\*†Thracia (?) obsoleta, sp. n. (Plate V. fig. 7.) Exp. al. 28 millim.

Body brown above; vertex and antennæ tawny yellow; hinder raised ridge of pronotum, a narrow central carina on scutellum, and terminal segment of abdomen white. Under surface white. Tegmina moderately broad, hyaline, the nervures pale testaceous, often shading into white, especially beneath, those towards the costa and inner margin darkest. The hinder angle is rounded off, but is sufficiently distinct to separate the lower part of the hind margin, running from the truncated apex, from the inner margin. A dusky spot covers the base of the tegmina, and there is a blackish spot on the inner margin at  $\frac{3}{5}$  of its length, at the extremity of the first anastomosing nervure. Beyond this, at the next fork, 3 or 4 dusky spots can just be discerned running up towards the middle of the wing, and then three more, directed outwards. Wings hyaline, with white nervures, extending as far as the hinder angle of the tegmina.

Hardly congeneric with the other species, having broader tegmina and much larger wings. The specimens were ticketed "Phenice" by the late Mr. Atkinson; but on the whole seem to agree better with Thracia in their characters.

Pundaloya.

\*†PHENICE MŒSTA.

Derbe (Phenice) moesta, Westw. Ann. Nat. Hist. (2) vii. p. 209 (1851). Described from India. Appears to be common in Ceylon. Mr. Green's specimens are from Colombo.

Gregarious; frequents the leaves of the sycamore (E. E. G.).

PHENICE PUNCTATIVENTRIS, sp. n. (Plate V. fig. 6.) Long. corp. 3 lin.; exp. al. 14 millim.

Yellow, with green lines, more or less distinct and sometimes obsolete, between the eyes; and on the sutures of the head, thorax, pleura, and abdomen. Abdomen with a double row of black spots on each side above. Tegmina brown, with a broad vitreous band on the costa, and another, commencing on the basal third of the inner margin, and then filling up the whole of the middle of the tegmina, to the hind margin, where it is marked with two brown spots; in the central vitreous band there are four or five short brown dashes on the transverse nervules. The vitreous part of the costa is marked on the outer half with small brown marginal dots, and the brown outer part of the

inner margin with small vitreous marginal dots. Wings narrow, half the length of the tegmina, subhyaline, with two conspicuous brown dashes on transverse nervures—one near the base on the inner margin, and the other subcostal, at half the length of the wing.

Hab. Nawalapitya (very common). Allied to P. mæsta, Westw.

ERANA NIGRICORNIS.

Erana nigricornis, Stål, Œfv. Vet.-Akad. Förh. xv. p. 449 (1858). Described from Ceylon.

GENESTIA VITRICEPS.

Genestia vitriceps, Stål, Œfv. Vet.-Akad. Förh. xv. p. 450 (1858). Described from Ceylon.

### Testdæ.

LUSANDA FISSICEPS.

Lusanda fissiceps, Stål, Berl. ent. Zeitschr. iii. p. 322 (1859). Described from Ceylon.

CALISCELIS EXIMIA.

Caliscelis eximia, Stal, Berl. ent. Zeitschr. iii. p. 323 (1859). Described from Ceylon.

### \*Eurybrachys dilatata.

Eurybrachys dilatata, Walk. List Hom. Ins. B. M. ii. p. 392, n. 25 (1851). Described from Ceylon.

\*EURYBRACHYS TOMENTOSA.

Cicada tomentosa, Fabr. Syst. Ent. p. 683, n. 10 (1775). Occurs in India and Ceylon.

\*†EURYBRACHYS SPINOSA.

Cicada spinosa, Fabr. Ent. Syst. Suppl. p. 520 (1798); Coqueb. Illust. Ins. p. 35, pl. ix. f. 4 (1799).

An Indian species, but the locality given by Fabricius is Mauritius. Coquebert's figure is either much better than the description of Fabricius, or else he figured a different insect, although Fabricius afterwards cited his figure. Mr. Green's specimens are from Putlam.

EURYBRACHYS FRATERNA.

Eurybrachys fraterna, Stål, Œfv. Vet.-Akad. Förh. xv. p. 450 (1858). Described from Ceylon.

EURYBRACHYS CRUDELIS.

Eurybrachys crudelis, Westw. Ann. Nat. Hist. (2) vii. p. 208 (1857). Described from Ceylon.

\*†EURYBRACHYS WESTWOODII, sp. n. (Plate VI. fig. 1.) Exp. tegm. 44-55 millim.

Head, pronotum, and scutellum dull green, inclining to yellowish behind, and speckled with brown; front testaceous; legs dilated, green, tibiæ more or less speckled with black; hind femora and tarsi black. Abdomen red above, pale green beneath, with broad dark green bands on the front of each segment, and lateral spots beyond; apex densely covered with white waxy efflorescence. Tegmina with the hind margin curved outward; costa one sixth shorter than the inner margin, dull white, reticulated and slightly clouded with brown; basal third green, interspersed with white, and partly following the general outline of the hind margin, and marked in the middle and at its extremity opposite the middle of the hind margin, and on the inner margin, with some irregular black spots; along the costa runs a row of small black dots, interrupted beyond the green part of the tegmina, then recommencing in a single or irregularly double row, becoming larger as they continue to curve round the hind margin; on the inner margin they become a more regular double series, ending in one large spot at about three fourths of the length of the inner margin. Wings white, with the basal third blood-red, the costa beyond tinged with green; three large round black spots towards the extremity of the wing, and some very small black submarginal dots beyond. Underside: tegmina with the green at the base much deeper, without white markings, but more or less spotted and reticulated with black; he rest of the wing is whiter and hardly reticulated with brown, which renders the submarginal spots more distinct.

Resembles E. pulverosa, Hope, in the colour of the tegmina, and E. crudelis, Westw., in the colour of the wings.

Kandy.

NICIDUS FUSCONEBULOSUS.

Nicidus fusconebulosus, Stůl, Œfv.-Vet. Akad. Förh. xv. p. 451 (1858).

Described from Ceylon.

\*†HEMISPHÆRIUS SCHAUMI.

Hemisphærius Schaumi, Stål, K. Vet.-Akad. Förhandl. xii. p. 191 (1855).

Described from Ceylon.

\*†Hemisphærius bipustulatus.

Hemisphærius bipustulatus, Walk. List Hom. Ins. B. M., Suppl. p. 95 (1858).

Described from Ceylon. A fresh specimen (not marked with special locality) is green, with the tegmina finely punctured, but not reticulated, and with two slender subparallel red lines on the front.

### \*Hemisphærius dubius.

Hemisphærius dubius, Butl. Ann. Nat. Hist. (4) xvi. p. 97, pl. iv. f. 17 (1875).

Described from Ceylon.

\*†HEMISPHÆRIUS HERBACEUS, Sp. n.

Long. corp.  $5\frac{1}{2}$ , lat. 4 lin.

Green, finely punctured; front with two parallel black lines, widest in the middle, and separated by a yellowish stripe; tegmina green, finely punctured, slightly transparent and reticulated, base of costa with two parallel rufous-brown lines, and a very narrow yellowish edging continued round the rest of the tegmina, except on the inner margin; pectus, pleura, and abdomen with black stripes, those on the abdomen transverse; legs green, lined with black; tarsi testaceous, claws black.

The black stripes on the face distinguish this species from any other known from Ceylon.

Pundaloya.

\*†PTERILIA CEYLONENSIS.

Pterilia ceylonensis, Stal, Berl. ent. Zeitschr. iii. p. 332 (1859).

Not an uncommon species.

# FLATIDÆ.

# Genus MICROCHORIA.

A genus of uncertain position, apparently belonging to the Flatidæ by the majority of its characters, but with a superficial resemblance to *Dichoptera*.

Head large, but slightly narrower than the pronotum, and

about two fifths as long as the total length of the insect, being slightly contracted at rather less than half its length beyond the eyes, and produced into a long, pointed, slightly compressed cone. Antennæ placed below the eyes. Tegmina opaque, with no stigma; costal area with numerous cross nervures; the longitudinal nervures on the disk branched, and with faint traces of cross nervures beyond the middle; tegmina hyaline, with the nervures branched, but with two spaces on the upper part of the wing (not to speak of the inner marginal region) open from the base to the hind margin; below the second is the only cross nervure, at about two thirds of the length of the wing. Head and thorax tricarinate above as far as the constriction; beyond this the terminal cone is compressed, and carinate above; below the head and cone have two strong median carinæ. Legs moderately stout.

\*†MICROCHORIA ABERRANS, sp. n. (Plate V. fig. 10.)

Long. corp. 8 lin., exp. al. 16 millim.

Testaceous, tegmina with numerous black dots on or near the nervures, chiefly near the costa and towards the hind margin, before which is a more or less continuous line of spots; wings hyaline; claws black.

An inconspicuous, but very remarkable species.

Pundaloya.

\*†Elasmoscelis platypoda, sp. n. (Plate VI. fig. 3.)

Long. corp. cum tegm. 7 millim.

Black; head yellowish white, front narrow, bifid, with a central black line, and two oblique black lines on each side; face with transverse black bands; front femora and tibiæ very broad and flattened, carinated above and below, and the femora with a lateral carina, above which they are banded with yellowish white: below there are a few small irregular spots, but the tibiæ are regularly spotted with yellowish white both on the upper and lower margins. Middle femora and tarsi much less expanded, banded alternately with black and yellowish white. Tarsi and hind legs yellowish white; tips of femora and some spots on the lower surface of the hind femora and tibiæ brown; hind tibiæ with two spines in the middle, and an expanding carina below. Thorax with a yellowish dash on each side at the back of the pronotum, and a yellowish spot on each side near the extremity of the metanotum. Tegmina dark brown, with a white spot in the middle, and a row of white spots, mostly oblique, and varying in

size, on the costa and hind margin; there are also a few other small white spots and dots on the inner margin and disk. Wings brown.

Probably allied to *E. tagalica*, Stål, from the Philippines. Exact locality not recorded.

\*†Elasmoscelis (?) badians, sp. n. (Plate VI. fig. 2.)
Long. corp. 4 millim., cum tegm. 6 millim.; exp. tegm. 12 millim.

Body above dark brown; thorax tricarinate; head white in front beyond the middle of the eyes; vertex as broad as the width of the eyes, bifid in front; head, pectus, and legs white, legs not expanded; femora broadly black in the middle, tibiæ narrowly ringed with black; ventral surface of abdomen blackish. Tegmina dark brown; costa and hind margin white, broken into spots by the ground-colour radiating into it, most broadly on the hind margin; there are also numerous narrow undulating dashes running from the inner margin, especially towards the base. The outer half of the dark part of the tegmina inclines to red towards the costa, and is marked with three large black spots, imperfectly differentiated from the ground-colour; between these and the inner margin are some smaller ill-defined dark dots and dashes. Wings brown.

Differs from typical *Elasmoscelis* in the broader vertex and non-appendiculate legs; but I prefer to leave it provisionally in that genus, to which it appears nearly allied.

Pundaloya.

Found on Bambusa. Larva with two long spiral caudal appendages formed of a white waxy secretion (E. E. G.).

TAMBINIA LANGUIDA.

Tambinia languida, Stål, Berl. ent. Zeitschr. iii. p. 317 (1859). Described from Ceylon.

TAMBINIA DEBILIS.

Tambinia debelis, Stål, Berl. ent. Zeitschr. iii. p. 317 (1859). Described from Ceylon.

TAMBINIA RUFO-ORNATA.

Tambinia rufo-ornata, Stål, Berl. ent. Zeitschr. iii. p. 317 (1859). Described from Ceylon.

# \*†PHALÆNOMORPHA EROSIPENNIS.

Phalænomorpha erosipennis, Stal, Œfv. Vet.-Akad. Förh. xv. p. 451 (1858).

There is a whitish insect, varied with green, in Mr. Green's collection from Kandy; and a greenish insect, with a curved dark line running from the base to the tip, in the Museum collection; and I refer these, with some doubt, to this species. The latter was ticketed "Elidiptera perplexa" by Walker, but does not seem to have been described. Stål's descriptions are often very poor, and quite insufficient to identify his species, which may account, in part, for the virulence of his attacks on Walker, whose work he persistently ignored, instead of forwarding science by endeavouring to elucidate it.

### PHALÆNOMORPHA NIETNERI.

Phalænomorpha Nietneri, Stål, Œfv. Vet.-Akad. Förh. xv. p. 452 (1858).

Described from Ceylon.

### \*†PHALÆNOMORPHA EMERSONIANA.

Elidiptera Emersoniana, Walk. List Hom. Ins. B. M., Suppl. p. 73 (1858).

Poeciloptera Tennentina, Tennent, Nat. Hist. Ceylon, p. 433, fig. (1861). Described from Ceylon. Appears to be a variable species.

Found on lichen-covered trunks of trees (E. E. G.).

Pundaloya and Nawalapitya.

# \*†Phalænomorpha inconspicua, sp. n.

Long. corp. 6 millim.; exp. tegm. 16 millim.

Greenish, slightly varied with rufous above; prothorax more distinctly green, abdomen more inclining to yellowish, head beneath and legs rufo-testaceous. Head extending for more than half its length beyond the eyes, angulated on each side and then rounded in front; face with a central carina; hind tibiæ with two spurs; tegmina about four times as long as broad, pale brown, with brown or green nervures, the latter chiefly towards the base or in the interior of the outer half of the tegmina; costal and apical areas very broad, the cross nervures placed close together and but slightly oblique. Wings pearly white, with testaceous nervures, those towards the base and the second from the inner margin green.

Allied to P. Emersoniana, but much smaller, and with the costal and apical areas much wider.

Pundaloya.

\*†PHALÆNOMORPHA PARVA, sp. n.

Long. corp. 5 millim.; exp. tegm. 14 millim.

Testaceous; abdomen broad below, with white transverse stripes; head and thorax slightly mottled with black; head and mesothorax dull yellow. Head extending for about half its length beyond the eyes, truncated, hardly produced beyond the lateral angles; tegmina about three times as long as broad; costal and apical areas very broad, with nearly straight cross-nervures, but distinctly narrower towards the tip; all the nervures testaceous spotted with brown. Wings dirty white, with testaceous nervures.

Allied to the last species.

Pundaloya.

PHALENOMORPHA (?) ABDOMINALIS, sp. n. (Plate V. fig. 16.) Long. corp. 7 lin.; exp. tegm. 17 millim.

Head and pronotum brown; mesonotum reddish brown, darkest in the middle; head, pectus, and legs more yellowish; abdomen greenish above, shading into yellow on the sides and beneath. laterally compressed, and much raised in the middle. Tegmina brown; costa arched; a strong rounded projection on the inner margin towards the base, but beyond the middle both the costa and inner margin form a long shallow concave curve, rendering this part of the tegmina narrowest; the costal region is more or less pale, with numerous cross-nervures; at two thirds of its length the pale space, which is there greenish above, extends downwards for a third of the width of the tegmina, and is bounded outside by an oblique brown shade running from just within the apex. Several of the nervures on the upper part of the central area of the tegmina are infuscated before the middle. The apex and hinder angle are distinct, but rounded off; the marginal area is not very well defined, but is broadest at the hinder angle. Wings fusco-hyaline.

Not closely allied to any described species.

Exact locality not specified.

CHRONEBA PALLIFRONS.

Chroneba pallifrons, Stål, Berl. ent. Zeitschr. iii. p. 320 (1859). Described from Ceylon.

\*†Seliza bisecta, sp. n. (Plate V. fig. 5.)

Long. corp. cum tegm. 8 millim.

Castaneous above, testaceous below; head and thorax broadly black in the middle above; tegmina dark brown; costa slightly arched, and the subcostal nervure more so, rendering the costal area rather narrow, but the apical area is very broad, and the space between the nervures lighter than the central area; internal area bounded by a very distinct testaceous streak along the fold; wings dark fuscous.

Not closely allied to any described species; except in the shape of the head, in which it agrees with *Ricania*, it much resembles a *Phalænomorpha*.

Putlam.

\*†Seliza nigropunctata, sp. n.

Long. corp. cum tegm. 7 millim.; lat. max. tegm. 3½ millim.

Head and pronotum chocolate-brown above; face rather lighter, with testaceous lateral and central carinæ; under surface of body testaceous; tegmina brown with black veins, blackening towards the rounded projection on the base of the inner margin and towards the hinder angle of the central area; the inner marginal area towards the base, and the basal third of the central area, with numerous large raised black granules; the costal and marginal areas very broad, but broadest at the apex; cross-nervures nearly straight.

Much resembles Paciloptera punctifrons, Walker (which is refered to Seliza by Walker in a MS. note); but the nervures are darker, and the costal and submarginal areas broader.

\*†RICANIA FENESTRATA.

Cercopis fenestrata, Fabr. Syst. Ent. p. 688, n. 1 (1775).

Cicada hyalina, Fabr. l. c., App. p. 832 (1775).

Appears to be very common in Ceylon. Mr. Green's specimens are from Pundaloya.

\*†RICANIA TENEBROSUS.

Ricania tenebrosus, Walk. List Hom. Ins. B. M. ii. p. 406, n. 7 (1851).

Common in the East Indies; probably a variety of R. speculum, Walk. Mr. Green's specimens are from Putlam.

\*†RICANIA ANGULATUS, sp. n.

Exp. al. 24 millim.

Brown; head wanting; thorax and pectus black; legs tes-

taceous. Wings brown, subhyaline; tegmina darkest on the costa, with a hyaline mark in the middle, larger and more obtuse at the extremity than in *R. striatus*; obliquely from the apex a hyaline band runs down to the fold; it commences rather narrowly, and widens; at rather more than half its length it is angulated obtusely inwards, and then rectangularly downwards, both angles being fairly well marked, especially the second. Wings with a similar vitreous band running from the costa, where it is broadest, three fourths across the wing towards the anal angle.

Differs from R. fasciata, Amyot, in the shape of the band. Pundaloya.

\*†RICANIA STRIATUS, sp. n.

Exp. al. 30 millim.

Dark reddish brown; pronotum and costa of tegmina more or less distinctly blackish; legs testaceous. Tegmina with a hyaline spot on the middle of the costa, forming a long triangle, the basal side twice as long as the marginal. Two blackish lines beyond the middle of the wing, the outer one bordered first outside, and then crossed and bordered inside by a narrow reddish line; half-way between this and the hind margin is another more regular narrow reddish line.

Allied to R. obscura, Fabr.

Aniswella, July 1888; and Putlam.

An allied species from Ceylon has been identified by Walker (doubtfully, and almost certainly erroneously) with *Pæciloptera pulverulenta*, Guérin, described from Campeachy Bay. I do not care to describe Walker's Cinghalese insect from a single specimen, not in the best condition.

# \*SCARPANTA TENNENTINA.

Pœciloptera Tennentina, Walk. List Hom. Ins. B. M., Suppl. p. 111 (1858).

Elidiptera Emersoniona, Tennent, N. H. Ceylon, p. 433 (1861). Described from Ceylon.

\*†SCARPANTA LATIPENNIS, sp. n. (Plate VI. fig. 9.)

Exp. tegm. 25 millim.

Body and tegmina yellow (faded leaf-colour). Tegmina very broad, the costa strongly arched, and the angles rounded off; the inner margin likewise curved strongly outwards near the base making the outline that of an obtuse-angled triangle, with the angle itself rounded off; at nearly three fourths of the distance from this bend to the hinder angle is a black spot on the inner margin; and at about three fourths of the length of the hind margin is a black spot, from which a series of small disconnected irregular black markings run up towards the middle of the wing; there are also some very small scattered black specks and obsolete dusky mottlings on other parts of the tegmina. Tegmina beneath pale yellowish green, irregularly irrorated with white; all the black spots and specks are covered with white, especially those running from the hind margin, which are rather broader than above; from the inner side of the last dark spot a series of whitish markings runs towards the tip; a series of smaller ones runs from the spots on the inner margin through the transverse dark spots, also towards the tip, and there are several other whitish mottlings on other parts of the tegmina; these are not well-defined clear white spots, but more or less subobsolete and suffused in appearance. Wings white, subhyaline, the nervures concolorous.

Closely allied to S. Tennentina.

One specimen from Kandy.

\*†PŒCILOPTERA GLAUCA, sp. n. (Plate VI. fig. 14.)

Exp. al. 27-31 millim.

Tegmina pale bluish grey, hind marginal area paler; hind wings more grey, iridescent. Body white, scutellum and legs black; abdomen covered with white feathery waxy excrescences.

Allied to P. tineoides, Oliv., but more uniform in colour and with broader wings. It is not unlike Scarpauta Tennentina in shape.

Gregarious. Frequents various species of *Eugenia* (E. E. G.). Pundaloya.

\*†Peciloptera quadrata, sp. n. (Plate VI. fig. 8.)

Exp. tegm. 16-21 millim.

Grass-green; tarsi ferruginous. Tegmina with the costa slightly arched, and the tip and hinder angle nearly rectangular, the former slightly rounded off; inner margin oblique for the basal fourth, then suddenly curved outwards at more than a rectangle, and thence running at a very slight curve to the hinder angle. The costa, hind margin, and outer fourth of the inner margin, as well as the basal angle of the last, narrowly edged with orange; beneath the orange line the costa is more broadly

bordered with yellow. Nervures green, subcostal nervure running parallel to the costa for some distance, and then curving round parallel to the hind margin, but leaving a broader space between the line and the hind margin than between the line and the costa; but before reaching the inner margin it curves suddenly inwards, and ceases just above the point where the orange line ceases on the inner margin. The last nervure from the base near the inner margin is more distinctly green than the others, and its neighbourhood is granulated with green. Wings pearly white, nervures slightly greenish. On the under surface of the tegmina is a transverse curve, hardly visible above, branching from the costal nervure before the upper curve, and then running downwards and obliquely inwards towards the same point on the inner margin.

Allied to *P. truncata*, Linn., but the costal area is much broader, besides other differences.

Putlam.

### \*†PHRONIMA MARGINELLA.

Fulgora marginella, Oliv. Enc. Méth. vi. pp. 566, 575, n. 43 (1791). Recorded from Iudia, Cambodia, and Ceylon.

\*†Phronima deltotensis, sp. n.

Long. corp. 10 lin.; exp. tegm. 50 millim.

Head and body testaceous, yellower beneath; the summit of the eyes, the antennæ except the base of the scape, which is reddish brown, the four hind tibiæ except more or less of the base above, and the tarsi except the claws, deep black. Tegmina testaceous, the costal edge with a narrow yellow line. Wings opaque white, with testaceous nervures.

Larva reddish brown, with the antennæ and legs darker, and covered with white waxy appendages.

Allied to P. inornata, Walk., from Tenasserim, Siam, and Burmah, but with darker legs and antennæ.

Deltota.

\*†FLATA STELLARIS.

Poeciloptera stellaris, Walk. List Hom. Ins. B. M. ii. p. 454, n. 39 (1851).

Cicada ocellata, auct. nec De Geer, Fabr.

Common in Ceylon. The specimens differ slightly in the spetting, but this is known to be a variable character.

Mr. Green's specimens are from Pundaloya.

By an extraordinary error, this species has been identified by most authors with *Cicada ocellata*, Fabricius (afterwards erroneously referred by him to *Flata*), which is identical with that of De Geer, whose figure, which Fabricius quotes, probably represents a species of *Platypleura* allied to *P. Kæmpferi*, Fabr. Although there might be some doubt whether the description of Fabricius really applies to De Geer's insect, yet Fabricius would hardly have applied the term "major" to *P. stellaris* when he included his *ocellata* in the genus *Cicada*.

\*†Phyllyphanta albopunctata, sp. n. (Plate VI. fig. 5.) Exp. tegm. 30 millim.

Green, tarsi ferruginous. Tegmina slightly shaded with white beyond the middle, and with the centres of many of the cells pale; four conspicuous rows of whiter spots; of these, two are longitudinal, starting close together near the base, about the centre of the wing, and then diverging as the tegmina broaden, so as to maintain nearly uniform distances from the costa and inner margin respectively, these extend to rather beyond the middle of the tegmina; the other two rows of whitish spots are transverse, rising towards the tip of the costa, the innermost running obliquely inwards and downwards for two thirds of the width of the tegmina, and the other running nearly straight downwards for a rather longer distance opposite the hind margin. Under surface much whiter, with the rows of spots smaller, more distinct, and further extended. Tegmina with the costa edged with yellow, and the hind margin (more narrowly) with tawny: costa gradually arched, tip acute, rather more than rectangular: hind margin very slightly convex and concave to the very acute and much projecting hinder angle; inner margin with a strong rounded projection near the base, and then gradually curved outwards to the hinder angle; wings pearly white, with a strong projection on the costa near the base, rather more pointed than that on the inner margin of the tegmina.

Not closely allied to any species in the Museum.

Exp. tegm. 23-30 millim.

Head, body, and tegmina green above; head and pronotum with a broad rusty longitudinal band, blackish on the median

<sup>\*†</sup>PHYLLYPHANTA ACUTIPENNIS, sp. n. (Plate VI. fig. 6.) Flata acutipennis, Atkinson, MS.

carina itself; face and under surface whitish or pale green; tarsi ferruginous. Tegmina green, veins green (sometimes yellowish towards the base of the inner margin), the centre of the cells often whitish; costa gradually arched, apex nearly rectangular; inner margin obtusely angulated at about five sixths of its length, then gradually curved outwards and downwards to the hinder angle, which is long and very acute; hind margin nearly straight. A rusty yellow line runs round the wing from the base of the costa to the angle near the base of the inner margin: on the basal half of the costa it is bordered below with pale yellow, and from thence nearly to the hinder angle it is dotted within with brown. On the inner margin the yellow border is edged outside. from the basal angle to two-thirds of the distance to the hinder angle, with a dark brown line, above which stand white dots: this is followed by a conspicuous black spot, running up a little into the wing, and beyond by a row of brown dots extending nearly to the hinder angle. Wings satiny white, subhyaline. Tegmina more or less whitish beneath.

A very common species in Ceylon; one of Mr. Green's specimens had been ticketed with the name "Flata acutipennis" by Mr. Atkinson, which I have adopted. I cannot find that it has been published.

Allied to P. productus, Spin. Pundaloya.

\*† Phyllyphanta dubia, sp. n.

Exp. tegm. 25 millim.

Very like *P. acutipennis*. Front of head rather more pointed; head and pronotum with a black longitudinal carina, bordered with tawny yellow; sides of pronotum with some tawny streaks; tegmina grass-green, with tawny nervures, the cells not centred with white above, beneath paler, but hardly whitish, and the centre of the cells distinctly paler; tegmina with a pale yellow edge, from the base of the costa to the basal angle on the inner margin; dotted with black from beyond the middle of the costa to the hinder angle, and round as far as the large blotch on the inner margin; beyond this and the basal angle is a black line broken at regular intervals. Otherwise as in *P. acutipennis*.

Possibly a variety of P. acutipennis.

Putlam.

\*†MINDURA HEMEROBII.

Ricania Hemerobii, Walk. List Hom. Ins. B. M. ii. p. 425 (1851).

Described from Ceylon. Mr. Green's specimens are from Pundaloya and Nawalapitya.

\*†Nogodina Greeni, sp. n. (Plate V. fig. 15.)

Long. corp. 9 millim.; exp. tegm. 28 millim.

Head and thorax mostly testaceous above, the latter with two black carinæ, diverging behind, the space between these and the central testaceous stripe brown; a black spot on each side in front; abdomen yellow at the sides (greenish at the base) and brown in the middle; marginal carinæ and last two segments black; a white spot at the base of the terminal segment. Face testaceous, with the frontal and lateral carinæ very narrowly black; three testaceous carinæ, diverging and disappearing at a level with the lower boundary of the eyes, which are black in the middle, bordered with yellowish; rostrum black at the base and extremity. Under surface of body pale greenish; coxe spotted and hind femora lined beneath with black; tarsi and spines of hind tibiæ blackish; abdomen brownish in the middle, and with the sides of the terminal segments black. Tegmina and wings hyaline, with brown nervures; hind margins bordered with smoky brown; tegmina with a large oblong stigma, enclosing a square vitreous spot on the subcostal space; there is also a brown spot at the tip, and another within it; another, confluent with the brown border, stands rather below the middle of the hind margin; and the inner margin is broadly brown, from the point where it forms a rounded projection near the base to the hinder angle; the nervures nearest the inner margin are broad and brown, and the cross-nervures rising before the hinder angle are also slightly clouded.

Somewhat resembles *Mindura Hemerobii*, Walk. Deltota.

### CERCOPIDÆ.

PENTHIMIA RUFOPUNCTATA.

Penthimia rufopunctata, Motsch. Bull. Mosc. xxxvi. (3) p. 94 (1863). Described from Ceylon (Nura Ellia and Patannas).

\*†PENTHIMIA MELANOCEPHALA.

Penthimia melanocephala, Motsch. Bull. Mosc. xxxvi. (3) p. 95 (1863). Nura Ellia (Motschulsky); Pundaloya (Green).

# \*†CALLITETTIX AFFINIS.

Callitettix affinis, Atk. Journ. As. Soc. Bengal, Ivii. (2) p. 335 (1889). Very common in Ceylon.

The apical third of the tegmina, within the black edging, is fuscous, reticulated with red of nearly the same shade as the rest of the tegmina. This point is omitted in the original description of the species.

# \*†CALLITETTIX CAPITATA.

Callitettix capitata, Stål, (Efvers. K. Vet.-Akad. Förh. xxii. p. 15, n. 3 (1865).

Phymatostetha insignis, Dist. Trans. Ent. Soc. Lond. 1878, p. 322.

A very common and variable species in Ceylon; the colour of the pronotum varies from red to black; the red at the base of the tegmina is generally more or less lined with black, and sometimes almost obliterated; and the outer part of the tegmina varies from black to subhyaline fuscous.

Mr. Green's specimens are from Pundaloya and Putlam.

### \*†PHYMATOSTETHA INCONSPICUA.

Phymatostetha inconspicua, Butl. Cist. Ent. i. p. 267 (1874). Common in Ceylon.

### \*†CERCOPIS INCLUSA.

Cercopis inclusa, Walk. Cat. Hom. Ins. B. M. iii. p. 658, n. 29 (1851); Stål, Œfv. Vet.-Akad. Förh. xxii. p. 147 (1861).

Common in Ceylon. Mr. Green's specimens are from Kandy.

### \*†COSMOCASTA TAPROBANENSIS.

Cosmocasta taprobanensis, Atk. J. A. S. B. lvii. p. 333 (1889).

A very common insect in Ceylon.

Frequents Strobilanthus (E. E. G.).

### \*†COSMOCASTA GREENI.

Cosmocasta Greeni, Atk. J. A. S. B. lvii. p. 334 (1889). Described from Ceylon.

# Genus Rhinastria, g. n.

Vertex much depressed in front, filled up in the middle behind by a broad ridge, on the sides of which the ocelli are placed, which are about equally distant from each other and from the eyes; front produced downwards into a compressed carinated beak, obtusely pointed below, not unlike that of a puffin in shape; antennæ placed between the base of the beak and the eyes; pronotum nearly smooth, slightly depressed laterally in front, angles not very prominent; scutellum rather large. Tegmina with the costa carinated, convex beyond the middle, a deep groove marked by a black nervure running from near the costa towards the hinder angle; apical third of tegmina reticulated; legs rather long and stout; front femora slightly longer than the others.

Allied to Cosmocarta.

\*†RHINASTRIA BICOLOR, sp. n. (Plate VI. fig. 12.) Long. corp. cum tegm. 10 millim.

Tawny; eyes, antennæ, the nervure mentioned in the description of the genus, and the hinder costal and apical margin of the tegmina, as well as the spaces between the nervures on the terminal third, the knees, tarsi, and some spots on the sides of the ventral segments of the abdomen, black.

Aniswella, July 1888.

\*†Philænus hirsutus, sp. n.

Long. corp. 8-9 millim.

Brownish testaceous, front transversely striated, separated by a broad undivided medial space; two black spots, slightly showing above, just below the middle of the convex and somewhat flattened rim of the head; antennæ, tips of hind tibiæ, and tarsal claws black. Tegmina pointed, with a pale oblique fascia on the costa before the tip, a black spot at the tip, and another, in a pale ring, on the inner margin, at the extremity of the principal nervure; in one specimen, a great part of the outer two thirds of the tegmina is blackish on the costa, as far as the oblique band; it is intersected at about two thirds of the length of the costa by a square pale patch on the costa, nearly connected with the point of a pale subtriangular mark in the middle of the tegmina; the hinder portion of this dark space is concave towards the middle of the tegmina, and runs narrowly towards the inner margin on the basal side of the pale space. The whole insect is so thickly covered with short pale bristles as to entirely conceal

Extremely similar to Aphrophora alni in external appearance. Putlam.

APHROPHORA LINEATOCOLLIS.

Aphrophora lineatocollis, Motsch. Études Ent. viii. p. 110 (1859).

Described from the mountains of Ceylon.

# \*†APHROPHORA FACIALIS, sp. n.

Long. corp. cum tegm. 7-8 millim.

Testaceous, but covered with large, deep, round, brown pits, which give the whole insect a brown appearance; head brown, with the central carina and a spot on each side behind pale, and some pale smooth spaces surrounded with brown in front of the prothorax, borders of scutellum also pale; an indistinct pale spot, bordered with darker, sometimes visible in the middle of the costa of the tegmina; front with deep brown punctures in transverse rows, giving it the appearance of being transversely striated; it is more or less varied with black, sometimes entirely blackish, except at the lower extremity, but more often with two large blackish lateral spots (sometimes united) about the middle, and smaller ones below. Legs brown, indistinctly banded with paler.

Not unlike our common *Philænus spumarius*, L. Pundaloya.

### \*PTYELUS COSTALIS.

Ptyelus costalis, Walk. List Hom. Ins. B. M. iii. p. 707, n. 13 (1851). Ptyelus concolor, Walk. l. c. p. 715, n. 26 (1851). Recorded from India and Ceylon.

\*†CLOVIA PERDUCTALIS, sp. n. (Plate V. fig. 2.) Long. corp. cum tegm. 9–11 millim.

Warm reddish brown above, thickly punctured; head broad, obtusely pointed, the rim of the head and the base of the inner margin and tip of the tegmina sometimes blackish; tegmina in the middle sometimes varied with yellowish; head carinated above: a conspicuous yellowish stripe, pointed at both ends, but with nearly parallel sides for much of its length, commences a little behind the front of the head and ceases at the tip of the scutellum; it entirely covers the scutellum, except a triangular space on each side at the base. Under surface more or less yellowish.

Pundaloya.

\*†CLOVIA HUMERALIS, sp. n.

Long. corp. cum tegm. 8 lin.

Head, pronotum, and scutellum dull testaceous; head and pronotum with two dull reddish stripes, rather wider behind, on each side of the median line; a shorter one, darker behind, within and behind each eye. Head with the front reddish, below which is a blackish half-circle; otherwise testaceous beneath, as are also the sides of the thorax and abdomen and the legs beyond the middle of the femora; otherwise the under surface of the body is blackish. Tegmina pointed in the middle, so that there is no proper hind margin, chestnut-brown, with a testaceous stripe on the basal third of the costa, broadest at the extremity; a slender, transverse, submarginal stripe at the extremity of the costa, preceded by another broad transverse stripe running from the costa just below the tip, and ceasing in a point before reaching the inner margin; on the outer half of the inner margin there are some smaller and more irregular testaceous spots and streaks. which run up to the middle of the tegmina on the basal side.

Allied to C. exclamans, Walker, from Sarawak, but with longer and more pointed tegmina.

Pundaloya.

\*†CLOVIA PERSTRIGATA, sp. n.

Long. corp. cum tegm. 10 millim.

Upperside dark chestnut-brown, with five slender testaceous stripes between the eyes, and an outer one on each side, interrupted by the eyes, passing backwards and inwards over the vertex. pronotum, scutellum, and adjacent part of the tegmina. Tegmina with a large testaceous spot on the costa about two fifths of the distance between the base and the tip; a testaceous submarginal stripe at the extremity, running from about three fourths of the length of the costa before the tip, preceded by a wide testaceous band, at first running obliquely backwards and inwards, and then suddenly angulated backwards towards the tip, where it ceases in a point; between its starting-point and the costa are three short Under surface chocolate; the borders of the testaceous lines. head and thorax black, edged with testaceous within; legs testaceous, the hind tibiæ striped with black, and the tips of the hind tibiæ and tarsi black.

Allied to the last species.

Pundaloya.

\*†CLOVIA BIPUNCTATUS, sp. n.

Long. corp. cum tegm. 8 lin.

Testaceous, with about six reddish lines, the outer ones interrupted by the eyes, passing backwards to the scutellum and tegmina; tegmina with a reddish-brown stripe, broadest behind, running from the base to beyond the middle, and with two slender lines above it; the tip is edged on each side with the same colour, and preceded by a curved stripe from the costa which ceases before quite reaching the tip; at about three fifths of the length of the costa another stripe runs inward and backward, and then turns at an angle to the inner margin; on the inner margin, rather beyond the point on the costa from whence the curved line runs towards the tip, is a well-marked oval black spot. Underside more rufo-testaceous, with a broad testaceous stripe which runs beneath the head and eyes, bordering the head and thorax.

Allied to C. perstrigata.

Pundaloya.

MACHÆROTA GUTTIGERA.

Machærota guttigera, Westw. Trans. Ent. Soc. Lond. 1886, p. 332, pl. viii.

Described from Ceylon.

### MEMBRACIDÆ.

OXYRHACHIS INERMIS.

Oxyrhachis inermis, Stat, Œfv. Vet.-Akad. Förh. xxvi. p. 283 (1869).

Described from Ceylon.

\*Oxyrhachis indicans.

Oxyrhachis indicans, Walk. List Hom. Ins. B. M., Suppl. p. 128 (1858).

Described from Ceylon.

LEPTOBOLUS CURVISPINUS.

Leptobolus curvispinus, Stål, Œfv. Vet.-Akad. Förh. xxvi. p. 284 (1869).

Described from Ceylon.

LEPTOBOLUS AUBICULATUS.

Leptobolus auriculatus, Stål, Œfv. Vet.-Akad. Förh. xxvi. p. 285 (1869).

Described from Ceylon.

CENTROTUS REPONENS.

Centrotus reponens, Walk. List Hom. Ins. B. M. ii. p. 604, n. 14 (1851).

Described from Tenasserim, but included in Walker's list as Cinghalese. It seems to differ from *C. taurus*, Fabr., chiefly in the thicker and more recurved lateral thoracic horns.

It is curious that hardly any of the described *Centroti* included in Walker's list of Cinghalese species were obtained by Mr. Green. Several others mentioned by Walker are MS. only, never having been described.

# \*CENTROTUS (?) MALLEUS.

Centrotus malleus, Walk. List Hom. Ins. B. M. ii. p. 613, n. 41 (1851).

A very distinct and remarkable species, which should certainly form a new genus, and appears to be allied to *Machærota*.

Described from Ceylon.

### CENTROTUS SUBSTITUTUS.

Centrotus substitutus, Walk. List Hom. Ins. B. M. ii. p. 605, n. 16 (1851).

Described from Bengal, but included in Walker's list as Cinghalese.

### CENTROTUS TERMINALIS.

Centrotus terminalis, Walk. List Hom. Ins. B. M. ii. p. 604, n. 13 (1851).

Described from China; included in Walker's list as Cingbalese.

### \*+CENTROTUS LEUCASPIS.

Centrotus leucaspis, Walk. List Hom. Ins. B. M., Suppl. p. 158 (1858).

The commonest species in Ceylon.

# \*†CENTROTUS ATRICOXIS, sp. n.

Long. corp. cum tegm. 71 millim.; exp. corn. 5 millim.

Black, rugose-punctate, sparingly clothed with short golden hairs; scutellum concolorous. Thoracic lateral horns moderately thick, arching, and slightly recurved; central horn curved backwards and downwards, as long as the abdomen; short lateral angles in front of the base of the tegmina very acute. Legs

castaneous, coxæ black, tips of tibiæ and tarsi inclining to blackish. Tegmina dark chestnut, broadly black at the base and for two thirds of the length of the costa, and the nervures mostly black, except towards the extremities.

Allied to C. substitutus, Walker.

Nawalapitya.

Another specimen, which I can hardly consider distinct, has shorter and thicker horns, and the tomentum is white rather than golden. It is covered beneath with a white waxy exudation, as is frequently the case in these insects. The horn is also more depressed.

\*CENTROTUS DECIPIENS, sp. n.

Long. corp. cum tegm. 6 millim.; exp. corn. 3 millim.

Black, punctuation rather finer than in *C. flavipes*; lateral thoracic horns acute, slightly recurved, moderately long and slender; central horn raised at the base and then curved backwards, as in *C. leucaspis*, Walk., nearly to the end of the tegmina, which are yellowish hyaline; pectus in the specimen described with waxy efflorescence, which is continued round the sides of the pronotum and the base of the scutellum; tegmina yellowish hyaline, the nervures nearly concolorous, base black, and the costa to the tip rather broadly black; coxæ black; legs rufo-testaceous; hind legs pale testaceous.

Nearest to *C. leucaspis*, from which it differs, *inter alia*, in the colour of the legs and in the white border of the pronotum &c. This is one of Walker's MS. species, which he has ticketed, and which I think it well to take the present opportunity of putting on permanent record.

Ceylon; particular locality not recorded.

\*†CENTROTUS FLAVIPES, sp. n.

Long. corp. cum tegm. 7 millim.; exp. corn. 4 millim.

Closely allied to *C. atricoxis*, of which it may be a variety. The structure is nearly the same, but the tomentum is white, not golden; the legs are testaceous, shading into reddish brown on the tips of the tibiæ and the tarsi, and the tegmina are lighter, the nervures, except those on the black portion, being castaneous. The pectus and pleura are covered with a white waxy exudation.

Nawalapitya.

CENTROTUS RECTANGULATUS, sp. n.

Long. corp. cum tegm. circa 5 millim.; exp. corn. 3 millim.

Dark brown or blackish; knees, tibiæ, and tarsi rufo-testaceous; pronotum narrowly bordered with white at the sides; lateral thoracic horns broad, directed obliquely outwards and upwards, but only slightly backwards, the extremity shortly and broadly trifid, the middle projection longest and most acute; central spine broad at the base and rising obliquely upwards, and then turned backwards and downwards at a rectangle; the hinder part is slender, acute, longer than the body, and sometimes inclines to testaceous in the middle. Scutellum armed with two short spines. Tegmina hyaline, the nervures towards the base whitish, and those towards the extremity broadly brown; a large brown spot at the tip and another at the hinder angle.

Allied to C. pilosus, Walker, but darker, and with differently marked tegmina.

A common species in Ceylon.

Pundaloya.

Perhaps allied to Stål's genus Leptobolus.

# \*†CENTROTUS GRANULATUS, sp. n.

Long. corp. cum tegm. 10 millim.; exp. corn.  $6\frac{1}{2}$  millim.

Entirely dull black, with fine yellowish pubescence; a testaceous spot on each side of the base of the scutellum and another on the inner margin of the tegmina at three fifths of its length. Thoracic lateral horns broad and flattened, projecting obliquely forward and upward beyond the level of the head, suddenly and squarely truncated at the extremity, bicarinate both above and below, besides the lateral carinæ; central spine rather broad at the base, nearly straight, and depressed to the level of the tegmina, extending for one fourth of its length beyond the pale spot on the tegmina; a well-marked dorsal and two lateral carinæ, the latter coalescing at half their length; pronotum with numerous conspicuous raised black points.

This species and the next have no near allies, but have a distant resemblance to the Australian C. decisus, Walker.

Pundaloya.

\*†CENTROTUS BIOCULATUS, sp. n.

Long. corp. cum tegm. 7-8½ millim.; exp. corn. 5-6 millim.

Deep black; structure nearly the same as in C. granulatus, but

the thorax is thickly and coarsely but uniformly granulated, without isolated raised points; the lateral horns are more upright, not passing beyond the head, and the central spine has only one lateral carina on each side. There are two conspicuous white spots in front of the pronotum before the horns, and two more at the base of the scutellum. Tegmina black, the nervures rufotestaceous at the extremity, and the inner margin broadly hyaline, except at the base and tip.

Allied to C. granulatus.

Pundaloya.

\*+CENTROTUS BUBALUS, sp. n.

Long. corp. cum tegm. 6 millim.; exp. corn. 4 millim.

Deep black; horns long and slender, rising upwards and outwards, and then bent more downward and backward at the tips; central spine rising obliquely upwards nearly to the level of the lateral horn, and then curved over nearly at a right angle and extending almost to the end of the tegmina, the extremity showing a slight upward tendency. Tegmina yellowish hyaline, with whitish nervures; costa black at the base for three fourths of its length, and then brown, after an interruption, to the tip; hind margin more narrowly black for half its length; a dusky spot on the costa and inner margin before the extremity; pleura with a white waxy exudation which extends rather broadly over the sides of the pronotum and the base of the scutellum; legs testaceous (front legs rufo-testaceous), with the tips of the tibiæ and tarsi blackish.

Resembles C. albovenosus in many respects; but the form of the spine is very peculiar and characteristic.

Pundaloya.

\*†CENTROTUS IMITATOR, sp. n.

Long. corp. cum tegm. 5 lin.; exp. corn. 3 millim.

Deep black, thickly and rather finely punctured; pectus with white waxy efflorescence, which extends along the borders of the pronotum and invades the base of the scutellum; lateral spines moderately long and slender, almost horizontal; central spine slightly raised at the extremity and gradually curved backwards, as long as the body. Legs rufo-testaceous; coxæ black; tarsi inclining to blackish; hind legs pale testaceous. Tegmina yellowish hyaline, with whitish nervures; costa with a broad black band for three fourths of its length, towards the extremity of

which it is bordered outside with yellowish; the inner margin is also more narrowly black for some distance from the base; a narrow blackish or rufo-testaceous border extends round the rest of the wing, interrupted for a short space beyond the black stripe on the inner margin; before the tip and hinder angle is a more or less conspicuous brown spot.

Nearly allied to *C. decipiens*. I have retained Walker's MS. name for the present species.

Pundaloya.

# \*†CENTROTUS CUPREUS, sp. n.

Long. corp. cum tegm. 5-6 millim.; exp. corn. 2½ millim.

Uniform cupreous; lateral thoracic horns short, not very acute; pectus covered with a white waxy efflorescence; usually a white dot on each side at the base of the scutellum, and another on the inner margin of the tegmina at two thirds of their length; spine slender, pointed, depressed in the middle, and extending to half the distance between the white spot on the inner margin and the tips of the tegmina. Legs rufo-testaceous. The tegmina are sometimes lighter towards the tips: one specimen has some white waxy spots near the costa at three-fifths of their length, a vitreous spot on the costa beyond, and a yellowish subhyaline space, marked inside with a brown spot, at the extremity of the inner margin; but these differences are hardly sufficient to be regarded as specific in the absence of a series for comparison.

Appears to be a common species in Ceylon. Pundalova.

Anomus reticulatus.

Anomus reticulatus, Fairm. Ann. Soc. Ent. France, (2) iv. p. 521, pl. vii. fig. 32 (1846); Motsch. Études Ent. viii. p. 109 (1859).

Described from Brazil. Stated by Motschulsky to occur in Ceylon (?).

Anomus mucronicollis.

Anomus mucronicollis, Motsch. Études Ent. viii. p. 109 (1859). Described from Ceylon.

### \*+Anomus Tuberculatus.

Anomus turberculatus, Motsch. Études Ent. viii. p. 109 (1859).

The specimen which I refer to this species has the thorax very thickly clothed with hair, a character which Motschulsky does not mention.

# TETTIGONIIDE 1.

## \*TETTIGONIA PAULLULA.

Tettigonia paullula, Walk. List Hom. Ins. B. M., Suppl. p. 219 (1858). Described from Ceylon.

\*†Tettigonia pupula, sp. n. (Plate VI. fig. 10.) Long. corp. cum tegm. 5 millim.

Head orange-red above, with a large oval black spot on the hind border, and a smaller black spot in front, just visible from above; pronotum red on the sides in front; a middle stripe, widening behind, and the hind border black; scutellum with a wide testaceous band in the middle, and black on the sides; face and under surface of body testaceous; a stripe on each side of the face, the knees, and front tibiæ at least, red. Tegmina black for two-thirds of their length, and fuscous beyond, inclining to fusco-hyaline on the edges; the inner margin is broadly bordered with red, nearly as far as the black colour extends, and the base of the costa is also more or less red.

Pundaloya.

Closely allied to *T. paullula*, Walk., and perhaps a variety of it. The type of *T. paullula* is in very bad condition, but there are two additional black spots on the face, the scutellum is testaceous, with two black spots at the base, and the red colouring on the tegmina is either absent or obliterated.

### \*†Tettigonia gemina.

Tettigonia gemina, Walk. List Hom. Ins. B. M. iii. p. 737, n. 27 (1851).

Originally described from Java.

The exact locality of Mr. Green's specimens is not recorded.

# \*†Tettigonia frontalis, sp. n.

Long. corp. cum tegm. 6-7 millim.

Head yellow; front with a very large oval blackish spot, extending from a little below the two black ocelli to the base of the rostrum, except on the margins. Pronotum black; tegmina purplish black, sometimes clothed with a green scaling; costa

‡ I have shown in Proc. R. Dublin Soc. vi. pp. 580, 581, that the type of *Tettigonia*, Linn., is an Orthopterous insect, *Gryllus verrucivorus*, L., to which the generic name must be restored. I cannot, without analyzing the generic synonymy of the *Homoptera*, discover what name should be substituted for *Tettigonia* in that suborder, and therefore retain it provisionally in the present paper.

broadly yellow; wings fuscous. Under surface black; pleura longitudinally, and abdomen transversely, lined with yellow; legs yellow; front coxæ, and hind femora nearly to the tip, black; hind tibiæ lined above with green or brown.

Pundaloya.

\*†Tettigonia pulchella, sp. n. (Plate VI. fig. 13.) Long. corp. 5 millim.; exp. al. 12 millim.

Vertex (except a red band behind the black ocelli and the red occipital ridge) and pronotum dirty yellow, the latter mottled with brown; scutellum forming a sharply-defined equilateral triangle; abdomen bright yellow at the base, with black markings, and black at the extremity; anal appendages bordered with red. Under surface and legs yellowish; extremity of abdomen and a line on the hind tibiæ black. Tegmina light yellowish brown, with pale pink spots and streaks bordered with black, largest and palest on the costa and inner margin; on the costa there are five blotches, the third, fourth, and fifth largest, and crossing the costal area, but all separated by small black spaces on the costa; towards the base the spotting is confused, but from the second, fourth, and fifth spots rows of about five spots (including those on the costa and inner margin) cross the tegmina, the middle spot being linear, or at least longer than the others; nearer the hind margin is another row of four spots, alternately linear and lunular, and nearest the apex is an incomplete ring, broken on the basal side. Wings light brown, with alternating lighter and darker bands.

Udagama.

\*LEDRA RUGOSA.

Ledra rugosa, Walk. List Hom. Ins. B. M. iii. p. 816, n. 13 (1851). Described from Ceylon.

\*†LEDBA SCUTELLATA.

Ledra scutellata, Walk. List Hom. Ins. B. M. iii. p. 812, n. 6 (1851). Described from "East Indies."

Mr. Green's specimens are without special locality.

\*†Petalocephala conica.

Ledra conica, Walk. List Hom. Ins. B. M. iii. p 823, n. 30 (1851). Described from Ceylon.

Mr. Green's specimens are from Nawalapitya.

### \*†Ledropsis dimidiata.

Ledropsis dimidiata, Stål, Œfv. Vet.-Akad. Förh. xv. p. 452 (1858). Described from Ceylon.

Mr. Green's specimen from Hewaietta is much darker than those previously in the Museum Collection (which were placed, without a name, under *Petalocephala*); it is olive-green, with nearly opaque tegmina, with a yellow costa.

### \*GYPONA PRASINA.

Gypona prasina, Walk. List Hom. Ins. B. M., Suppl. p. 258 (1858). Described from Ceylon.

# \*†Gypona striata, sp. n.

Long. corp. cum tegm. 10 millim.

Yellowish green (perhaps grass-green during life); tarsi, front tibiæ, and front of the head, which is semicircular, reddish, the latter usually edged in front with black. Pronotum and scutellum transversely striated. Wings clear hyaline.

Resembles G. prasina, but in the latter species the front of the head is more pointed, and the pronotum is not striated.

Pundaloya.

# IDIOCERUS (?) SUBOPACUS.

Idiocerus (?) subopacus, Motsch. Études Ent. viii. p. 110 (1859). Described from the mountains of Ceylon.

### PEDIOPSIS APICALIS.

Pediopsis apicalis, Motsch. Études Ent. viii. p. 110 (1859). Described from Ceylon (Colombo).

### JASSUS FUSCONERVOSUS.

Jassus fusconervosus, *Motsch. Bull. Mosc.* xxxvi. (3) p. 97 (1863). Described from Ceylon (Patannas).

### JASSUS LATRUNCULARIUS.

Jassus latruncularius, Motsch. Études Ent. viii. p. 111 (1859). Described from Ceylon (Nura Ellia).

### JASSUS PAUPERCULUS.

Jassus paupercula, Spångb. Œfv. Vet.-Akad. Förh. xxxiv. (9) p. 35- (1878).

Described from Ceylon.

JASSUS (?) CURTULUS.

Jassus (?) curtulus, *Motsch. Bull. Mosc.* xxxvi. (3) p. 98 (1863). Described from Ceylon (Patannas).

\*†ACOCEPHALUS PORRECTUS.

Acocephalus porrectus, Walk. List Hom. Ins. B. M., Suppl. p. 262 (1858).

Described from Ceylon.

In Mr. Green's specimen from Pundaloya the head and thorax are marked with longitudinal dull orange stripes, faintly indicated in Walker's type, though not noticed in his description.

SELENOCEPHALUS LIMBATICEPS.

Selenocephalus limbaticeps, Stål, Œfv. Vet.-Akad. Förh. xv. p. 453 (1858).

Described from Ceylon.

DELTOCEPHALUS RUBROLINEATUS.

Deltocephalus rubrolineatus, Motsch. Bull. Mosc. xxxvi. (3) p. 98 (1863).

Described from Ceylon (Patannas).

DELTOCEPHALUS VARIEGATUS.

Deltocephalus variegatus, *Motsch. Études Ent.* viii. p. 112 (1859). Described from Ceylon (Nura Ellia).

DELTOCEPHALUS ELONGATO-OCELLATUS.

Deltocephalus elongato-ocellatus, Motsch. Études Ent. viii. p. 113 (1859); Bull. Mosc. xxxvi. (3) p. 99 (1863).

Described from Ceylon (Colombo and Patannas).

DELTOCEPHALUS DISTINCTUS.

Deltocephalus distintus (sic), Motsch. Études Ent. viii. p. 112 (1859). Described from Ceylon (Colombo).

Deltocephalus guttulatus.

Deltocephalus guttulatus, Motsch. Études Ent. viii. p. 113 (1859). Described from Ceylon (Colombo).

DELTOCEPHALUS DORSALIS.

Deltocephalus dorsalis, Motsch. Études Ent. viii. p. 114 (1859). Described from Ceylon (Colombo).

DELTOCEPHALUS (?) TRANSPARIPENNIS.

Deltocephalus (?) transparipennis, Motsch. Bull. Mosc. xxxvi. (3) p. 100 (1863).

Described from Ceylon (Nura Ellia).

PLATYMETOPUS LINEOLATUS.

Platymetopus lineolatus, Motsch. Études Ent. viii. p. 114 (1859).

Described from Ceylon (Nura Ellia).

PLATYMETOPUS ARCUATUS.

Platymetopus arcuatus, Motsch. Études Ent. viii. p. 115 (1859); Bull. Mosc. xxxvi. (3) p. 100 (1863).

Described from Ceylon (Nura Ellia).

THAMNOTETTIX SUBRUFA.

Thamnotettix subrufa, *Motsch. Bull. Mosc.* xxxvi. (3) p. 100 (1863). Described from Ceylon (Colombo).

THAMNOTETTIX FUMOSA.

Thamnotettix fumosa, *Motsch. Bull. Mosc.* xxxvi. (3) p. 101 (1863). Described from Ceylon (Patannas).

THAMNOTETTIX NIGROBIMACULATA.

Thamnotettix nigrobimaculata, Motsch. Études Ent. xxxvi. (3) p. 101 (1863).

Described from Ceylon (Nura Ellia).

\*†THAMNOTETTIX NIGROMACULATA.

Pediopsis nigromaculatus, Motsch. Études Ent. viii. p. 111 (1859).

Thamnotettix nigropicta, Stål, Œfv. Vet.-Akad. Handl. xxvii. p. 740 (1870); Atkinson, Journ. As. Soc. Bengal, lvii. p. 338 (1889).

Colombo (Motschulsky); Pundaloya (Green); Philippines ( $St\mathring{a}l$ ); India, Borneo, Sumatra (Atkinson).

"One of the small green insects that suddenly appear towards the end of the rains (September usually) in Calcutta. During the few days that they occur they may be found at night in considerable heaps beneath the lamps in the public streets, and they disappear as abruptly as they come. T. bipunctata, Fabr., appears at the same time." (Atkinson.)

T. bipunctata, though a well-known Indian species, does not seem to have been yet recorded from Ceylon.

DIOMMA OCHRACEA.

Diomma ochracea, *Motsch. Bull. Mosc.* xxxvi. (3) p. 102 (1863). Described from Ceylon (Patannas).

TYPHLOCYBA MACULIFRONS.

Typhlocyba maculifrons, *Motsch. Bull. Mosc.* xxxvi. (3) p. 103 (1863). Described from Ceylon (Colombo).

CONOMETOPUS INSPIRATUS.

Conometopus inspiratus, Motsch. Études Ent. xxxvi. (3) p. 104, pl. ii. f. 22 (1863).

Described from Ceylon (Patannas).

### PSYLLIDÆ.

DIRAPHIA (?) INDICA.

Diraphia (?) indica, *Motsch. Bull. Mosc.* xxxvi. (3) p. 114, pl. ii. f. 26 (1863).

Described from Ceylon (Nura Ellia).

LIVILLA (?) NERVOSA.

Livilla (?) nervosa, *Motsch. Bull. Mosc.* xxxvi. (3) p. 114, pl. ii. f. 27 (1863).

Described from Ceylon.

PSYLLA OCULATA.

Psylla oculata, Motsch. Bull. Mosc. xxxvi. (3) p. 115 (1863).

Described from Ceylon (Nura Ellia).

### APHIDÆ.

APHIS COFFEE.

Aphis coffee, Nietn. Enemies of Coffee Tree, p. 16 (1861). Described from Ceylon.

SIPHONOPHORA ARTOCARPI.

Siphonophora artocarpi, Westw. Proc. Ent. Soc. Lond. 1890, p. xxii. Found on the bread-fruit tree in Ceylon.

### Coccidæ.

### \*+LECANIUM MANGIFERÆ.

Lecanium mangiferæ, Green, E. M. M. xxv. p. 249 (1889).

Pundaloya (*Green*); also occurs in Demerara (*Douglas*, Ent. M. M. xxv. p. 251), and may be expected to occur wherever the mango is grown.

### \*†LECANIUM COFFEÆ.

Lecanium coffeæ, Walk. List Hom. Ins. B. M. iv. p. 1079, n. 58 (1852); Nietn. Enemies of Coffee Tree, p. 6 (1861).

Common, and destructive, in Ceylon.

### \*†LECANIUM VIRIDE.

Lecanium viride, Green, Obs. on Green Scale Bug (1886); Ent. M. Mag. xxv. p. 248 (1889).

Common, and highly injurious, in Ceylon.

LECANIUM NIGRUM.

Lecanium nigrum, Nietn. Enemies of Coffee Tree, p. 9 (1861).

The largest species, but less injurious now than formerly (Green).

PSEUDOCOCCUS ADONIDUM.

Coccus adonidum, Linn. Syst. Nat. i. p. 455, n. 2 (1758).

Pseudococcus adonidum, Nietn. Enemies of Coffee Tree, p. 4 (1861).

Probably a cosmopolitan species.

\*†Coccus (?) FLORIGER. (Plate VI. fig. 7.)

Coccus floriger, Walk. List Hom. Ins. B. M., Suppl. p. 305 (1858).

Described from Ceylon.

This and the following species appear to be among those alluded to by Nietner ('Enemies of Coffee Tree,' p. 5) as belonging to the genus *Dorthesia*.

\*†Coccus (?) LANIGER, sp. n. (Plate V. fig. 8.)

Long. corp. cum append. 16 lin.; lat. 13 lin.

Colour apparently vinaceous; but the upper surface is entirely covered with a yellowish-white flocculent mass exactly resembling sheep's wool, in the middle of which are seen a central row, and two concentric series between this and the sides, of whiter and more condensed waxy matter. Under surface with long lateral layers of white wax completely surrounding the insect, below the woolly covering of the upper side.

Pundaloya.

# EXPLANATION OF THE PLATES.

### PLATE IV.

### HEMIPTERA HETEROPTERA.

- Fig. 1. Pentatoma taprobanensis, Dall., p. 84.
  - 2. Zangis dorsalis, Dohrn, p. 85.
    - 3. Callidea Rama, Kirb., p. 76.
  - 4. Canthecona insularis, Kirb., p. 79.
  - 5. Elasmognathus Greeni, Kirb., p. 109.
  - 6. Homæocerus antennatus, Kirb., p. 90.
  - 7. Rhopalus funeralis, Kirb., p. 97.
  - 8. Pirates ypsilon, Kirb., p. 113.
  - 9. Rhaphigaster repellens, Kirb., p. 86.
  - 10. Capsus Ravana, Kirb., p. 106.
  - 11. Tingis globulifera, Walk., p. 110.
  - 12. Pentatoma (?) corinna, Kirb., p. 84.

- Fig. 13. Lygæus quadratomaculatus, Kirb., p. 98.
  - 14, 14 a. Dicephalus telescopicus, Kirb., p. 117.
  - 15. Bathycælia indica, Dall., p. 85.
  - 16. Lestomerus horridus, Kirb., p. 111.
  - 17, 17 a. Formicoris inflatus, Kirb., p. 122.
  - 18. Dindymus Sita, Kirb., p. 104.

### PLATE V.

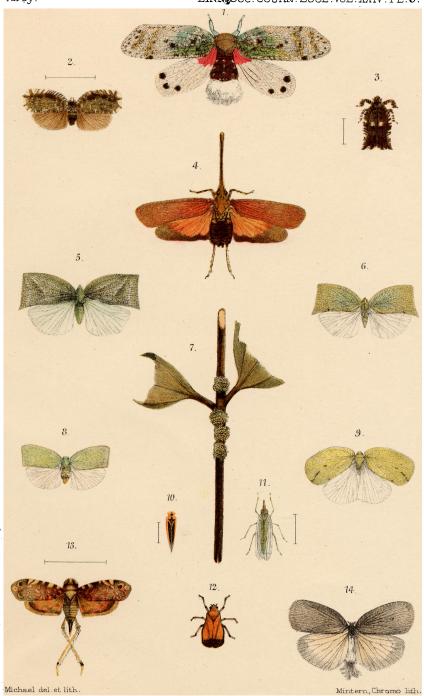
### HEMIPTERA HOMOPTERA.

- Fig. 1. Cicada apicalis, Kirb., p. 131.
  - 2. Clonia perductalis, Kirb., p. 161.
    - 3. Derbe (?) nitagalensis, Kirb., p. 142.
    - 4. Dictyophora (?) egregia, Kirb., p. 135.
    - 5. Seliza bisecta, Kirb., p. 152.
    - o. Seuza oisecia, Kiro., p. 102.
    - 6. Phenice punctativentris, Kirb., p. 144.
    - 7. Thracia (?) obsoleta, Kirb., p. 144.
    - 8. Coccus (?) laniger, Kirb., p. 175.
  - 9. Brixioides carinatus, Kirb., p. 140.
  - 10. Microchoria aberrans, Kirb., p. 148.
  - 11. Pomponia Greeni, Kirb., p. 129.
  - 12. Brixia tortriciformis, Kirb., p. 138.
  - 13. Cixius nubilus, Walk., p. 137.
  - 14. Delphax Ernesti, Kirb., p. 140.
  - 15. Nogodina Greeni, Kirb., p. 158.
  - 16. Phalænomorpha (?) abdominalis, Kirb., p. 151.

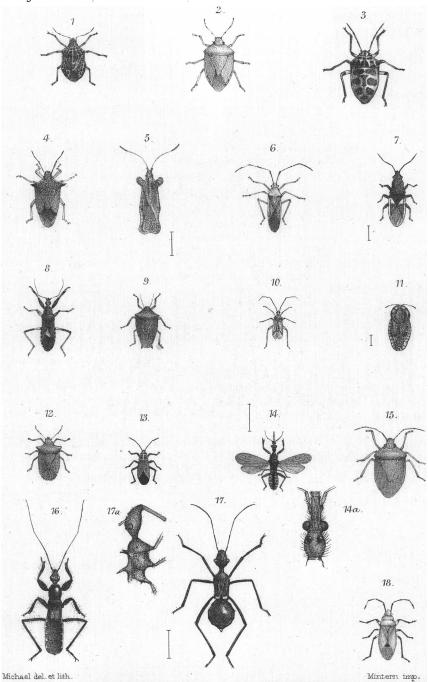
### PLATE VI.

### HEMIPTERA HOMOPTERA (continued).

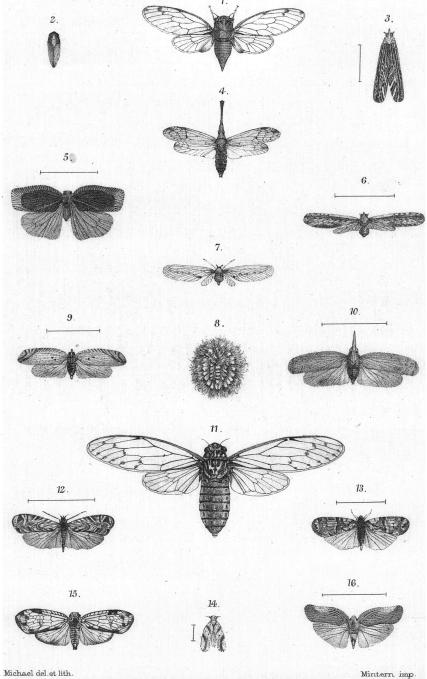
- Fig. 1. Eurybrachys Westwoodii, Kirb., p. 146.
  - 2. Elasmoscelis (?) radians, Kirb., p. 149.
  - 3. Elasmoscelis platypoda, Kirb., p. 148.
  - 4. Hotinus insularis, Kirb., p. 132.
  - 5. Phyllyphanta albopunctata, Kirb., p. 156.
  - 6. Phyllyphanta acutipennis, Kirb., p. 156.
  - 7. Coccus (?) floriger, Walk., p. 175.
  - 8. Paciloptera quadrata, Kirb., p. 154.
  - 9. Scarpanta latipennis, Kirb., p. 153.
  - 10. Tettigonia pupula, Kirb., p. 169.
  - 11. Symplana viridinervis, Kirb., p. 136.
  - 12. Rhinastria bicolor, Kirb., p. 160.
  - 13. Tettigonia pulchella, Kirb., p. 170.
  - 14. Paciloptera glauca, Kirb., p. 154.



HEMIPTERA HOMOPTERA OF CEYLON,



HEMIPTERA HETEROPTERA OF CEYLON.



HEMIPTERA HOMOPTERA OF CEYLON.

# TREASURER'S Account for the year ending April 30th, 1891. (Presented at the Anniversary Meeting, May 25th, 1891.)

# Receipts and Payments of the Linnean Society, from May 1st, 1890, to April 30th, 1891.

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Taxes and Insurance Repairs and Furniture Coals and Gas Salany:— Books Binding Expenses of Publications:— Expense of Publications:— Expense of Publications:— Frinting	Illustrations 342 12 2 Distribution 70 11 1  Miscellaneous Printing and Stationery Petty Expenses (including Tea and Postage).  Investments Balance at Bankers' on 30th April, 1891	12766 4 2   18766 1 2   1876   1891.	Consols  Metropolitan Board of Works 33 per cent. Stock Great Indian Peninsula Railway 5 per cent. Guaranteed Stock Forth Bridge Railway Company 4 per cent. Stock (viz. Mr. Bentham's Bequest as a Library Fund).	FRANK CRISP, Treasurer.
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#8.22.22.24. 42.	æ	£2766 4 2 nvestments	Mr.	
Balance at Bankers' on 1st May, 1890   335 4 9   212 17 10   212 17 10   218 10   218 17 10   218 10   218 17 10   218 10   2258 0   2258 0 0   2258 0 0   2258 0 0   2258 0 0   2258 0 0   2258 0   2258 0 0   2258 0 0   2258 0 0   2258 0 0   2258 0 0   2258 0   2258 0 0   2258 0 0   2258 0 0   2258 0 0   2258 0 0   2258 0   2258 0 0   2258 0 0   2258 0 0   2258 0 0   2258 0 0   2258 0   2258 0 0   2258 0   2258 0 0   2258	Donations	£ In	Consols  Metropolitan Board of Works 3½ per cent. Stock Great Indian Peninsula Railway 5 per cent. Guarantee Forth Bridge Railway Company 4 per cent. Stock (viz.	

The foregoing accounts have been examined and found correct. A DUKINI May 21st, 1891.

ERNEST CLARKE, JOHN W. S. MEJKLEJOHN, DUKINFIELD H. SCOTT, W. PERCY SLADEN, CHARLES STEWART, J. JENNER WEIR.

DEN, Auditors. IR.

# NOTICE.

THE sceming irregularity in the issue of Numbers of the Journals is due to the fact that separate Volumes are issued concurrently, in order to expedite the publication of papers.

# Journal of Zoology.

Vol. XXIII., which commenced with the Part numbered 141-144, was concluded with the issue of Part No. 148, with Title-page and Index to the Volume.

Vol. XXIV. commences with the present Part, Nos. 149-150.

Fellows are requested to compare these statements with their own copies before applying to the LIBRARIAN for apparently missing Parts.

The first Meeting of the Session 1891-92 will be held on Thursday, Nov. 5th, and the ensuing Meetings for the present year will take place on Nov. 19, Dec. 3, and Dec. 17. The Chair will be taken at 8 p.m.