No. XIV.—DIPTERA, TIPULIDÆ.

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(Plates 10 and 11.)

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

Read 1st February 1912.

The collections here described comprise 24 or 25 species taken in the Seychelles by Mr Hugh Scott, together with 3 collected by Mr J. C. F. Fryer in Aldabra. Those taken in the Seychelles were practically all obtained in the high endemic mountain forests, which will account for the very large proportion of new species. One would, however, naturally expect the Tipulid Fauna of the Seychelles to be of considerable interest, more particularly as no member of the family has until now been recorded as occurring in those islands. Such expectations have been fully realised, for of the 27 species described in the sequel no less than 23 appear to be new to science.

Taken together, the membership in the different groups is as follows:

Limnobiini 10 (11?). Rhamphidiini 8. Eriopterini 5. Anisomerini 4.

It will be seen at once from the above that the Limnophilini and the Tipulidæ longipalpi are quite unrepresented. This is remarkable, as Limnophila, Tipula, and Pachyrrhina are usually well represented in the tropics. The common tropical genus Eriocera too is badly represented, and the two species here assigned to it approximate to Penthoptera in size and in their somewhat pubescent wings; it may be that the genus Penthoptera will have to be given up. Penthoptera only differs from Eriocera in that its members have hairy wings, and the two Seychelles species seem to be intermediate, since the wings are only slightly hairy at the tip. They are smaller than most of the species of Eriocera. Apart from these rather surprising negative characters, the fauna shows some interesting features. Thaumastoptera aldabrensis, if correctly placed, is the second species of the genus, the other being European; Anisomera had only been recorded from Europe and America; Thrypticomyia and Tasiocera only from

Australia. All the species here described as new, with the exception of *Geranomyia immaculata*, fit fairly well into existing genera. The most interesting insects in the collection however are the *Ceratocheilus* and the two species of *Styringomyia*; these have also proved of value indirectly, since in determining them I have been able to clear up some interesting points of synonymy.

The relationships of the fauna as a whole are necessarily not very evident, since the collection of Tipulidæ in the tropics has been so much neglected, owing no doubt to their extreme fragility. There seems however to be a closer connection with Africa than with India. The various relationships can best be expressed by means of a table:

Seychelles Species		Nearest Ally	
Name	External Distribution	Name	Distribution
Dicranomyia tipulipes	S. Africa	D. tangentialis, D. consimilis	E. Africa
D. gardineri	W. and S.E. Africa	? D. vicarians	New Zealand (Antarctic)
D. spadicithorax	La company of the state of	D. pulchra D. afra	Java Caffraria
$Thrypticomy ia\ seychellens is$		T. auripennis	E. Australia
Limnobia rhizosema	Kilimandjaro, E. Africa		
L. mahensis	= plantage = to 90 mon	L. umbrata	Java; Singapore; Taiping; E. Africa (Mombasa)
Teucholabis flavonotata	Africa (L. Victoria Nyanza)	An undescribed species	Mashonaland
Elephantomyia insularis	of an opposite 22-male	? E. wahlbergi	Caffraria
Ceratocheilus seychellarum	a il-demon <u>a do</u> cultur off	? Toxorrhina madagas- cariensis Cerat. cornigerum	Madagascar Kamerun
Styringomyia annulipes	Madagascar	S. crassicosta S. ceylonica	Africa India; Ceylon; Straits Settlements
Mongoma pennipes	Borneo; Ceylon; Semarang	ar add and a small to	and of the state

In regard to some of the generic names used, explanation is necessary. Some writers are following Hendel and Coquillet in adopting the nomina nuda—for such they are for practical purposes—of "Meigen's 1800 paper." The present writer, in common with many of our leading dipterists, refuses to accept these, for other reasons besides the one given. Secondly, the name Furcomyia, substituted by Coquillet for Dicranomyia, is rejected. The writer considers that its validity dates from 1910, as Meigen merely quoted it as a manuscript name given by Megerle, and neither adopted it nor gave any description. Dicranomyia therefore takes precedence. The same argument will apply to "Marginomyia" and Dicranoptycha. Limonia (Meigen 1803) has sometimes been used for Limnobia (Meigen 1818), but is not adopted here, as the

first description (of *Limonia*) is totally inadequate, and, moreover, Meigen states that the antennæ are 16-jointed, which is not the case in the typical species of his *Limnobia*. Thus there seems no necessity to reject this well-established name. *Eriocera* is used in preference to *Caloptera* or *Evanioptera*; *Caloptera* was published without description; *Evanioptera*, as far as I can ascertain, two or three months later than *Eriocera*.

Sub-fam. Limnobiinæ. Group Limnobiini.

Genus Dicranomyia Stephens, Cat. Brit. Ins., ii. 243 (1829).

1. Dicranomyia tipulipes Karsch, Ent. Nachr., xii. 51, 1 (1886). (Plate 10, fig. 1, wing; plate 11, fig. 1, & genitalia.)

Length ♂ body 5 mm., ♀ body 6 mm.

" " wing 6 mm., " wing 7 mm.

These specimens are smaller than the type, as Karsch gives a wing measurement of 8.5 mm. They also differ in the absence of a yellow margin to the median band of the thorax, and in the fact that the 6th longitudinal vein is not markedly paler than the rest. It is possible therefore that they may prove eventually to be distinct from *D. tipulipes*.

I have failed to find any real difference between D. tipulipes Karsch, and D. consimilis Bergroth, by comparing the descriptions, and think it probable that they and the Seychelles specimens are merely forms of one species. The chief distinguishing character given by Bergroth, viz., the length of the small cross-vein, is variable in the specimens before me; in three the submarginal cell and discal cell actually touch; in the others there is a short cross-vein separating them. The present specimens all have a blackish spot at the base of the basal cells, which is mentioned by Karsch but not by Bergroth. Karsch's statement that D. tipulipes has 15-jointed antennæ is probably a mistake; in all the Seychelles specimens the antennæ are normal. Karsch does not mention the blackish tips of the tibiæ. D. tangentialis Speiser, from Kilimandjaro, is also very closely allied, though perhaps distinct.

Loc. Seychelles. Silhouette: Mont Pot-à-eau, $2 \, \circ$. Mahé: Forêt Noire, $1 \, \circ$; Mare aux Cochons, about 1500 feet, $1 \, \circ$; Cascade Estate, 800—1500 ft., $1 \, \circ$, $1 \, \circ$. Also South Africa: Pungo Andongo (Karsch); Cape Town (L. Péringuey); Caffraria (D. consimilis Bergroth).

2. Dicranomyia gardineri, sp. n. (Plate 10, fig. 2, wing; plate 11, fig. 2, 3 genitalia.)

Cinereo-fusca, thorace fusco-trilineato, alis parum infuscatis et maculatis, venulâ transversâ parvâ, brevi.

Head: antennæ dark, joints about as long as broad. Thorax greyish, a median and two smaller lateral brown stripes on mesonotum before suture, two brown spots on mesonotum behind suture. Legs testaceous, tips of femora and tibiæ indistinctly darker. Wings faintly fuscous-tinged; dark spots at base of basal cells, at base of præfurca, and on the marginal cross-vein (the stigma); sometimes also on first longitudinal and at apex of præfurca. Veins dark; first longitudinal sometimes paler.

Mediastinal vein reaching costa almost at origin of præfurca, subcostal cross-vein close to its tip; first longitudinal vein sharply bent up to costa near its tip, marginal cross-vein nearly in a line with the bent portion, at about $\frac{1}{3}$ the length of the submarginal cell; submarginal cell slightly expanded at apex, nearly twice as long as præfurca. Knob of halteres grey, stalk whitish ochreous. Abdomen fuscous.

Length of body 4.5—6 mm.

" wing 5—7 mm.

This species varies considerably in size and in the distinctness and amount of the dark markings on the wings. It appears to come nearest to *D. vicarians* Schiner, though there may be no real relationship. The two are certainly quite distinct.

Loc. Seychelles. Mahé: Cascade Estate, 800—1500 ft., 9 \$, 7 \$; Forêt Noire, 2 \$; forest behind Trois Frères, 2000 ft., 1 \$, 1 \$. Also Africa: the following are in the British Museum; Obuasi, Ashanti, 7. vi. 1907, 1 \$ (Dr W. M. Graham); Mt. Chirinda (S. Rhodesia) 3000 ft., 31. v. 1911, 1 \$, and 12. vi. 1911, 1 \$, 1 \$ (C. F. M. Swynnerton).

2 a. Dicranomyia sp.

A single immature specimen (3). It closely resembles D. seychellarum in neuration and colouring, but the wings are entirely unspotted. There are also differences in the genitalia. The absence of spots on the wings may be due to its immature state.

Loc. Seychelles. Mahé: Cascade Estate, 800—1500 ft.

3. Dicranomyia spadicithorax, sp. n. ♀.

Fusca, thorace supra fusco-spadice, femoribus ad basin ochreis, alis marmoratis et maculatis, antennarum articulis moniliformibus et maculatis.

Q. Head greyish, nearly globular; eyes, rostrum and neck black. slightly longer than head and rostrum together, with the scape fuscous, first joint curved, more than twice as long as second; joints of flagellum moniliform, without any sign of pectination, but rather broader than long, 3rd, 5th, 7th, 9th, 11th, 13th and 14th brown, 4th, 6th, 8th, 10th and 12th light ochreous. Rostrum somewhat produced, about as long as the head. Neck rather long and narrow. Thorax with a large chocolate-brown patch above, extending downwards to the level of the insertion of the wings, bordered by a fine white line; pleuræ pale ochreous with three chocolate-brown longitudinal stripes: one broad and median, the others narrow and interrupted, just below the base of the wings and along the base of the coxæ. Legs very dark brown, basal two-thirds of femora pale ochreous; middle tibiæ paler brown in the middle. Wings pale ochreous, mottled over the whole surface with light grey; all the cross-veins more or less infuscated; blackish spots distributed as follows: one or two on the first longitudinal vein; at the apex of the mediastinal vein; at the base of the præfurca; at the apex of the præfurca (the largest and most conspicuous); on the marginal cross-vein; at the apex of the anterior branch of the second longitudinal vein, of the discal cell and of the seventh longitudinal. Tip of mediastinal vein a little beyond the origin of the præfurca, the subcostal cross-vein close to this tip; marginal cross-vein near the tip of the first longitudinal, which is bent sharply up towards the costa at about 4 of the length of the wing; second posterior cell

very narrow at base. Halteres pale ochreous, knob marked with brown. Abdomen brown above, pale beneath, with one dark brown lateral line; base and sides of first segment dark chocolate-brown.

Length of body 7 mm.

" wing 6.5 mm.

This species is closely allied by its moniliform antennæ and wing-markings to Rhipidia afra Bergroth, but differs markedly in its smaller wings and in the coloration of the thorax. It shows still greater resemblance to R. pulchra Meijere, from Java. The chief differences are that in R. pulchra the antennæ are unspotted (?), the pleuræ have only two brown stripes, the abdomen is pale above and below, and the bases of the tibiæ as well as of the femora are ochreous; the dark spot on the 7th longitudinal vein is near but not at the apex.

Loc. Seychelles. Mahé: 49 from Cascade Estate, 1909.

Meijere has recently (Tijd. v. Ent., 1911, p. 27) recorded the male of R. pulchra and now places the species in Dicranomyia, and without doubt the present species must be placed in the same genus. I consider, however, that these species, and others I have seen from Africa, render it advisable to sink Rhipidia as at most a subgenus of Dicranomyia. The antennæ of the species of Rhipidia seem to show insensible gradations from being quite simple to being strongly pectinate. The British Museum possesses \mathfrak{F} and \mathfrak{P} specimens of R. afra from Uganda, and the antennæ are not pectinate in either sex, so that this species, at least, is a Dicranomyia.

Genus Thrypticomyia Skuse, Proc. Linn. Soc. N. S. Wales, ser. 2, iv. 774 (1890).

4. Thrypticomyia seychellensis, sp. n. (Plate 10, fig. 3, wing; plate 11, fig. 3, 3 genitalia.)

Fusca, thorace rufescente, tarsis albis; alis hyalinis, stigmate infuscato, brevi.

39. Head blackish, antennæ dark fuscous. Thorax rufescent ochreous, more fuscous above, almost globular in shape. Legs dark fuscous; coxæ reddish ochreous, femora lighter towards the base, tarsi with apical $\frac{3}{5}$ of metatarsus, and the 2nd and 3rd joints white; 4th and 5th, sometimes also part of 3rd pale brown, claws dark. Wings hyaline, tinged with brown on the outer half, with violet or coppery reflections; stigma distinct, short, fuscous; veins and margins fringed with hairs; usually the subcostal cross-vein is just before, and the tip of the mediastinal vein a little after, the origin of the præfurca; marginal cross-vein about in the middle of the stigma, placed some distance before the tip of the first longitudinal vein, which ends freely in the wing; supernumerary cross-vein usually precedes marginal only by a distance about equal to its own length, both it and the marginal cross-vein are sometimes unpigmented, and so may appear at first sight to be absent; great cross-vein about middle of discal cell. Halteres dark fuscous, base of stalk ochreous. Abdomen dark fuscous, lighter below.

 \circ with the abdomen markedly contracted at base.

Length of body 4-6 mm.

" wing 5—7 mm.

legs 13—17 mm.

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This species is very close to *T. auripennis*, from Sydney, N.S.W. The chief differences may be tabulated as follows (the characters of *T. auripennis* are drawn from 2 specimens in the British Museum):

T. seychellensis.

Thorax rufescent ochreous.

Apical $\frac{3}{5}$ or more of metatarsus white.

Apical tarsal joints light brown.

Tip of mediastinal vein usually beyond origin of præfurca.

Stigma shorter.

Supernumerary cross-vein preceding marginal by a distance usually not much greater than its own length.

Halteres shorter.

T. auripennis.

Thorax light ochreous brown. Half of metatarsus white. Apical tarsal joints white.

Tip of mediastinal vein opposite origin of præfurca.

Stigma longer.

Supernumerary cross-vein preceding marginal by a distance several times its own length.

Halteres longer.

I have seen two species from Ceylon, which though they do not invalidate the genus differ in several respects from both *T. seychellensis* and *T. auripennis* (vide Ann. Mag. Nat. Hist., (8) viii. 1911, p. 58). Brunetti (Rec. Ind. Mus., vol. vi. p. 270) considers that *Thrypticomyia* is untenable. Admittedly it stands very close to *Dicranomyia*.

Loc. Seychelles. Found in shady places in the mountain-forests; a number of specimens often hang by their front tarsi in rows, suspended from threads of webs stretched between bushes etc. (See Scott's introductory paper, vol. XIV. of these Transactions, p. 32.) Mahé: Cascade Estate, 800—1500 ft., 143, 134; Morne Seychellois, over 1500 ft., 13; Morne Blanc, 14; above Port Glaud, 500—1000 ft., 13. Silhouette: near Mont Pot-à-eau, 1500 ft., 83, 64.

Genus Geranomyia Haliday, Ent. Mag., i. 154 (1833).

Subgenus Monophana, n. Palpi uniarticulati. Venula transversa subcostalis ab apice venæ auxiliaris remota; vena longitudinalis prima ad costam non attingens.

- 5. Geranomyia (Monophana) immaculata, sp. n. (Plate 10, fig. 4, wing.) Rufescens, pedibus testaceis, alis immaculatis, venis ochreis.
- P. Head with collar and rostrum black, eyes outlined with whitish, antennæ dark brown, joints of flagellum about as long as broad, rostrum shorter than thorax. Thorax reddish ochreous with a darker central stripe above. Legs testaceous, trochanters with minute black dots, femora somewhat darker at tip. Wings hyaline, stigma absent, veins ochreous. Mediastinal vein reaching costa at origin of præfurca, subcostal cross-vein placed far before the tip, a distance greater than the length of the præfurca; first longitudinal vein not reaching costa, marginal cross-vein at its tip; submarginal cell $2\frac{1}{2}$ times the length of the præfurca, slightly contracted at apex. Halteres reddish ochreous. Abdomen fuscous.

This species has a facies quite unlike that of the European Geranomyia, though it must be included in that genus at present.

Length of body 5 mm.

- " wing 5.5 mm.
- " rostrum 1.2 mm.

Loc. Aldabra, 1 \copp.

Genus Limnobia Meigen, Syst. Beschr., i. 116 (1818). (Limonia Meigen, Illiger's Mag., ii. 262, 1803.)

6. Limnobia rhizosema Speiser (Limonia), Wiss. Ergebnisse der Schwedischen Zool. Exp. nach dem Kilimandjaro, ii. 10 (Diptera) 4, p. 48 (1909).

Dr Speiser has kindly confirmed my determination of this species. The Seychelles specimens differ from the type in the position of the dark band of the femora: typically this is apical, but in all the Seychelles specimens it is just before the apex. In one of Speiser's specimens however this was the case, and he does not consider the difference to be specific.

- Loc. Seychelles. From the mountain-forests. Mahé: Morne Blanc, 1 \cop; Forêt Noire, 1 \cap; Cascade Estate, 3 \cap, 1 \cap. Silhouette: Mont Pot-à-eau, 1 \cap, 1 \cap; Plateau of Mare aux Cochons, 1 \cap. Also East Africa, Kilimandjaro (Swedish Zool. Exp.).
- 7. Limnobia mahensis, sp. n. (Plate 10, fig. 5, wing; plate 11, fig. 4, 3 genitalia.)
 Ochrea, infuscata, pleuris fusco-unilineatis, alis subfuscis, fusco-maculatis; antennarum articulis aeque longis ac latis.
- Head dark; antennæ alike in both sexes, hardly as long as thorax, dark brownish, joints about as long as broad. Thorax rather bright brownish ochreous, with a dark fuscous stripe along the pleuræ; a median stripe on mesonotum in front of suture, 2 spots behind suture and a spot on metanotum darker brownish. Legs testaceous, tips of femora somewhat darker. Wings light fuscous, darker fuscous spots at the base and apex of the præfurca and on the marginal cross-vein, other cross-veins infuscated. Mediastinal vein reaching costa at the level of the middle of the præfurca, subcostal cross-vein at its tip; præfurca more or less distinctly angulated, sometimes emitting a vein-stump towards the base of the wing; tip of first longitudinal vein sharply bent up towards the costa, nearly in a line with the marginal cross-vein; submarginal cell hardly half as long again as the præfurca. Halteres fuscous, base of stem ochreous. Abdomen fuscous above, brownish ochreous below, genitalia dark brownish.

Length of body 4.5—5.5 mm.

" wing 5·5—6·5 mm.

This species has a very *Dicranomyia*-like appearance.

Loc. Seychelles. Mahé: Mare aux Cochons, 1500 ft., 5 \$, 4 \$; Cascade Estate, 800—1500 ft., 3 \$, 3 \$.

Dicranomyia umbrata Meij. (Tijd. v. Ent., 1911, p. 25) from Java is evidently a true Limnobia, and very closely allied to L. mahensis, but the thorax is rather darker, the angulation of the præfurca is imperceptible, and the genitalia differ (I have compared

mounts of the genitalia of the two species). Specimens of *L. umbrata* from Singapore, Taiping (Straits Settlements), and Mombasa (E. Africa), are in the British Museum Collection.

8. Limnobia magnicauda, sp. n. (Plate 10, fig. 6, wing; plate 11, fig. 5, 3 genitalia.)

Ochrea, infuscata, pleuris fusco-unilineatis, alis fuscis, immaculatis; antennarum articulis duplo longioribus quam latis.

Closely resembles L. mahensis in form and colour of body, but differs as follows: Head: antennæ in β longer than head and thorax together, joints ovate, quite twice as long as broad; in β shorter, joints shorter. Thorax: markings as in L. mahensis, but indistinct. Legs: tips of femora not darker than the rest. Wings darker than in L. mahensis, unspotted except for the stigma, which is situate on the marginal crossvein; præfurca not angulated, gently curved at the base. Halteres fuscous, base of stem ochreous. Genitalia large, ochreous with black hooks.

Length of body 5 mm.

" wing 5 mm.

Loc. Seychelles. Mahé: high forest of Morne Blanc and Pilot, 13; Morne Seychellois, over 1500 ft., 13; Mare aux Cochons, 1500 ft., 23, 12; Cascade Estate, 800—1500 ft., 13.

9. Limnobia iridescens, sp. n.

Infuscata, thorace flavo-signato, alis iridescentibus, halteribus albis.

Q. Differs from L. magnicauda as follows: mesonotum in front of suture orange, except for a central posterior fuscous spot, behind suture dark fuscous; apices of femora somewhat thicker and darker; wings with brilliant purple reflections except at the tip, which is coppery (these reflections can be seen though much less distinctly in L. magnicauda, but in that species are chiefly coppery, with very little purple); halteres entirely translucent white.

Length of body 4 mm.

,, wing 5 mm.

Loc. Seychelles. Mahé: Cascade Estate, 800—1500 ft., 1 \circ .

10. Limnobia thomasseti, sp. n. (Plate 10, fig. 7, wing; plate 11, fig. 6, 3 genitalia.)

Ochrea, pleuris ochreis, haud lineatis; alis hyalinis, stigmate distincto, præfurcâ arcuatâ, cellulâ submarginali præfurcâ duplo longiore.

39. Resembles L. magnicauda, but larger, more ochreous, and with the markings on the back of the thorax more distinct; no dark stripe on the pleure. Head greyish, eyes outlined with white. Joints of antennæ ovate, but shorter than in L. magnicauda, almost moniliform; antennæ in both sexes shorter than thorax. Legs testaceous, tips of femora ochreous, preceded by a slightly darker ring. Wings hyaline, only faintly tinged with fuscous, stigma distinct. Tip of mediastinal vein ending in costa just before the level of the base of the submarginal cell; præfurca strongly curved at base; all the cells

round the tip of the wing rather long and narrow, submarginal almost twice as long as præfurca. *Halteres* fuscous, base of stem ochreous. *Genitalia* rather large, ochreous with black hooks.

Length of body 6 mm.

,, wing 6.5 mm.

A similar but distinct species, of which there are specimens in the British Museum, occurs in Eastern India.

Loc. Seychelles. Félicité, Dec. 1908, 1 \$\(\delta\), 1 \$\(\delta\). Mahé: Mare aux Cochons, 1500 ft., 1 \$\(\delta\).

Group Rhamphidiini.

Genus Elephantomyia Osten-Sacken, Proc. Acad. Philad., 1859, p. 220.

11. Elephantomyia insularis, sp. n. ♀.

Ochracea, segmentis abdominis fusco-marginatis; alis maculatis, stigmate alarum infuscato.

Q. Head including antennæ and rostrum dark fuscous; eyes black. Rostrum as long as whole body, the palps inserted very close to its tip. Collar nearly as long as head. Thorax dark brownish ochreous, with very indistinct slightly darker markings; pleuræ lighter ochreous. Legs except coxæ dark brown; femora very slightly thicker and darker at apex. Wings faintly brownish, spotted with brown at the base of the præfurca and on the cross-veins; stigma opaque, brown. Mediastinal vein entering costa just before the level of the great cross-vein; subcostal cross-vein almost at its tip; no marginal cross-vein; the three veins arising from the discal cell equidistant at base. Abdomen ochreous, the segments rather broadly fuscous-margined.

Length of body 8 mm.

- " wing 9 mm.
- ,, rostrum 8 mm.
- " legs 25 mm.

Loc. Seychelles. Mahé: Forêt Noire, X.—XI. 1908, 1 \copp.

Genus Ceratocheilus Wesché, Jour. Linn. Soc. London, Zool., xxx. 358 (1910).

Neostyringomyia Alexander, Can. Ent., xliv. 85 (1912).

12. Ceratocheilus seychellarum, sp. n.

Cinereo-fuscum, thorace 3-vittato; venulis transversis infuscatis.

39. Head: antennæ blackish; occiput whitish; eyes smaller in 9. Rostrum as long as abdomen. Neck long, black. Third joint of antennæ not much smaller than second. Thorax projecting over the neck, greyish, with a median and two lateral brown stripes, the laterals more posterior; pleuræ dark brown, edges of nota pale. Legs uniformly dark; front femora markedly thickened at apex, middle and posterior femora also thickened but to a less extent. Wings hyaline, base of second longitudinal vein, small

and great cross-veins, and apex of discal cell infuscated. *Halteres* entirely pale ochreous. *Abdomen* dark brown, the spaces between the terga ochreous.

Length of body 5 mm.

- " wing 4 mm.
- " rostrum 4 mm.

Loc. Seychelles. Mahé: 2 ♂, one from Forêt Noire, X.—XI. 1908; marshes on coastal plain at Anse aux Pins and Anse Royale, 1 ♀.

C. seychellarum is closely allied to C. cornigerum Speiser (winn-sampsoni Wesché) (vide Ann. Mag. Nat. Hist., ser. 8, viii. 1911, p. 279), differing chiefly as follows: the spots on the wings are fainter, and there is no spot on the 1st longitudinal vein midway between the base and the origin of the præfurca, which is well-marked in C. cornigerum; the rostrum is relatively longer and the second joint of the antenna smaller. From Toxorrhina madagascariensis Meunier, the present species is distinguished by the neuration (?), and by its smaller size and relatively longer rostrum; the third joint of the antennæ is a little larger. It is possible that these three may eventually prove to be only local forms of a rather variable species.

Genus Orimarga Osten-Sacken, Mon. N. Am. Dipt., iv. 120. x. (1869).

13. Orimarga scotti, sp. n. 3. (Plate 10, fig. 8, wing.)

Subrufescenti-cinerea, antennis palpisque nigris, pedibus fuscis; alis hyalinis, venulâ transversâ magnâ prope ortum præfurcæ insertâ, venulâ transversâ marginali ad apicem venæ longitudinalis primæ insertâ, cellulâ posteriore tertiâ pedunculo longiore.

3. Head blackish, antennæ and palpi black. First joint of antennæ three times the length of the second, joints of flagellum cylindrical, half as long again as broad. Rostrum half as long as head. Thorax greyish ochreous, more grey above. Legs light fuscous, femora except apex testaceous. Wings hyaline, stigma absent or very pale. Marginal cross-vein near apex of first longitudinal, which is indistinct and bent sharply up towards the costa; great cross-vein nearly opposite the origin of the præfurca; third posterior cell longer than its petiole, rounded at the base; submarginal and first posterior cells contracted at apex. Abdomen dark brownish ochreous, genitalia ochreous.

Length of body 6 mm.

", wing 6.5 mm.

Loc. Seychelles. Mahé: Cascade Estate, 800—1500 ft., 1909, 1 3.

14. Orimarga fryeri, sp. n. 3. (Plate 10, fig. 9, wing.)

Ochreo-cinerea, antennis palpisque nigris, pedibus testaceis; præfurcâ angulatâ, cellulâ posteriore tertiâ pedunculo breviore.

3. Head blackish, palpi black. Antennæ brownish fuscous, shorter than the thorax; joints of flagellum ovate, rather shortly hairy, half as long again as broad. Rostrum as long as head. Thorax and abdomen ochreous grey. Legs very slender, testaceous, apices of femora darker. Wings hyaline, stigma absent; præfurca rather

obtusely angulated near its origin, with a short stump of a vein extending from the angle towards the base of the wing; marginal cross-vein near apex of first longitudinal, which is distinct and gently curved into the costa; great cross-vein opposite origin of præfurca; third posterior cell very short, shorter than its petiole, contracted to a point at the base. *Halteres* pale ochreous.

Length of body 5 mm.

" wing 5 mm.

Loc. Aldabra, 1 3 at light.

Brunetti (Rec. Ind. Mus., vi. 1911, p. 280) describes a species of this genus from Borneo. It is smaller than either of the two described here.

Genus Thaumastoptera Mik, Verh. Z. B. Ges. Wien, xvi. 1866, p. 302.

15. Thaumastoptera aldabrensis, sp. n. (Plate 10, fig. 10, wing.)

Ochraceo-cinerea, pedibus testaceis, alis hyalinis, stigmate pallido; apice venæ auxiliaris post medium alæ extensâ, venulâ transversâ magnâ parum retractâ.

 \mathfrak{F} . Head dark; antennæ ochreous grey, as long as the thorax, joints of the flagellum ovate, twice as long as broad, with three or four long stiff hairs about their middle; palpi fuscous. Thorax ochreous grey above, pleuræ ochreous. Legs testaceous, coxæ ochreous. Wings hyaline, stigma distinct but pale; mediastinal vein reaching costa beyond middle of wing, at origin of præfurca, subcostal cross-vein placed far before its tip; marginal cross-vein at apex of stigma; second posterior cell nearly half as long again as its peduncle; great cross-vein carried back about $\frac{1}{3}$ of the distance between the small cross-vein and the origin of the præfurca. Halteres pale greyish. Abdomen ochreous grey in \mathfrak{F} , blackish in \mathfrak{F} .

Length of body 5 mm.

" wing 5 mm.

The other (European) species is light yellow, with black tips to the femora.

Loc. Aldabra, 1 3 and 1 2 at light.

Genus Teucholabis Osten-Sacken, Proc. Acad. Philad., 1859, p. 222.

16. Teucholabis flavonotata, sp. n. (Plate 10, fig. 11, wing; plate 11, fig. 7, & genitalia.)

Fusca, thorace flavolineato, abdomine flavonotato, femoribus fusco-annulatis; venulis transversis infuscatis, magnâ et parvâ lineam rectam fere formantibus, venulâ transversâ marginali post apicem venæ longitudinalis primæ in costam insertâ.

32. Head dark; proboscis about half as long as head; basal joint of antennæ large, flattened, ochreous. Thorax dark brown above, pleuræ more chocolate-coloured; a yellow line at level of wing-insertion, continuous round front of mesonotum; another along the bases of the coxæ; a transverse raised yellow bar across the posterior end of the metanotum. Legs testaceous, femora with a fuscous ring just before the apex, less conspicuous on the front legs. Wings pale brownish, cross-veins strongly infuscated, two

or three very indistinct darker clouds on the costa. Mediastinal vein reaching costa at origin of præfurca, just before middle of wing, subcostal cross-vein near its tip; first longitudinal vein ending in costa at about $\frac{4}{5}$ of wing, marginal cross-vein some distance beyond its tip; base of submarginal cell, great and small cross-veins forming one obtusely-angulated line at about $\frac{2}{3}$ of wing; first posterior cell contracted at apex. Halteres yellow. Abdomen dark fuscous, with yellow lateral spots on the apices of the segments, almost meeting in the middle; these spots are smaller and less yellow in the female.

Length of body 4 mm.

, wing 4.5 mm.

Loc. Seychelles. Mahé: forest behind Trois Frères, 2000 ft., 2 3, 1 2.

I have seen a damaged specimen from Lake Victoria Nyanza, and specimens of a very similar, but distinct, species from Salisbury, Mashonaland.

Genus Styringomyia Loew, Dipt. Beitr., i. 6 (1845). Idiophlebia Grünberg, Zool. Anz., xxvi. 524 (1903). Pycnocrepis Enderlein, Zool. Jahrb., Syst., xxxii. 65 (1912).

17. Styringomyia mahensis, sp. n. (Plate 11, fig. 8, 3 genitalia.)

Lutea, mesonoto nigro, antennis fusco-annulatis, pedibus annulis 4 latis nigris; alis parum infuscatis et nigropunctatis.

32. Head yellowish, front bristly, especially in 3; palpi rather dark, the three apical joints fuscous at their tip; second and third joints considerably widened apically. Antennæ yellowish, second joint black; joints of flagellum ovate, with whorls of bristles about their middle, spotted with fuscous, so that the antennæ have a ringed appearance. Prothorax fuscous yellowish. Mesothorax blackish above, except for a median yellow stripe behind the suture which extends across the scutellum; pleuræ and sternum clear yellow-ochreous. Legs yellow, rather densely covered with long hairs, and with scattered stronger bristles, with distinct black rings; four anterior femora with a narrow ring beyond the middle and a broader one just before the apex; on the hind femora the rings are similar but somewhat more conspicuous, and the anterior one is in the middle. All tibiæ with a broad ring before the middle and a narrower one at the apex. Tarsal joints blackish at the tips, and the whole of the last joint is dark (the tips of the tarsal joints are much lighter on the hind legs). Wings slightly infuscated, especially on the 5th longitudinal vein, with purplish reflections; a blackish spot on the small crossvein; the great cross-vein and the apex of the discal cell are marked with blackish, as is the axillary vein towards its tip; this tip is bent downwards to the hind margin almost at a right angle, and a stump of a vein arises from the angle. Halteres yellowish. Abdomen in 3 testaceous with narrow fuscous bands on the apices of the segments, in 2 mostly blackish (very likely owing to discoloration); genital segment in both sexes yellowish. Genitalia of 3 similar to those of S. crassicosta; the large upper lobes bear four terminaldorsal appendages, of which the inner pair are very long, membranous, and terminated by a long bristle; the outer pair are much shorter than the corresponding structures in S. crassicosta, being reduced almost to tubercles, but terminated, as in S. crassicosta, by a strong spine. Between the two large lobes, at the base, is a small unpaired structure

terminating in two spines, as in S. crassicosta. The upper lobes bear very complicated comb-like appendages on their ventral side. Beneath all is a ventral plate (operculum), which in this species is about as long as the upper lobes (excluding the terminal appendages); in S. crassicosta it is distinctly shorter. The operculum is trilobed, the lateral lobes shorter and smaller than the median and much more strongly chitinised (the z operculum in S. crassicosta is simple, not trilobed). The z operculum has the sides almost parallel, the end slightly emarginate; that of z crassicosta has the sides converging and the apical emargination rather more evident. The z genitalia in z gen

Length of body ♂ 7.5 mm. ♀ 5.5 mm.

- " wing ♂ 5·3 mm. ♀ 4·2 mm.
- ,, front leg & 10 mm.
- " middle leg 3 8 mm.
- " hind leg 3 9 mm.

Loc. Seychelles. Mahé: high forest of Morne Blanc and Pilot, X.-—XI. 1908, 10 ♂, 2 ♀.

18. Styringomyia annulipes Enderlein. (Plate 11, fig. 9, outline of ♀ operculum.)
Pycnocrepis annulipes Enderlein, Zool. Jahrb., Syst., xxxii. 65 (1912).

Ochracea, thorace obscure fusco-bilineato, alis hyalinis, nigro-punctatis, pedibus obscure 4-annulatis; antennis ex toto luteis.

 \mathfrak{F} ?. Very much like S. mahensis, but less yellow, and inclined to greyish ochreous. Antennæ all yellowish, second joint not darkened. Thorax brownish ochreous above, with two darker brown rather indistinct longitudinal streaks, the median space between these is paler ochreous. Legs with the darker rings in the same position as in S. mahensis, but greyish and almost confined to the upper surface; hardly perceptible on the hind legs. Last joint of tarsi blackish. Wings hyaline, spots as in S. mahensis, but smaller and less pronounced. Abdomen rather lighter than in the preceding species, lower lobe of $\mathfrak F$ genitalia almost as long as upper. In one $\mathfrak F$ (probably because not discoloured) the abdomen is coloured as in $\mathfrak F$. The genitalia, in both sexes, are almost exactly like those of S. mahensis, the only difference that I can see being that in S. annulipes the $\mathfrak F$ operculum is less deeply trilobed; this may perhaps be due to a difference in mounting. Notwithstanding the close resemblance in structural characters between the two species, I consider that they are well distinguished both by coloration and by the slightly different relative length of the wings.

The writer's determination of this species was confirmed by Dr Enderlein, who kindly compared a specimen with his type.

Length of body ♂ 6.5 mm. ♀ 5.2 mm.

" wing ₹ 4.7 mm. ♀ 4.5 mm.

Loc. Seychelles. Silhouette: plateau of Mare aux Cochons, 6 3, 3 \cong . Mahé: Mare aux Cochons, 1 \(\mathcal{Z} \). Dennis Island, 2 \(\mathcal{Z} \). Also Madagascar.

SECOND SERIES—ZOOLOGY, VOL. XV.

This is a strikingly isolated genus, more so perhaps than any other in the Limnobina anomala (=Rhamphidinæ of Kertesz). The insects with their short antennæ and legs, rather long and narrow wings, and elongated abdomens, look more like Chironomidæ than Limnobiidæ; the resemblance may be only superficial, or may indicate an ancestral connection with that family. Brunetti (Rec. Ind. Mus. vi. 1911, p. 297) places the genus in the Eriopterini between *Mongoma* and *Gonomyia*; I cannot follow him in this, as I consider *Styringomyia* is much more nearly related to *Teucholabis* and *Paratropesa*.

Styringomyia seems to occur throughout the Ethiopian, Oriental and Australasian regions. The first recent species described was S. didyma Grimshaw, from the Sandwich Islands. This has since been recorded from the Caroline Islands (as *Idiophlebia pallida*), Semarang, Batavia, Pasuruan, and Queensland. The second species, S. (Idiophlebia) crassicosta Speiser, was described from Kamerun; it is widely distributed in Africa; the British Museum possesses specimens from N. Nigeria, Gold Coast, Mashonaland, Natal, Brit. E. Africa and Delagoa Bay; I have also seen it from the Cape of Good Hope; Mr C. P. Alexander redescribes it (Can. Ent., 1912, p. 83, as S. howardi) from Queliniani, Zambesi River. My S. ceylonica from Ceylon (also found in India and the Straits Settlements) may be only a form of S. crassicosta, but there are slight differences in the & genitalia; it is rather surprising, considering this distribution, that it is not the species found in the Seychelles. I should say that, through the kindness of Prof. Sjöstedt, I have examined the type of S. crassicosta and compared it with the British Museum specimens. It closely resembles S. seychellarum; the marked differences in the genitalia have already been pointed out. Brunetti (loc. cit. pp. 300, 301) describes two species from Nepaul and S. India. Finally, it may be mentioned that three species (two from Africa, one from Straits Settlements) in the British Museum collection await description.

The original description of *S. venusta* Loew is not full enough for a detailed comparison to be made, but it would seem to be distinct from any living species by the shortness of its wings. These do not vary perceptibly in length (relatively to the length of the body) in the Seychelles species. Loew (Bernstein und Bernsteinfauna, p. 38, 1850) mentions, but does not describe, another species in the name of *S. gracilis*.

Group Eriopterini.

Genus Ormosia Rondani, Prodr., i. 180 (1856).

Rhypholophus Kolenati, Wien. Ent. Monatschr., iv. 393 (1860).

19. Ormosia perpusilla, sp. n. (Plate 10, fig. 12, wing; plate 11, fig. 10, & genitalia.)

Parva, ochracea; alis hirsutis, infuscatis, cellulâ discoidali apertâ; antennis thorace brevioribus.

3. Head brownish ochreous, antennæ a little shorter than thorax, joints of flagellum about as long as broad. Thorax dark brown above, ochreous on pleuræ, without any distinct markings. Legs brownish ochreous. Wings fuscous-tinged, rather densely hairy, hairs on the veins, flattened and scale-like. Marginal cross-vein just before base of

first submarginal cell, which is about half as long as the second; second posterior cell about half as long as third; discal cell open, coalescent with the third posterior cell. *Abdomen* brownish ochreous.

?. There is a single female which most likely belongs to this species. It is darker in colour than the males, the wings darker fuscous, and the abdomen appearing blackish.

Length of body 2.8 mm.

- " wing 3.5 mm.
- " front leg 10 mm.
- " middle leg 9 mm.
- " hind leg 11 mm.

Loc. Seychelles. Mahé: Cascade Estate, 800—1500 ft., 1 &; Mare aux Cochons, 1500 ft., 1 &. Silhouette: plateau of Mare aux Cochons, 2 &. The single female was from Mahé, in the high forest of Morne Blanc and Pilot. It may possibly represent another species.

I am afraid I can see no reason for not adopting Rondani's name for this genus, though the true generic characters are other than those he gave.

Genus Mesocyphona Osten-Sacken, Mon. N. Am. Dipt., iv. 152 (*Erioptera*, subgenus) (1869).

20. Mesocyphona maculosa, sp. n. (Plate 11, fig. 11, 3 genitalia.)

Alis fuscis, guttis 5 in costâ limpidis; femoribus annulis 2 fuscis.

Head black, flagellum of antennæ dark fuscous. Thorax ochreous above, with a lateral dark fuscous border; pleuræ greyish ochreous, with a dark fuscous longitudinal stripe. Legs ochreous; coxæ dark fuscous; trochanters ochreous fuscous, darker at the tip; anterior and middle femora with a fuscous ring before the middle, all femora with a well-marked fuscous ring near the apex. Wings fuscous, darker towards the costa; four or five rather large ochreous spots along the costa; smaller whitish ochreous spots along the posterior and lower margins, at the terminations of the veins; a large whitish ochreous spot over the cross-veins, between the two largest costal spots; a similar smaller spot at the apex of the open discal cell. First submarginal cell five-sixths as long as second; great cross-vein a quarter of the way along the discal cell from the base. Abdomen dark fuscous.

Length of body 3.5 mm.

- " wing 4 mm.
- ,, front leg 7.5 mm.
- " middle leg 6 mm.
- " hind leg 8 mm.

Loc. Seychelles. Mahé: Mare aux Cochons, 1500 ft., 3 &; Cascade Estate, 800—1500 ft., 2 &. Silhouette: plateau of Mare aux Cochons, 5 &, 1 \cong .

21. Mesocyphona albicapitella, sp. n. (Plate 10, fig. 13, wing.)

Flava, capite albo, alis hyalinis, flavescentibus.

32. Head white, eyes black, antennæ pale greyish yellow, basal joint white. Thorax yellow-ochreous, sides mostly shining milky white. Legs yellow ochreous, claws black. Wings hyaline, veins yellow-ochreous, very hairy, especially in the apical part of the wings. Præfurca curved at the base; first submarginal cell two-thirds as long as second; second posterior cell half as long as third; discal cell open, coalescent with the third posterior cell; great cross-vein at base of discal cell, in a line with the small cross-vein. Halteres yellow-ochreous, the knob brownish. Abdomen yellow-ochreous.

In the \$\varphi\$ from Mah\(\epsi\$\$ the thorax is entirely yellow-ochreous, and the abdomen is largely blackish (perhaps discoloured by food).

Length of body 3 mm.

- " wing 3·5 mm.
- " front leg 10 mm.
- " middle leg 8 mm.
- " hind leg 15 mm.

Although this species shows all the principal characters of the genus, it has a very different appearance and must belong to quite a different group from the last. It has a remarkable external resemblance to a yellow *Phlebotomus*, even to the white patches on the pleuræ.

Loc. Seychelles. Mahé: near Morne Blanc, X. 1901, 1 \circ . Silhouette: Mare aux Cochons, IX. 1908, 1 \circ and 1 \circ in coitu.

Genus Tasiocera Skuse, Proc. Linn. Soc. N. S. Wales, ser. 2, iv. 815 (1889).

- 22. Tasiocera minutissima, sp. n. (Plate 10, fig. 14, wing; plate 11, fig. 12, 3 genitalia.)
- 3. Minuta, fusca, perpilosa, antennis brevibus, flagelli articulis subæqualibus; alis hirtis, præfurcà in cellulà submarginali aut primà aut secundà terminatà.
- 3. Head obscure, fuscous brownish; antennæ hardly as long as thorax, rather densely clothed with long hair; joints of scape much broader than those of flagellum, second larger than first, nearly globose; joints of flagellum nearly equal in length, narrower towards the tip. Thorax brownish, somewhat shining, moderately covered with long hair. Legs fuscous, with rather long appressed hairs. Wings fuscous-tinged, all the veins except the cross-veins densely covered with very long hair. Neuration apparently rather variable, but typically as follows: subcostal cross-vein absent; first and second submarginal cells almost equal in length, præfurca arising at \(\frac{1}{4} \) the length of the wing, ending in second submarginal cell, or sometimes apparently in first; base of first submarginal cell in a line with marginal cross-vein (at least in a wing mounted in balsam), a vein-stump extending from the junction towards the base of the wing; discal cell open (sometimes closed?), coalescing with second posterior cell; great cross-vein at base of discal or second posterior cell, with it retracted some distance towards the base of the wing. Halteres hairy, fuscous, the knob somewhat darker. Abdomen with a dense covering of long dark hairs, dull fuscous, genitalia more brownish.

Length of body 1.6 mm.

- " wing 2·3 mm.
- " hind leg 6.5 mm.

This species seems to be intermediate between Erioptera (sensu stricto) and Molophilus. At first I was inclined to place it in one of these genera, and ascertained that it had not been described under either. But although it differs from Tasiocera in the antennal characters, which Skuse seems to regard as some of the most important diagnostic characters of that genus, yet it agrees very well in several important points, namely, the complete absence of the subcostal cross-vein; the short seventh longitudinal, which reaches only to $\frac{1}{3}$ of the wing; the position of the great cross-vein; the termination of the præfurca in the second submarginal cell; and finally the dense hairiness and the great length of the hair on the abdomen, wings and antennæ. The cross-veins, as in the Australian species, are very difficult to make out, even with the wing denuded of hair and mounted in balsam. They seem, however, to be rather variable, as pointed out in the description. Whether the præfurca ends in the first or second submarginal cell is difficult to see without mounting the wing; in the specimen mounted (the one figured) it ended in the second, but in other specimens I think it ends in the first.

Loc. Seychelles. Mahé: Morne Blanc, 1 \Im ; Cascade Estate, 800—1500 ft., 2 \Im ; top of Mount Sebert, 1800 ft., 1 \Im .

Genus Mongoma Westwood, Trans. Ent. Soc. London, 1881, p. 364.

23. Mongoma pennipes Osten-Sacken, Berlin. Ent. Zeitschr., xxxi. 204 (1887).

Dr K. Grünberg kindly confirmed my identification by comparing a specimen with the type in the Berlin Museum. The species may readily be recognised by its four posterior cells and by its white tarsi and white-tipped tibiæ, the middle tibiæ being fringed on both sides at the tip with white hairs.

Previously (Ann. Mag. Nat. Hist., ser. 8, viii. 1911, p. 63) I have considered that Mongoma should be regarded as a subgenus of Trentepohlia, this latter being an older name. Brunetti, however (Rec. Ind. Mus., vi. 1911, pp. 290—297), prefers to recognise three allied genera forming the Mongoma group, and as these three do not apparently intergrade it may be as well to follow him in this. His Mongomioides, however, is only a synonym of Trentepohlia Bigot (Ann. Soc. Ent. France, ser. 3, ii. p. 473, 1854), since Limnobia trentepohlii Wied. is the type in each. Even if the original characterisation were insufficient, as Brunetti claims, the writer's limitation of the subgenus Trentepohlia (prior to the publication of Mongomioides) would give the name a proper standing.

Meijere, on the authority of Jacobson, states that this species, like *Dicranomyia* (*Thrypticomyia*) saltans, forms chains on web-threads. Similar habits have been observed by Scott in *Thrypticomyia seychellensis*, and it is interesting to notice that all three species have white tarsi. It is strange that the same habit should have been developed independently in two very different genera.

Loc. Seychelles. Mahé: Cascade Estate, 800 ft. and over, 10 \$, 4 \copp. Also Borneo, 1 \$\$ (in Berlin Museum): Ceylon; Pundaluoya VI. 1889, 2 \copp (E. E. Green); hot wells at Trincomali XI. 1891, 2 \copp (Col. Yerbury): Semarang; Jan. and Oct. (E. Jacobson).

Group Anisomerinæ.

Genus Anisomera Meigen, Syst. Beschr., I. 210, xxi. (1818).

24. Anisomera luteipennis, sp. n. (Plate 10, fig. 15, wing.)

Obscure lutea, margine anticâ thoracis albidâ; antennis maris et feminæ capite fere duplo longioribus; alis fusco-luteis, venulâ transversâ marginali ante medium pedunculi cellulæ submarginalis primæ insertâ.

Head whitish above, palpi black; antennæ short and six-jointed in both sexes, barely twice the length of the head, last joint indistinctly divided into two, scape whitish, flagellum grey. Thorax greyish brown, with a fine, rather indistinct whitish line round the front margin and reaching back to the insertion of the wings; pleuræ below this darker; legs testaceous, coxæ more yellowish. Wings opaque, greyish brown, veins of the ground colour; first submarginal cell short, about half the length of its petiole, marginal cross-vein inserted before the middle of the petiole. Abdomen greyish brown.

Length of body 5—6 mm.

" wing 5·5—6·5 mm.

Loc. Seychelles. Mahé: forest between Trois Frères and Morne Seychellois, 1500—2000 ft., XII. 1908, 1 &; Mare aux Cochons district, 1500 ft., I. 1909, 2 &, 1 \cong . Two more males without record of exact locality.

25. Anisomera ferruginea, sp. n. (Plate 10, fig. 16, wing.)

Tota ferruginea, alis cum pedibus infuscatis; antennis maris capite subduplo longioribus; venulâ transversâ marginali in apicem cellulæ submarginalis primæ insertâ.

J. Head ferruginous; eyes, palpi and flagellum of antennæ black; antennæ short, barely twice as long as the head, 6-jointed. Thorax ferruginous; legs black, coxæ ferruginous, base of femora lighter. Wings smoky, somewhat narrower than in the preceding species, veins all dark and clearly marked; first submarginal cell as long as its petiole, marginal cross-vein inserted at its base. Halteres dark fuscous. Abdomen entirely ferruginous.

Length of body 4 mm.

wing 5 mm.

This and the preceding species are the first of the genus recorded outside of Europe and America.

Loc. Seychelles. Mahé: Mare aux Cochons, 1 &; Cascade Estate, 1 &.

There is in the British Museum a single specimen of an insect from Selangor, which to the naked eye would easily pass as A. ferruginea, but looked at closely it is seen to have 14-jointed antennæ and only one submarginal cell. It has, however, spurred tibiæ, and only three posterior cells, as has Anisomera, and hence seems to be a species of Cladolipes.

Genus Eriocera Macquart, Dipt. Exot., i. 74 (1838).

26. Eriocera obscuripennis, sp. n. (Plate 10, fig. 17, wing.)

Ferruginea, alis infuscatis; stigmate nullo, cellulis posterioribus 4; antennis maris et feminæ thorace brevioribus.

Head ferruginous ochreous, eyes black, palpi and flagellum of antennæ fuscous; antennæ apparently 7-jointed in \$\frac{1}{2}\$, 9-jointed in \$\pi\$. Thorax ferruginous ochreous; legs blackish, coxæ and base of femora ochreous. Wings smoky, stigma absent; pubescence distinct on veins and in cells towards apex; four posterior cells, subcostal cross-vein placed well before the apex of the auxiliary vein, marginal cross-vein inserted at the tip of the first submarginal cell; first submarginal cell longer than its petiole; second and third posterior cells of nearly equal width at base. Abdomen ferruginous.

Length of body 6-7 mm.

,, wing 7 mm.

Loc. Seychelles. Mahé: Cascade Estate, 1909, 1 &; Mare aux Cochons, 1909, 1 \coldon.

27. Eriocera fuscinervis, sp. n. (Plate 10, fig. 18, wing.)

Ferruginea; alis subnigris, albidovittatis, stigmate nullo, cellulis posterioribus 4.

2. Much resembles E. obscuripennis, but easily distinguished as follows:

Pubescence of wings almost absent; all the veins broadly infuscated, leaving whitish spaces in the cells; second posterior cell much contracted at base.

Length of body 7 mm.

" wing 7 mm.

These species seem to approximate to the genus *Penthoptera*; the difference between the two genera is in any case slight and the genus *Penthoptera* is perhaps of doubtful validity.

Loc. Seychelles. Mahé: Mare aux Cochons, I. 1909, 1 \copp.

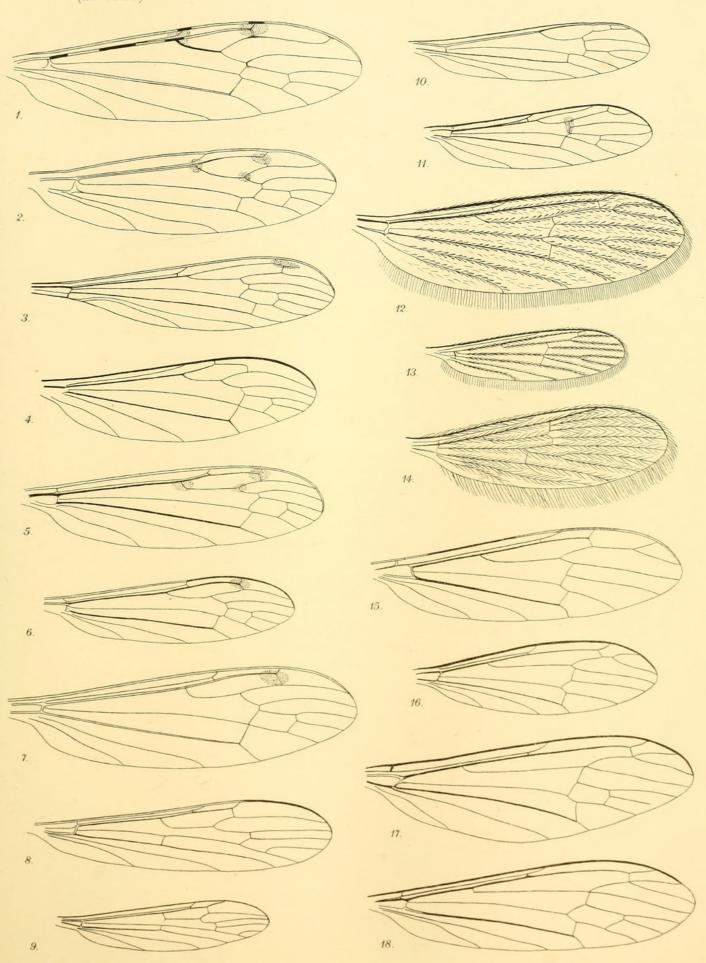
EXPLANATION OF PLATES 10 AND 11.

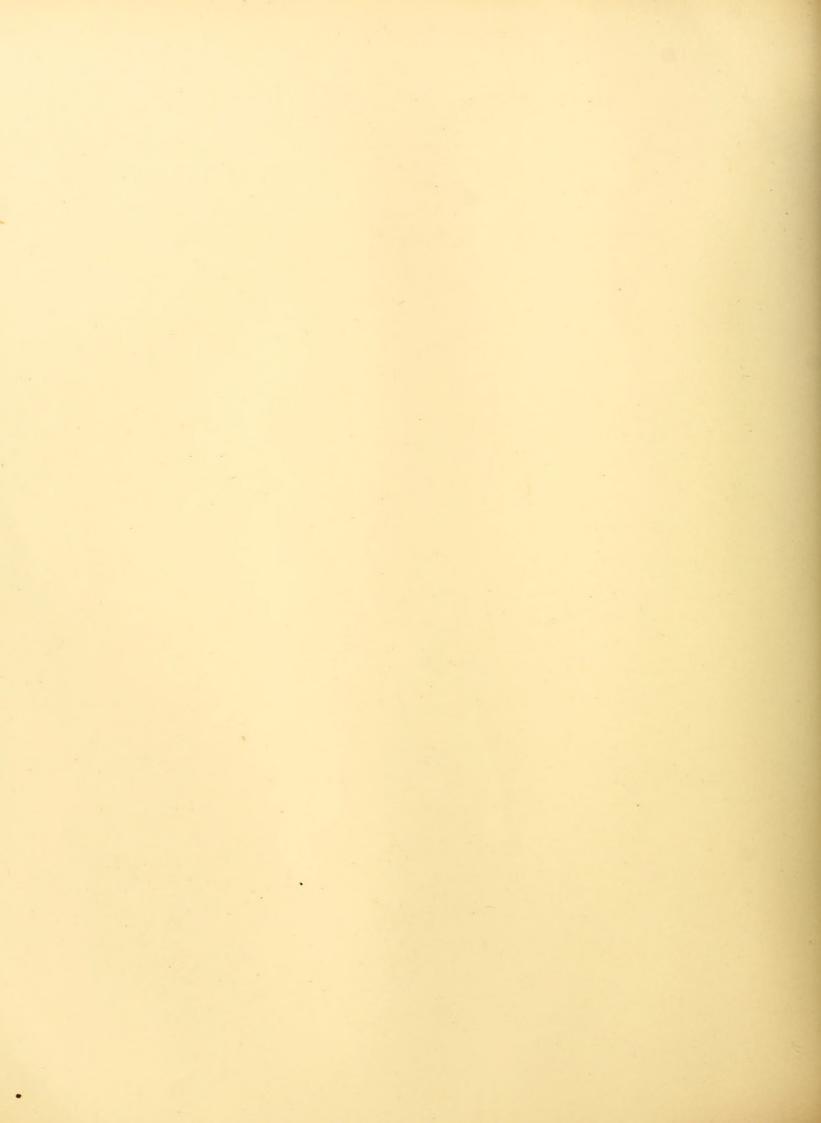
PLATE 10.

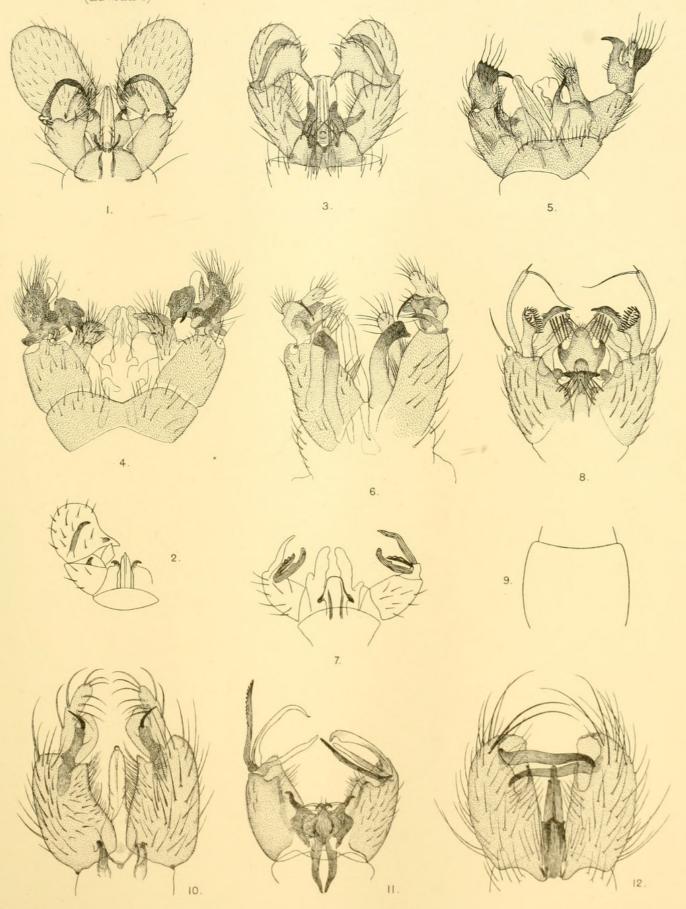
- Fig. 1. Dicranomyia tipulipes Karsch, wing.
- Fig. 2. Dicranomyia gardineri, sp. n., wing.
- Fig. 3. Thrypticomyia seychellensis, sp. n., wing.
- Fig. 4. Geranomyia (Monophana) immaculata, sp. n., wing.
- Fig. 5. Limnobia mahensis, sp. n., wing.
- Fig. 6. Limnobia magnicauda, sp. n., wing.
- Fig. 7. Limnobia thomasseti, sp. n., wing.
- Fig. 8. Orimarga scotti, sp. n., wing.
- Fig. 9. Orimarga fryeri, sp. n., wing.
- Fig. 10. Thaumastoptera aldabrensis, sp. n., wing.
- Fig. 11. Teucholabis flavonotata, sp. n., wing.
- Fig. 12. Ormosia perpusilla, sp. n., wing.
- Fig. 13. Mesocyphona albicapitella, sp. n., wing.
- Fig. 14. Tasiocera minutissima, sp. n., wing.
- Fig. 15. Anisomera luteipennis, sp. n., wing.
- Fig. 16. Anisomera ferruginea, sp. n., wing.
- Fig. 17. Eriocera obscuripennis, sp. n., wing.
- Fig. 18. Eriocera fuscinervis, sp. n., wing.

PLATE 11.

- Fig. 1. Dicranomyia tipulipes Karsch, & genitalia.
- Fig. 2. Dicranomyia gardineri, sp. n., of genitalia.
- Fig. 3. Thrypticomyia seychellensis, sp. n., & genitalia.
- Fig. 4. Limnobia mahensis, sp. n., & genitalia.
- Fig. 5. Limnobia magnicauda, sp. n., of genitalia.
- Fig. 6. Limnobia thomasseti, sp. n., of genitalia.
- Fig. 7. Teucholabis flavonotata, sp. n., o genitalia.
- Fig. 8. Styringomyia mahensis, sp. n., & genitalia, dorso-terminal view.
- Fig. 9. Styringomyia annulipes Enderlein, 2, outline of operculum.
- Fig. 10. Ormosia perpusilla, sp. n., of genitalia.
- Fig. 11. Mesocyphona maculosa, sp. n., of genitalia.
- Fig. 12. Tasiocera minutissima, sp. n., of genitalia.







Engel Terzi del

TIPULIDAE.



Edwards, F W. 1912. "No. XIV.-DIPTERA, TIPULIDAE." *Transactions of the Linnean Society of London* 15, 195–217.

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