and golden brown, bright golden in the middle; palpi thin, acuminate, longer than the proboscis by the last segment, which is a little longer than the penultimate one, brown, a narrow pale almost white band towards the base, and a small one at the base of the last two segments, last two segments with long brown hairs on each side; antennæ banded brown and white, plume hairs very fine and brown.

Thorax as in the ♀. Abdomen black with traces of yellow basal bands (in some lights these are almost white) on third, fourth and fifth segments, a few yellow scales on the second, the apical segments with long lateral patches of yellow scales; border bristles and lateral hairs pale brown and golden; venter mostly yellow-scaled, narrow black bands to the last one or two segments. Male claspers (Text-fig. 7) simple, rather broad, with a short subapical terminal segment, foliate plate normal.

Legs brown, unbanded, venter of femora pale, a pale spot at apices of the femora and tibiæ. Fore and mid unguis unequal uniserrate, hind equal and simple.

Wings (Text-fig. 6 A) with rather long fork-cells, the scales broader than in the ♀, first fork-cell much longer and narrower than the second fork-cell, its stem one-fourth the length of the cell, its base considerably nearer the base of the wing, stem of the second fork-cell about two-thirds the length of the cell, posterior cross-vein about the same length as the mid and about twice its own length distant from it.

*Length.* 4.5 mm.

*Localities.* Seychelles: Mahé and Silhouette, 1908—9 (H. Scott).

*Observations.* Described from a series of 41 ♀s and 3 ♂s.

The following notes sent with them:—"Mahé, Cascade Estate, about 1000 feet, calmer and wetter season X. 1908 and XI. 1909. Come into house at evening, especially when lamps are lighted"; "Mahé near Morne Blanc, 1000 feet X.—XI. 1908, come into house when lamp is lighted and bite"; "Silhouette forests about 1000 feet and more, trade wind season VIII.—IX. 1908, come in evening when there is lamplight and bite; on very windy evenings much less numerous."

There is not much variation in the specimens, but some do not show the thoracic ornamentation as clearly as others. Its marked thoracic appearance and unbanded abdomen in the female will at once separate it from other *Culices*. The male shows abdominal banding, but again the thoracic ornamentation is very marked.

#### 6. *Culex fatigans*, Wiedemann, 1828.

*Culex astuans*, Wied., 1828.

„ *pallipes*, Meig., 1838.

„ *anxifer*, Coq. (Bigot), 1859.

*Heteronychia dolosa*, Arrib., 1896.

*Culex pungens*, Wied., 1828?

(Wiedemann, Auss. Zweif. Ins. 10, 1828; Theobald, Monog. Culicid. ii. 151, 1901, iii. 225, 1903, v. 383, 1910.)

*Localities.* Seychelles: Port Victoria, Mahé (Dr Denman); Mahé (Mr Hugh Scott).



*General Distribution.* India, Africa, South Europe, Australia, South America, West Indies and most Oceanic Islands.

The common Brown Household Mosquito of the tropics and sub-tropics, its place taken in temperate and sub-Arctic regions by *Culex pipiens*, Linnæus.

Genus TÆNIORHYNCHUS, Arribalzaga, 1891.

*Panoplites*, Theobald, Monog. Culicid., ii. 173, 1901; iii. 269, 1903; iv. 494, 1907; v. 446, 1910. *Mansonia*, Blanchard, Compt. Rend. Soc. Biol., p. 1046, t. liii, 1901.

7. *Species?* (probably new).

Some spirit specimens (4), badly damaged and even the wings mostly denuded, with the following note :—"Mahé, Seychelles, cultivated low country (Barbarons). Given by Jules Michel, 1908."

The bracket-like wing scales remaining are longer than in any species I have seen, and the apical palpal segment is longer. A large mosquito 6 mm. long, certainly undescribed, and may possibly belong to a new genus near *Tæniorhynchus*.

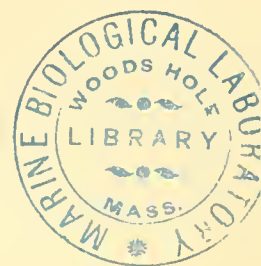


Fig. 8. *Pseudoficalbia pandani*, nov. sp. A. Male. B. Female.

Genus PSEUDOFICALBIA, nov. gen.

Head covered with flat scales and some upright forked scales; palpi short in ♂ and ♀; proboscis in both sexes slightly swollen apically; ♀ antennæ pilose, ♂ antennæ plumose.

Thorax with long thin narrow-curved scales; scutellum with three patches of small flat scales and some small narrow-curved ones, on the posterior border; three border bristles to the mid lobe.



Male genitalia with short broad basal lobes and longish claspers.

Ungues of ♂ equal, simple and small on fore and hind legs, unequal and simple on mid pair. Fork-cells moderately long; wing scales as in *Mimomyia*.

This genus comes between *Ficalbia* and *Mimomyia*. From the former it can be told by the wing scales, and from the latter by the flat scutellar scales, which in *Mimomyia* are narrow-curved ones; the ♂ proboscis is also very different to that in *Mimomyia*.

Two other species must be placed in this genus, namely *Ficalbia inornata*, Theob.\*, from the Transvaal, and *Ficalbia nigripes*, Theob.†, from Sierra Leone.

8. *Pseudoficalbia pandani*, nov. sp. (Plate 4, fig. 4 and Text-figs. 8—10).

Head black; thorax bright ochreous with two dark parallel lines behind; scutellum ochreous with three black spots; metanotum ochreous with two parallel darker lines; pleuræ pale. Abdomen unbanded or with a variable number of white basal bands, venter pale. Legs uniformly dark brown.



Fig. 9. *Pseudoficalbia pandani*, nov. sp. A. Head of ♂. B. Head of ♀.

♀ (Text-fig. 8 B). Head (Text-fig. 9 B) clothed with rather large flat black scales and a few black upright forked scales and with black chætæ; clypeus and palpi black, proboscis black, except apex which is pale; antennæ deep brown, basal segment black.

Thorax bright ochreous with scattered long black scales which form two distinct dark parallel lines behind, some smaller golden curved scales underlying them, chætæ long and black; scutellum pale ochreous with three patches of small rather elongate flat black scales and black border bristles, three to each lobe; metanotum ochreous with two broad darker lines; pleuræ pale ochreous.

Abdomen black, the fourth, fifth and sixth segments with narrow basal white bands; apex with numerous golden and brown bristles; posterior border bristles dark; venter pale.

\* Theobald, The Entomologist, xli. 108, 1908.

† Monog. Culicid. iv. 578, 1907.

Legs deep blackish-brown with bronzy sheen, coxæ and trochanters ochreous, the former with black bristles; ungues small, equal and simple.

Wings (Text-fig. 10) with brown scales, outer costal border dark and spinose, first submarginal cell shorter and slightly narrower than the second posterior cell, its base nearer the apex of the wing, its stem not quite one and a half times the length of the cell; stem of the second posterior cell slightly longer than the cell; posterior cross-vein slightly longer than the mid, about half its own length distant from it; the sixth long vein bends abruptly to the costa and has only a single row of scales.

Halteres with pale stem and fuscous knob.

*Length.* 2.5 to 3 mm.

♂ (Text-fig. 8 A). Head (Text-fig. 9 A), thorax and abdomen similar to the ♀, but the abdominal banding indistinct. Palpi and proboscis black, the latter slightly swollen apically, not quite so much as in the ♀; palpi very short, clavate with a few black bristles; antennæ plumose banded grey and brown, hairs flaxen brown, the brown area of each segment nearly twice as long as the grey.

Wings (Text-fig. 10 c) with similar scales to the ♀; fork-cells short, the first slightly shorter and narrower than the second, its base the nearer to the apex of the wing, its stem nearly twice as long as the cell; stem of the second fork-cell about one-third longer than the cell; supernumerary cross-vein slightly angulated, the posterior about the same length as the mid and about its own length distant from it; the first and second long veins lie close together.

Legs as in ♀; fore ungues small, equal and simple, the mid unequal, simple, one curved, one small and straight; hind equal and simple, small.

Genitalia (Plate 4, fig. 4) with short, thick basal lobes, claspers long and acuminate; setiferous lobe dark, with some long fine hairs and a single pale long sword-like bristle.

*Length.* 3.5 mm.

*Locality.* Seychelles: Mahé, 1908—9.

*Observations.* Described from a series of 16 ♀s and 4 ♂s. The following notes are appended:—"Mahé, forest behind Cascade about 1500 feet, II. 1909. Caught in morning flying amongst dead leaves of *Pandanus hornei* on ground under a large group of those trees; never noticed them try to bite"; "Mahé, Jan. 1907, calm and wetter season. Swept in daytime from low herbage at places near sea level (Anonyme Island and Anse aux

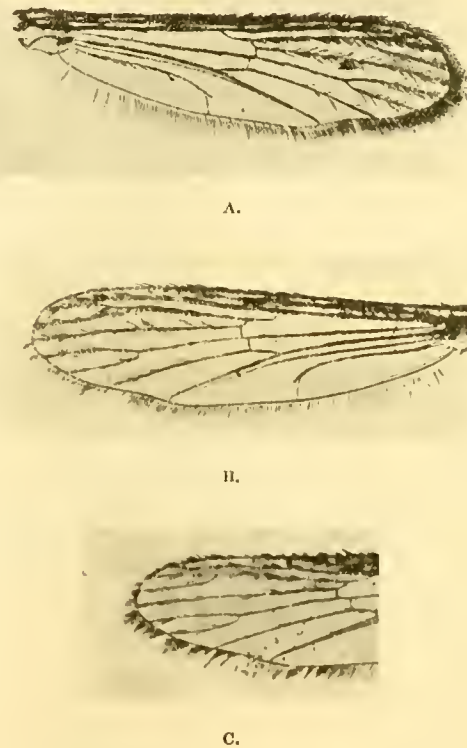


Fig. 10. *Pseudoficalbia pandani*, nov. sp.; A, wing of ♀ with banded abdomen; B, wing of ♀ with abdomen scarcely banded; C, apex of ♂ wing.



Pins coast marsh)"; "Mahé, Mare aux Cochons, 1500 feet. From swampy place with half dried up pools amongst dead *Pandanus Hornei* leaves. Caught in daytime."

Quite a distinct small species which, however, bears a strong resemblance to *Pseudoficalbia nepenthes*. The marked difference in the venation can, however, be seen by comparing the photos of the wings. Probably it breeds in water collected in the bases of *Pandanus* leaves.

There is some colour variation in the series. In some the abdominal banding is very faint, frequently due to partial scale denudation, however, and in others the metanotum varies, two marked varieties being the following:—

Variety I. Metanotum all ochreous, the black knobs of the halteres showing as two black spots over it.

Variety II. Metanotum all black, abdomen with only trace of banding.

It comes very near *Pseudoficalbia nigripes*, Theobald (Monog. Culicid. iv. 578) which I placed in error in the genus *Ficalbia*, Theob. It can be told at once from it by the long dark thoracic scales.

9. *Pseudoficalbia nepenthes*, nov. sp. (Plate 4, figs. 5, 6 and Text-figs. 11, 12).

Head black, thorax bright ochreous with indistinct dark lines and three black spots on the pale scutellum; metanotum pale ochreous. Abdomen black with basal white bands,



Fig. 11. *Pseudoficalbia nepenthes*, nov. sp., ♀; wing.

except on the first and second segments. Legs bronzy black, unbanded. Proboscis black, slightly swollen in ♀ towards the apex; palpi and antennæ black. Wings with dark veins.

♀. Head clothed with flat black scales and black upright forked scales and black chætæ; clypeus and proboscis black, the latter swollen towards the apex; palpi very small, black; antennæ deep brown, basal segment black, a few small black flat scales. Eyes violet. Thorax bright ochreous with scattered long thin black scales and long black bristles which have golden apices in certain lights; on the integument can be seen three slightly darker parallel longitudinal lines; scutellum bright ochreous with three patches of small flat black scales, forming three marked dark spots; posterior border bristles black, four large ones to the mid lobe, three large and some smaller ones to the lateral lobes. Metanotum bright ochreous; pleuræ bright ochreous.

Abdomen black, the segments except the first and second with basal white bands; posterior border bristles golden and brown, many golden bristles apically; venter black and white banded.

Legs black with bronzy reflections and with golden bristles; ungues small.

Wings (Text-fig. 11) with typical large brown Mimomyian scales, costa dark, spiny; first submarginal cell not quite as long and narrower than the second posterior cell, its stem not quite twice as long as the cell, base of the cell nearer the apex of the wing than that of the second posterior cell, stem of the latter slightly longer than the cell; posterior cross-vein rather more than its own length distant from the mid cross-vein; sixth vein abruptly bent at the apex which is devoid of scales, from the bend scales project outwards.

Halteres with pale stem and black knob.

*Length.* 3 mm.

*Locality.* Seychelles: Silhouette, 1908.

*Observations.* Described from a single perfect ♀, taken in highest damp forests (over 2000 ft.), 29. VII. 1908, found sitting in *Nepenthes* pitcher which contained Culicid larvæ. It is a very marked black and ochreous species, with large black thin thoracic scales and slightly longer fork-cells than in the previous species. The larvæ described here taken from the pitchers of *Nepenthes* upon which the adult was caught may belong to this species.

*Larva* (Text-fig. 12 A) 4 to 4.5 mm. long. Head (Plate 4, fig. 6 A) longer than broad; antennæ (Plate 4, fig. 6 C) rather short and thick, of two segments, ending in three rather broad spines with tapering apices and a small foliate plate; labial plate (Plate 4, fig. 6 B) nearly twice as long as broad; frontal prominence (Plate 4, fig. 6 D) with two short, broad acuminate processes and two long chætæ projecting forwards behind them; mandibles (Plate 4, fig. 6 C) serrated as shown in figure.

Thorax broader than the head, but only a little longer, with a pair of long dark bristles on each side in front, followed by two groups of three bristles on each side, three lateral tufts arising from a distinct prominence, also chætæ on the dorsum. The first two abdominal segments have each a pair of long dark chætæ laterally, the third to sixth a single dark chæta on each side, seventh and eighth apparently nude; siphon (Plate 4, fig. 5 A) very short and thick, no longer than the terminal segment (Plate 4, fig. 5 B) which has two tufts of long brown hairs and two pairs of globular processes.

*Pupa* (Text-fig. 12 B), 4 mm. Siphons rather short of marked form (*vide* figure),



Fig. 12. *Pseudoficalbia nepenthes*, nov. sp.; A, larva; B, pupa.

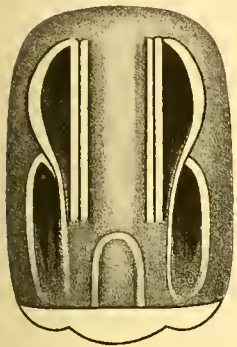
anal plates short and broad, flat and overlapping, minutely serrated at their borders, with a dark spot on the middle of the posterior borders and a marked central rib; a single long black lateral chæta on each of the first three segments, a pair of ventral ones on each side of the fourth and fifth, a single one on the remainder, on the fourth two long chætæ on the posterior border on each side, one on each side of the fifth and a very short one on each side of the sixth; a tuft of short chætæ on the dorsum of the first.

This larva and pupa taken in *Nepenthes* pitchers where *Pseudoficalbia nepenthes* was caught may belong to that species, Mr Scott informs me. It is a marked type of larva.

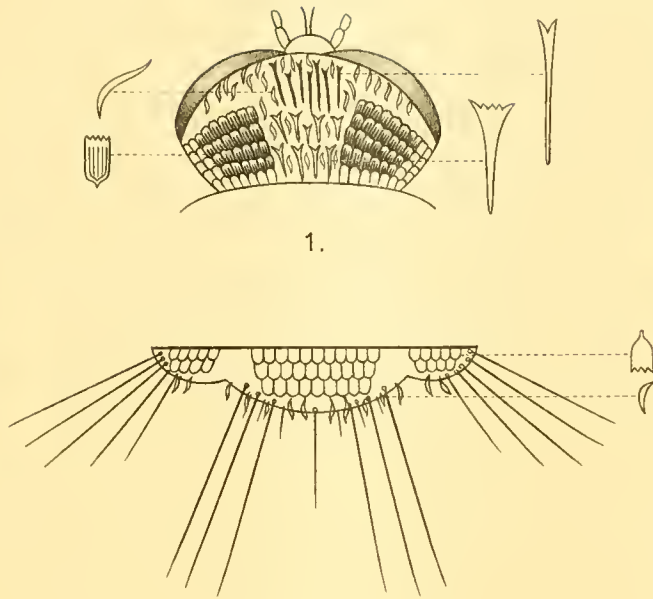
#### EXPLANATION OF PLATE 4.

1. *Reedomyia seychellensis*, nov. sp., ♀; head.
2. *Reedomyia seychellensis*, nov. sp., ♀; scutellum.
3. *Culex scottii*, nov. sp., ♀; thoracic adornment.
4. *Pseudoficalbia pandani*, nov. sp., ♂; genitalia.
5. *Pseudoficalbia nepenthes*, nov. sp., larva; *a*, larval siphon and terminal segment; (hairs cut off); *b*, the same (reduced) showing normal hairs.
6. *Pseudoficalbia nepenthes*, nov. sp., larva; *a*, head; *b*, labial plate; *c*, antenna; *d*, frontal prominence; *e*, mandible.



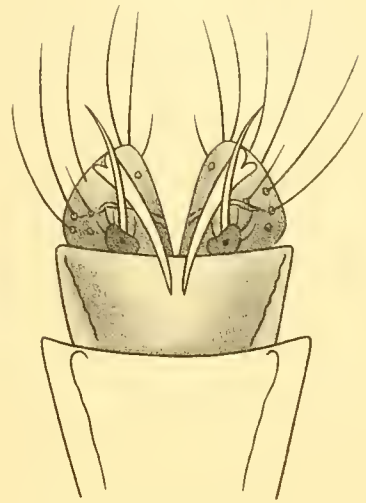


3.



1.

2.



4.



5b.



5a.



6d.



6c.



6a.



6b.



6e.