# NEW DREPANULIDAE, THYRIDIDAE, EPIPLEMIDAE, URANIIDAE, AND GEOMETRIDAE.

#### FROM THE ORIENTAL AND PALAEARCTIC REGIONS.

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#### FAMILY DREPANULIDAE.

### 1. Cobanilla continua sp. nov.

Forewings: brownish ochreous, slightly speckled with fuscous, the costal edge bright reddish: lower arm of discocellular narrowly silvery white, followed by a small deeper ochreous patch; a double dark-brown oblique line from centre of inner margin into apex, the space between dull pearly; apical and marginal areas more or less suffused with brown; fringe deep vinous; on the hindmargin between veins 1 and 4 are three shining white triangular blotches, tinged with rosy brown.

Hindwings: with a single antemedian brown line, diffusely edged exteriorly; traces of two postmedian angulated lines; the apex with a narrow rosy-brown blotch; discocellular with two white spots.

Underside yellower, more speckled; forewings with the costal and apical regions, the fringe, and upper part of oblique line, bright rosy; hindwings with the apical fringe only rosy. Face, palpi, pectus, and forelegs bright red; vertex yellow; shoulders and patagia whitish, pink-tinged; abdomen like wings, with a brown median band continuing the oblique line of wings.

Expanse of wings: 44 mm.

One & from Milne Bay, British New Guinea, December 1898 (A. S. Meek).
Allied to C. unilinea Warr., from Ron Island, the type of which is a \(\varphi\). In
the present & the apex of forewing is more produced, and the underside different.

### 2. Phalacra semiprotrusa sp. nov.

Forewings: ochreous drab, the ochreous tinge predominating along the costal half; the lines very indistinct, the only plain ones being those towards the hind-margin, to which they all run parallel; a grey line from costa at four-fifths to middle of inner margin, followed by a pale fascia outwardly edged by a dark grey crenulated line; submarginal line pale ochreous, waved, traversing the somewhat darker marginal area; an interrupted black marginal line; fringe ochreous, mottled with brown; a black cell-spot, and some scattered black scales towards base below the median vein; along the inner margin towards base are visible the ends of oblique lines.

Hindwings: with traces of four straight transverse lines, of which the first, basal, and fourth, postmedian, are darkest; marginal area slightly darker, with an indistinct paler submarginal line; marginal line and fringe as in forewings.

Underside dull ochreous-grey, with a pinkish tinge; marginal area and curved postmedian line of both wings purplish fuscous; fringes paler, chequered with purplish fuscous. Face and palpi deep brown; head, thorax, and abdomen like wings; vertex of head and shaft of antennae both paler.

Expanse of wings: 26 mm.

One & from Sula Mangoli, October 1897 (Doherty).

Distinguished by the prominently blunt elbow at end of vein 3 of forewings; the hindmargin of hindwings is straight from anal angle to end of vein 6; vein 7 appears to become coincident with 8 from close to base.

### Pseudemodesa gen. nov.

Forewings: triangular; the costa strongly curved before apex, which is depressed and minutely produced; hindmargin sinuous.

Hindwings: with both angles blunt; hindmargin produced at vein 5 forming

a strong angulation.

Palpi very small; tongue and frenulum invisible; antennae of 3 strongly

bipectinated almost to tip; hind-tibiae with terminal pair of spurs.

Neuration: forewings, cell one-half of wing; discocellular oblique; first median at one-half, second at four-fifths; lower radial from shortly above third median, upper stalked with 7, 8, 9; 10 and 11 from cell, 10 anastomosing with 8, 9. Hindwings with 6 separating half way down cell.

Type: Pseudemodesa plenicornis sp. nov.

### 3. Pseudemodesa plenicornis sp. nov.

Forewings: silky white, the lines ochreous fuscous; antemedian and postmedian wavy and denticulated lines; a fuscous mark on discocellular between them, traversed by an undefined dark line; a double submarginal row of ochreous lunules; costa slightly dusted with fuscous; fringe whitish; distinct black dots at the ends of the veins, joined by a dark line above vein 5.

Hindwings: like forewings, but the discocellular not marked.

Underside white; costa of forewings discoloured towards base. Head, thorax, and abdomen white.

Expanse of wings: 21 mm.

One & from Rossel Island, Louisiade Archipelago, March 1898 (Meek).

# 4. Teldenia pura sp. nov.

Pure white throughout, the under surface of both wings glossy; face with upper two-thirds dark brown.

Expanse of wings: 18-20 mm.

Two && from Milne Bay, British New Guinea, December 1898 (Meek).

#### FAMILY THYRIDIDAE.

### 5. Addaea fragilis sp. nov.

Forewings: pale shining ochreous, crossed by numerous waved reddish ochreous lines; a small brown discal spot; costa minutely dotted pale and dark; fringe pale.

Hindwings: the same.

Underside paler; cell-spot of forewings conspicuous. Head, thorax, and abdomen like wings.

Expanse of wings: 14 mm.

Five examples, all \$\circ\$, from Dammer Island, November and December 1898 (H. Kühn).

Smaller and narrower-winged than trimeronalis Wlk., to which it is closely related; hindmargin of forewings more oblique, the apex being therefore less rectangular.

### 6. Banisia hieroglyphica sp. nov.

Forewings: shining whitish ochreous, with pale grey and dark brown markings and reticulations; an olive-grey basal patch, containing several fine darker lines; two olive-grey costal blotches; the inner edge of the first forms a small deep brown spot above the median vein and a larger balloon-shaped one obliquely below it, these two being sometimes confluent; its outer edge and the inner edge of the second costal spot approximate on the median; this second spot is developed into the usual bifurcate fascia, which is only slightly darker than the ground-colour except the lower part of the inner arm below the median vein, which forms a deep brown bifurcate blotch from inner margin, its inner edge running in basewards towards the basal patch; apical triangular area brown, deep brown along its inner edge; all the pale interspaces with dark waved lines through them; fringe glossy, ochreous varied with brown.

Hindwings: darker, more suffused with brown, with many curved brown lines, forming fasciae which are more distinct towards costa: of these the central one is most prominent, and contains a lustrous grey discal spot beyond the discocellular.

Underside brownish ochreous, with all the mottlings and fasciae dark and distinct. Palpi, top of face, and forelegs bright ferruginous; face itself, thorax, and abdomen, shining ochreous-grey, the abdomen marked along the back with brown.

Expanse of wings: 30-33 mm.

Two \$ \$ from Milne Bay, British New Guinea, January and February 1899 (A. S. Meek).

Forewings with both outer and inner margin sinuous; hindwings with the margin produced at vein 7, excised strongly below it and bulging in the middle. Easily distinguished by the pale ground-colour, and deep brown blotches.

# 7. Banisia multifenestrata, Warr., Nov. Zool. III. p. 341 (3).

Banisia angustifascia Warr., Nov. Zool. IV. p. 378 (?).

The type of angustifascia described from Amboina is a  $\mathcal{P}$  and without the hyaline spots of the  $\mathcal{S}$ ; it is undoubtedly only the other sex of multifenestrata from New Guinea. I have lately seen a series of four  $\mathcal{S}\mathcal{S}$  and three  $\mathcal{P}\mathcal{P}$  from Milne Bay, New Guinea, collected by A. S. Meek, the  $\mathcal{P}\mathcal{P}$  of which cannot be separated from angustifascia, which must therefore sink.

# 8. Banisia ordinaria Warr., Ann. Mag. N. H. 1896, II. p. 228.

Banisia ordinaria Warr., Nov. Zool. IV. p. 197 and aberrations.

Four specimens received from A. S. Meek from Milne Bay, British New Guinea. In two, a 3 and 2, the dark markings that characterise the aberrations hyphenata and nigristriata, from Queensland, are combined with several more, so that the whole surface of the wings is mottled with oblong blackish spots.

# 9. Banisia rectiviata Warr., Nov. Zool. V. p. 5 (?).

The 3 of this species, like tetragonata Wlk., and multifenestrata Warr., has small hyaline spots which are absent in the \( \frac{1}{2} \). In the forewing the hyaline spot

touches the outside of the second (the straight) line, between veins 2 and 3; and sometimes there is a smaller spot between the same veins beyond the next line; in the hindwings there is a small spot beyond cell beyond the third line, and two small spots obliquely below it between veins 2 and 3. The three &&, from which this further description is taken, are from Milne Bay, British New Guinea, collected by A. S. Meek in December 1898.

### 10. Banisia ypsilon sp. nov.

Forewings: pale greyish ochreous, the lines and reticulations brown; the latter very fine; a brown line from costa at one-third, below which it is curved, to two-fifths of inner margin; at two-thirds of costa a straight brown line to four-fifths of inner margin, shortly forked at costa; an oblique line from five-sixths of costa to middle of inner margin, also forked at costa; a waved line from anal angle not reaching costa; a fine marginal line.

Hindwings: with a nearly straight brown line a little before middle; a finer line from two-thirds of costa to before middle of hindmargin; a curved line between these, forked on hindmargin.

Underside the same, the chief lines edged with rusty suffusion. Head, thorax, and abdomen concolorous.

Expanse of wings: 22 mm.

One & from Dammer Island, December 1898 (H. Kühn).

A larger specimen is in the British Museum Collection from Gayndah, N. Australia.

### 11. Camptochilus decorata sp. nov.

Forewings: ground-colour whitish, with the base, and three fasciae, antemedian, postmedian, and submarginal, reddish-brown; these fasciae have sinuate dentate edges, the brown tint running out slightly along the veins, so that the intervening pale fasciae are composed of contiguous flattened globular spaces between the veins, the centres of which are filled in with paler brown, leaving small lunulate spaces at their edges of the white ground-colour; the postmedian fascia contains a small pale costal space; fringe wide, pale brown.

Hindwings: similar.

Underside like upper, but the brown tints somewhat paler. Head, thorax, and abdomen reddish brown.

Expanse of wings: 30 mm.

Three ♀♀ from Rossel Island, February—March 1898 (Meek).

The costa of forewings is strongly insinuate beyond middle and convex before apex.

# 12. Letchena angulata sp. nov.

Forewings: shining mouse-colour, with numerous short black dots and striae, more or less horizontally disposed between the veins; an oblique whitish hyaline blotch beyond lower angle of cell, extending from the submedian fold to vein 5, consisting of from three to five contiguous small spots; fringe concolorous; the hindmargin is produced into a blunt tooth from veins 3 to 5, above and below which it is irregularly excised.

Hindwings: with three rows of detached round white spots between veins 2 and 5; in one example each row consists of two white spots; in the other the top

row contains four smaller white spots, the middle two, and the lower one only; fringe of the inner margin full and pale.

Underside duller; the costa of forewings with an oblique black blotch nearly reaching the hyaline blotch. Head, thorax, and abdomen concolorous; pectus and legs excessively hairy. Palpi very long, straight, porrect upwards.

Expanse of wings: 30 mm.

Two && from Milne Bay, British New Guinea, December 1898—January 1899 (A. S. Meek).

A remarkable development of the typical form of the genus.

### 13. Pharambara commanotata sp. nov.

Forewings: dull brownish grey, with obscure reticulations and markings; the costa marked with dull brown spots differing in size; the fasciae pale brownish; first at one-third, broad in the cell, below the median inclined towards base; second about middle, obscure, broadened like the first below costa, then interrupted and forming a triangular blotch on the submedian fold; marginal area rather darker, but without distinct markings; a curved white comma-shaped mark at apex, below which there is a dark brown spot near hindmargin. The intervening spaces are paler, with obscure clouds and reticulations.

Hindwings: paler, with a straight brown median fascia from costa before middle to middle of inner margin, and a brownish grey marginal shade, the inner edge of which is fairly straight; fringes concolorous.

Underside paler, especially along costa, with the markings deep brown; a patch of mixed brown and metallic scales in the cell, and another beyond it; the white apical mark plainer and longer, edged inwardly with darker. Head brown; thorax and abdomen like wings. Hindmargin of both wings sinuous.

Expanse of wings: 22 mm. One ? from Mt. Dulit, Borneo.

#### 14. Pharambara nitens ab. atribasalis nov.

Among a series of ten examples of P. nitens Butl., collected by A. S. Meek at Milne Bay, British New Guinea, in November and December 1898, occur two specimens ( $\mathcal{S} \circ \mathcal{P}$ ) which must be named as an aberration. In these the whole of the basal half of forewings as far as and including the central fascia, with the exception of the costal area, is filled up with deep brown-black. In all other respects they agree with the typical form.

The comparison of numerous specimens from New Guinea (Milne Bay and Kapaur), as well as from the islands St. Aignan, Ron, Sudest, Rossel, and Dorei, all agreeing with typical *P. nitens* Butl., from Alu, tends to confirm the view that this form is appreciably distinct from the Indian hamifera Moore.

# 15. Striglina leprosa Warr., Nov. Zool. V. p. 225 (3).

Among the insects sent in by Mr. A. S. Meek from Milne Bay, British New Guinea, are eight examples of *Striglina leprosa*, of which three are  $\mathfrak{P}$ . This sex differs from the  $\mathfrak{F}$  in having the ground-colour darker, greyish pink or dull liver-colour instead of yellow; the outer curved line of white spots is much broader, consisting of three spots in a row between the veins instead of a single spot. The hindwings are more uniformly coloured than in the  $\mathfrak{F}$ . All three examples are a little larger than the  $\mathfrak{F}$ .

### 16. Striglina reversa sp. nov.

Forewings: bright brick-red, strigulated and reticulated with olive-fuscous; the costa olive-fuscous; two more prominent transverse lines or shades of the same colour; one from before middle of costa to beyond middle of inner margin, slightly waved; the other from three-fourths of costa towards hindmargin, before which it ramifies and is retracted to inner margin before anal angle; a series of marginal black spots; fringe red.

Hindwings: with the outer line only, which appears as a continuation of the inner line of the forewings; the veins towards hindmargin in both wings marked with deeper red and olive-fuscous.

Underside paler, with the markings as above. Head, thorax, and abdomen concolorous with wings; the tips of the shoulders olive-fuscous, continuing the costal streak.

Expanse of wings: 27 mm.

Two && from Milne Bay, British New Guinea, October and November 1898 (A. S. Meek).

The legs are less hairy than usual in the genus.

### 17. Striglina variegata sp. nov.

& Forewings: pale ochreous, dusted with darker; the markings greyish or rufous; costa with six distinct black blotches, the sixth connected with a subcostal black blotch obliquely below it; a curved antemedian and median fascia, which sometimes coalesce, when the whole basal half becomes rufous or grey; submarginal fascia represented by an irregular cloud above anal angle, preceded on inner margin by a small triangular mark with black edges; fringe rufous, with a brown or blackish spot at apex.

Hindwings: with an antemedian and broad submarginal rufous fascia, in some cases more or less confused except along costa.

Underside with the markings darker and more concise; costa of forewings without black blotches. Thorax and abdomen of the pale ground-colour of wings; face and vertex white; palpi rufous.

♀ differs from ♂ in having the ground-colour darker and the costal blotches of forewings brown or rufous; and in particular by the narrower median fascia being connected with the submarginal fascia by an oblique arm running towards apex.

Expanse of wings: 3, 28-30 mm.; 9, 32-36 mm.

Four & &, two & &, from Milne Bay, British New Guinea, November 1898— January 1899 (A. S. Meek).

The species may be recognised by the outline of the hindwings which protrude and are bluntly bent at middle of hindmargin; in the ? the hindmargin of forewings is also strongly rounded below, and incised before the apex which is produced; the 3 shows the same peculiarities in a less degree.

# 18. Symphleps ochracea ab. pallida nov.

Forewings: pale straw-yellow, crossed by slightly darker rippled lines; costa deep brown at base; costal edge dark brown between the white spots which are more numerous than in S. ochracea, Pag.; cell-spot small, dark brown, at lower end of cell; fringe very pale brown.

Hindwings: with the lines single and sparsely distributed; a minute dark cell-dot.

Underside with the dark markings plainer; discal spot double, as in ochracea, with more brown scales intermixed; hindwings with small cell-dot. Thorax and abdomen pale, like the wings; shoulders and head brown.

Expanse of wings: 28 mm.

One & from Mount Mada, Buru (3000 ft.), September 1898 (Dumas); also from Kapaur, New Guinea.

The species described by me in Nov. Zool. iv. p. 383 as Symphleps atomosalis, had been already described by Sir G. Hampson in the Pr. Z. S. 1897, p. 621, as Rhodoneura atomosalis: but Pagenstecher's ochracea, described in 1886, is undoubtedly the same insect, and his name will stand.

#### FAMILY URANIIDAE.

### 19. Micronia discata sp. nov.

Forewings: white; the costa marked with fine dark linear strigae; the wings crossed by rows of fuscous thickened striae between the veins, which tend to arrange themselves in more or less regular lines; a fuscous marginal line; fringe rufous-fuscous with the apices paler; a distinct fuscous discal spot.

Hindwings: with the transverse striae fewer and restricted to the innermarginal area; the postmedian series elongated between the veins, not transverse; a submarginal row of fine striae; marginal line black, ending on each side of the tail in a black spot; the tail with a large black spot; fringe rufous, white along upper edge of tail; discal spot larger.

Underside white, with a fine dark marginal line; the hindwings with the dark spot of the tail marked. Head, thorax, and abdomen all white; legs white, internally fuscous-tinged; palpi minute, dark externally.

Expanse of wings: & 22 mm.; \$\pi\$ 30-35 mm.

One 3, two ? ?, from Toowoomba, Brisbane District, Queensland.

In the forewings the costa is strongly arched, the apex prominent, and the hindmargin oblique and straight; the neuration alike in both sexes. The smaller ? is marked bred, December 31st, 1896; probably all three are bred specimens.

#### FAMILY EPIPLEMIDAE.

#### 20. Decetia dichromata Wlk. xxxv. p. 1558.

The variations to which this species is liable are well shown in a series lately received from Sudest and Rossel, islands of the Louisiade Archipelago, where they were collected by A. S. Meek; of these nineteen, including one \$\pa\$, are from the former, the remaining seven, all \$\pa\$ \$\pa\$, from the latter. The ground-colour is generally either ochreous yellow or stone-grey; and similar variations occur in each colour series. The oblique line may be all but obsolete, or very fine, and then generally bright ferruginous, or thick and deep brown or black. The cell-spot of forewings is sometimes obsolete, at others a grey or black speck or spot, or occiloid with paler centre. In some cases the apical region of forewings is blackish; the row of white subapical spots is often quite wanting; while the black submarginal spots of the hindwings are sometimes absent, or on the other hand swollen into

black blotches, which may become confluent and more or less reproduced on the forewings as well. The transverse darker striae are at times quite absent, while in other cases they darken the whole of the wings. In a few instances a dark basal streak runs along the subcostal and is more or less forked in the cell. In two examples the ground-colour is different, being a mixture of pinkish grey, reddish fulvous and olive brown. The hindmargin of forewings in the 3 is bluntly bent at vein 7, then straight to anal angle; in the 4 strongly gibbous throughout; the single 4 has the ground-colour yellow.

### 21. Dirades albilinea sp. nov.

Forewings: dull brownish grey, with numerous minute dark dots and striae; costa dotted, ochreous and fuscous; a dark grey suffusion on inner margin deeper towards anal angle, before which on inner margin is a blackish blotch, externally white-edged; a submarginal row of minute black dots with white scales internally; fringe iron-grey.

Hindwings: browner; the basal area speckled with whitish ochreous and brownish, and edged by a conspicuous sinuous white line from one-third of costa to two thirds of inner margin; marginal area beyond the line olive-brown, towards anal angle dark grey; an indistinct submarginal line of dark purplish lunules from upper tooth to anal angle.

Underside pale dull grey, with fine striations; hindwings lighter. Face and palpi dark brown. Thorax and abdomen pale ochreous grey; vertex and shaft of antennae white.

Expanse of wings: 18 mm.

One & from Milne Bay, British New Guinea, January 1899 (A. S. Meek).

Though a *Dirades* in neuration, this species presents several points of difference: though an undoubted 3, the submedian fold of hindwings is coloured and scaled like the rest of the wing, and bears no tuft of hair whatever. The apex of forewings is truncate from vein 8 to 7, the hindmargin between veins 6 and 7 being slightly prominent, thence sinuous to anal angle; the inner margin has a strong incision beyond middle, and the anal angle is deeply lobed; hindwing with small teeth at veins 4 and 7; the antennae have short close clavate teeth.

# 22. Dirades erectinota sp. nov.

Like conifera Moore, but greyer, with the dark chocolate mark on inner margin more pointed and recurved at its apex which reaches vein 2. The tufts of hair in the furrow of hindwings silky ochreous.

Two ♂♂, one ♀, from Ron Island, July 1897 (Doherty); one ♀ from Dorei, June 1897 (Doherty).

# 23. Dirades vespertilio sp. nov.

Forewings: dull brown, becoming dark grey towards costa; first line at one-third, curved below costa, second at two-thirds, parallel to hindmargin, and partially double; the included space, as well as the base, much clouded with blackish, especially along the costa; outer line with a pale edging; apical area whitish grey, with black speckles and a black costal spot; fringe iron-grey; the hindmargin very narrowly dark brown, with an obscure row of dark marks on its inner edge.

Hindwings: dull reddish brown, without any markings; the abdominal fold silvery white.

Underside of forewings dull red-brown; the hindwings almost wholly overlaid with whitish. Abdomen brown; head and thorax darker; antennae blackish brown.

Expanse of wings: 19 mm.

One & from Sudest Island, April 1898 (Meek).

### 24. Epiplema concinnula sp. nov.

Forewings: chalk-white, with slight brownish speckles in parts; the basal area almost pure; the lines pale brown; first from nearly one-third of costa to one-third of inner margin, sharply angulated almost in midwing; second from three-fifths of costa to two-thirds of inner margin, sinuous, outcurved above and more faintly incurved below, the central fascia between the lines more thickly speckled; a row of five black dots from apex to below middle of hindmargin; a faint brownish cloud at middle of hindmargin; marginal line brown; fringe brownish with white base.

Hindwings: with an interrupted antemedian dark line and a curved postmedian brown line, the latter preceded by a brownish blotch on inner margin; two clear black white-edged lunules between the teeth and a white-edged brown spot below lower tooth; fringe as in forewings.

Underside white, with slight speckling; forewing, except along inner margin, suffused with pale brownish yellow; a straight oblique dark line from middle of costa to two-thirds of inner margin; hindwings with slight dark mark above anal angle. Head, thorax, abdomen, and antennae white; forelegs and palpi brown.

Expanse of wings: 17 mm.

One & from Woodlark Island, March 1897 (A. S. Meek).

Hindmargin of forewings entire; inner margin concave in middle; hindwings with two curved teeth at veins 4 and 7; palpi long, the third joint bent downwards, as long as second; antennae thick, with close clavate teeth.

# 25. Epiplema pallidistriata sp. nov.

Forewings: dull brownish grey, dotted and dappled with darker, and varied with ochraceous; the veins all pale finely edged with dark scales, with pale horizontal streaks in the intervals, likewise edged with dark; costa with oblique black striae with paler interspaces; first line from costa at one-fourth to inner margin at one-third, pale with blackish outer edge, twice acutely angled outwards, once in cell, and again on submedian fold; outer line from three-fifths of costa to four-fifths of inner margin, strongly outcurved to near hindmargin below middle, then oblique inwards, pale, preceded by an irregular black line and followed by a fuscous one; below the middle this black line is preceded by a blackish shade widening to the middle of inner margin; marginal area towards costa grey, with three black costal streaks before apex; marginal line thick, dark grey, preceded by a dull ferruginous band, diminishing in width to anal angle and very irregularly dentated inwardly, preceded on inner margin by a dark cloud; fringe fuscous with fine pale basal line and pale apices.

Hindwings: with black waved basal line, followed below the median vein by a mixture of pale and dark grey scales, and above the median by an ochraceous-tinged pale space, which is edged by a thick oblique velvety black streak, followed again

by grey and fulvous scales which become ochreous towards vein 4; outer line sinuous from two-thirds of costa to vein 4, where it is angled, then again sinuous to three-fourths of abdominal margin; yellowish white edged with purplish brown on both sides, and in its lower half preceded by dark lunulate blotches, followed by a broad lustrous pearly line; apical area occupied by a large purplish blotch; that before anal angle by a pearly grey space; marginal lunules lustrous olive, finely edged with black and preceded by white blotches, crossed by a fine white streak at vein 4; fringe as in forewings.

Underside of forewings dull pale grey, of hindwings whitish grey, both much freckled with blackish towards hindmargin. Face and palpi black; vertex and thorax grey; shoulders paler; abdomen dark grey above.

Expanse of wings: 30 mm.

One ? from Penang, February 1897 (Curtis).

Hindmargin of forewings slightly excised between veins 4 and 6, which are shortly toothed; hindwings with a hook at vein 7, and a curved tail at vein 4.

### 26. Epiplema simplex sp. nov.

Forewings: brownish grey, with brown striae, which are most prominent along the costal edge; the lines brown; the first well curved, from two-fifths of costa to middle of inner margin; the second from three-fifths of costa to two-thirds of inner margin, bent outwards on veins 6 and 4 and inwards on the submedian fold, where it is nearest to the first line: the included space slightly deeper tinged than the ground colour; a darker cloud on middle of hindmargin limited by a curved brown line; fringe concolorous.

Hindwings: with the two lines nearly parallel; from one-fourth and two-thirds of costa respectively, the inner one acutely bent on vein 2 and the outer on vein 4, the latter edged externally with ochreous; marginal area tinged with brown; extreme margin between the tails pale ochreous, internally edged by two brown curves; a black spot below lower tail.

Underside grey, with darker striae; the hindwing more whitish. Thorax and abdomen like wings; vertex and antennae white; face, palpi, and forelegs fuscous.

Expanse of wings: 26 mm.

Two ♀♀ from the Nilgiris.

Wings broad; hindmargin of forewings simple; of hindwings with two short tails at veins 4 and 7; palpi quite short.

# 27. Epiplema spissata sp. nov.

Forewings: greyish fawn-colour, thickly dusted with darker, especially towards base; the lines brown, somewhat obscure; first at one-third, bent on subcostal vein; second from costa just beyond middle to three-fourths of inner margin, oblique to vein 6, vertical to vein 4, then concave to submedian fold and again vertical and thickened; a conspicuous black-edged chestnut-brown marginal blotch from apex to vein 3; fringe grey.

Hindwings: darker grey; a biangulated basal line; a brown postmedian line sharply angled on vein 4, each half uniformly concave outwards, the lower half followed by a broad pale space; an obscure dark line from above upper tail to below lower tail, forming two dark spots at the base of the latter; a pale brown discal mark and some white and black scales mixed along the median vein.

Underside whitish, suffused in forewings with dull grey, with fuscous and black transverse striae between the veins. Head, thorax, and abdomen grey; face and palpi brown-black.

Expanse of wings: 27 mm.

One ? from Sudest Island, April 1898 (Meek).

Distinguished by the dull mealy appearance and almost entire absence of lustrous scaling in hindwings.

### 28. Monobolodes fuscibrunnea sp. nov.

? Forewings: whitish, densely dusted and suffused with purplish fuscous scales in the costal half of wing; the lower half strongly tinged with brown; lines as in rectifascia and pallens; central area followed by a pale spot on costa; an indistinct submarginal line of dark streaks; fringe iron-grey, varied below middle, like the wings, with brown.

Hindwings: grey; the central fascia and the fringe tinged with brown.

Underside dark grey. Head and palpi black; thorax and patagia tinged with brown; abdomen grey.

I with the brown suffusion more prominent; the whole hindwing being brown with a single central dark brown interrupted line; fringe dark brown; underside of hindwings whitish.

Expanse of wings: 3 24; 2 26 mm.

Two &&, two &&, from Milne Bay, British New Guinea, December 1898—February 1899 (A. S. Meek).

Distinguished by the brown intermixture.

#### FAMILY GEOMETRIDAE.

#### SUBFAMILY OENOCHROMINAE.

### Callipotnia gen. nov.

Forewings: with costa nearly straight, curved before apex, which is prominent; hindmargin faintly sinuous.

Hindwings: with hindmargin well rounded; anal angle square.

Antennae of & finely ciliated; palpi laterally flattened, curved obliquely upwards in front of face, second joint broad, third blunt; tongue and frenulum present; hind-tibiae thickened, with two pairs of spurs, the outer middle spur short. A fovea at base of forewings concealed above by hairs; hindwings hairy at base and with tufts of hair beneath the median nervure and along veins 2 and 3.

Neuration: forewings; cell half as long as wing; discocellular straight; first median nervule at about one-half, second shortly before third; radials normal; veins 7, 8, 9, 10, stalked; 11 anastomosing with 12, 10 with 11 and again with 8, 9.

Hindwings: with costa divergent from base; vein 7 just before end of cell; medians as in forewings; radial from the centre of discocellular.

Type: Callipotnia multicolor sp. nov.

# 29. Callipotnia multicolor sp. nov.

Forewings: greyish flesh-colour, suffused with olive, and sparsely sprinkled with dark scales; costal edge narrowly red, red-brown towards base; first line indicated by an oblique red-brown costal streak at one-third, and a dot nearer base

on median and submedian veins; second line from a brown-red costal spot at two-thirds, outcurved on veins 6 and 4, and there marked by a sinuous red-brown line preceded by an olive brownish blotch, incurved below vein 4 to two-thirds of inner margin and marked by red-brown dots on veins, that on the submedian forming a large spot; a submarginal row of brown spots on the veins parallel to hindmargin, starting from a brown costal blotch before apex; fringe red-brown, with a row of small marginal dots before the base; cell-dot small.

Hindwings: with outer and submarginal lines only; the outer line curved and

marked by dots on veins; the submarginal with the spots obscure.

In both wings the basal two-thirds is slightly more suffused with olive than

the marginal third.

Underside deep coppery red, coarsely speckled with black, and with all the markings black; a black marginal line; hairs at base of hindwing and fringe of inner margin bright reddish; tuft of hair below median brown-black; those on veins 2 and 3 ochreous and fulvous. Face and palpi coppery red; vertex, thorax, and abdomen like wings; basal third of antennae pale, the rest dark; femora red; fore-tibiae and tarsi alternately ochreous and dark brown; middle-tibiae dark brown; hind-tibiae reddish, becoming brown towards end like the tarsi.

Expanse of wings: 36 mm.

One & from Dorei, April 1897 (Doherty).

### 30. Taxeotis semifusca sp. nov.

Forewings: greyish white, with coarse and thick fuscous-grey speckling; a diffuse dark fuscous line from below one-fourth of costa to one-third of inner margin, minutely angled outwards on median and submedian veins; a small black discal dot; outer line fuscous, from three-fourths of costa, where it is indistinct, to two-thirds of inner margin, curved outwards from vein 6 to vein 2, where it is bluntly bent; followed below vein 6 by a second dark line which is thickened above inner margin, the space between them faintly tinged with rusty; marginal area wholly filled up with dark fuscous, edged above by an oblique line from apex; minute black dots along margin between the veins; fringe with basal two-thirds fuscous-grey, outer third pale.

Hindwings: without first line; a central curved line followed by a darker

fuscous shade before the dark marginal area.

Underside whitish grey, densely fuscous-speckled. Face and palpi blackish, the palpi white at base; vertex and thorax grey; abdomen pale grey speckled with darker.

The hindmargin of forewings is sinuous.

Expanse of wings: 28 mm.

One ? from Dawson district, Queensland (from the Barnard Collection).

### SUBFAMILY ORTHOSTIXINAE.

#### 31. Bociraza latiflava ab. restricta nov.

Differs from typical latiflara Warr., in having the large yellow semicircular area on inner margin on forewings restricted to a small basal blotch, much dusted with fuscous scales, and only reaching to one-third of wing. In the hindwing the

inner margin is broadly smoky fuscous. Collar black; thorax and abdomen smoky fuscous.

Expanse of wings: 44 mm.

One ? from Milne Bay, British New Guinea, December 1898 (Meek).

#### 32. Celerena aurata sp. nov.

& Forewings: wholly yellow; costa from base to near middle deep purple; two oblique thick purple lines, the first from the end of the dark costal streak nearly straight to before the anal angle, the second from below three-fourths of costa, slightly sinuous, its lower half being outcurved and bent round near middle of hindmargin; the apex of wing slightly purplish tinged; fringe yellow.

Hindwings: with a single curved purple submarginal line, not reaching anal

angle.

Underside similar, but all the dark markings thicker and blurred. Head, thorax, and abdomen yellow; palpi yellow with the terminal joint purplish; legs yellow with the joints purplish; hind-tibiae much thickened with hairs, the tuft at the end on the inner side fuscous purplish; antennae of simply lamellate, with very short bristles, without tuft.

? differs from 3 in having the costal streak interrupted before the first crossline; in having the second line nearly straight and not so closely approximating to the hindmargin, and the apex not purplish.

Expanse of wings: 3 52 mm.; \$ 48 mm.

Two &&, one &, from Rossel Island, February 1898 (Meek).

Allied to C. cana Warr., from Fergusson Island.

### 33. Celerena exacta sp. nov.

Forewings: deep yellow; the costa black to middle whence an oblique black bar with diffuse inner edge runs to join the black marginal border above inner margin; the marginal border occupies one-third of costa, but becomes narrower below middle, its inner edge being strongly curved; it is traversed along the middle by a distinct curved slaty-blue band.

Hindwings: yellow, with black hindmarginal border of nearly uniform width throughout, traversed by a slaty-blue band; the inner edge bluntly rectangular in

the middle.

Underside like upper, but, instead of the oblique bar of forewings, a broad round-edged blotch from costa to median vein only. Head, thorax, and abdomen all yellow: terminal joint of palpi dark.

Expanse of wings: 60 mm.

One ? from Tugela, Solomon Islands (Woodford).

Distinguished by the greater obliquity of the bar of forewings, and its interruption on the underside.

#### 34. Celerena mitis sp. nov.

Forewings: pale yellow; costa from base to middle smoky grey, joining a blackish bar from middle to anal angle, slightly curved at costa and with its inner edge diffuse; hindmargin from anal angle narrowly slaty black and with a crenulate edge as far as vein 4, which then passes obliquely to costa at three-fourths, delimiting a large oblong yellow patch; fringe paler slaty.

Hindwings: with a narrow marginal border of slaty black, uniform from apex to anal angle, with waved inner edge.

Underside similar; the costal streak and cross-bar thicker and blacker; the margins also blacker. Head, thorax, and abdomen all yellow; third joint of palpi dark.

Expanse of wings: 52 mm.

One ? from Sudest Island, Louisiade Archipelago, April 1898 (Meek).

Nearest to C. pallidicolor Warr., from Waigiaou Waigeu.

#### 35. Eumelea aureliata ab. attenuata nov.

- P Differs from typical aureliata in being paler yellow, dusted with finer speckles, with all the markings paler ferruginous and much thinner and less continuous.
- & With ground-colour, where visible, olive-ochreous, instead of yellow, uniformly covered throughout with deep rosy confluent striae.

Expanse of wings: \$ 56 mm.; \$ 52 mm.

Two &&, one &, from Milne Bay, British New Guinea, November 1898—January 1899 (Meek).

#### SUBFAMILY PSEUDOTERPNINAE.

### 36. Hypochroma perfulvata sp. nov.

Forewings: pale green densely speckled with dark green; the costa pinkish ochreous, with black striae and spots; the lines dark green varied with black and reddish scales; a dark spot at base, and an oblique line from near base of inner margin not reaching costa; inner line from a black costal spot at about one-fourth, outcurved in cell and on submedian fold to inner margin before middle, its lower part strongly marked with black and red scales; outer line from a black costal spot at two-thirds, outcurved beyond cell and there forming three sharp teeth on veins 4, 5, 6, then incurved to inner margin just beyond inner line; the teeth all marked with black, and filled in with reddish; a large dark green cell-spot, with a black dash in it on the median and another above it on the subcostal; a red line from it along vein 4 to outer line; submarginal line pale green, inwardly edged by dark green blotches varied with red scales; a row of black spots between veins before margin; fringe green, darker beyond veins and tipped with reddish.

Hindwings: similar, but without first line; the outer line distinct and strongly angled on vein 4; a patch of pinkish scales on inner margin near base; fringe of inner margin yellow.

Face and vertex pale green; collar pink-tinged; shoulders green, the tips with black and red scales; thorax and abdomen green, varied with black and red scales.

Underside: wholly dull deep yellow; with a broad blackish marginal border, leaving a small pale spot below vein 4 and the apex of forewings pale yellowish ochreous; fringe ochreous, with dark patches; forewing with a round cell-spot, some costal marks, and a row of transverse striae from base along submedian fold, black; abdomen beneath and legs yellow-ochreous; forelegs dark fuscous-green above.

Expanse of wings: 50 mm.

Two && from Milne Bay, British New Guinea, November 1898—January 1899 (Meek).

Distinguished by the angulated second line of hindwings, and the uniform

yellow colouring below. In forewings vein 11 is free.

#### SUBFAMILY GEOMETRINAE.

### 27. Agathia punctata sp. nov.

Forewings: pea-green, the costa diffusely ochreous-grey with fuscous strigae; the lines represented by reddish brown spots on the veins; a spot at base of costa and of median vein; a costal spot at one-eighth; first line from one-third of costa to one-third of inner margin, angled at origin of veins 3 and 4, marked by spots on costa, subcostal vein, a double one at the angle, one on vein 2, and on inner margin; outer line from two-thirds of costa to two-thirds of inner margin, the spots at origin of vein 7 and those on veins 6 and 5, lying in an oblique line outward, those on veins 1 to 4 in an oblique line incurved; a row of marginal spots at end of veins, that on vein 4 the largest; a darker red-brown apical blotch; fringe (worn) yellowish green.

Hindwings: with outer and marginal spots as in forewings; the spot on tail at vein 4 largest; inner line represented by a spot on vein 2 and one at junction of

3 and 4.

Underside whitish green, the lines of spots showing through; the apical spot of forewings and tail spot of hindwings both blackish red. Face and palpi red above, pale below; fillet and antennae red; vertex, thorax, and abdomen green; the abdomen with red-brown dorsal spots.

Expanse of wings: 36 mm.

One ? from Dammer Island, December 1898 (H. Kühn).

# 38. Anisogamia subliturata sp. nov.

& Forewings: greenish white; the markings much the same as in A. subvenusta Warr.; the green basal and central areas more strongly rippled with whitish; the pale band beyond central fascia broad and continuous, greenish white, followed by two regular series of greenish white wedge-shaped spots, all edged with darker green and tinged with yellowish; marginal lunules deep green; fringe green tipped with brownish.

Hindwings: with basal area dark green, freckled with pale; the rest as in

forewings, but the wedge-shaped spots below costa edged with blackish.

Underside, basal half dull olive-green, with the veins paler; the costal area pale ochreous; a dark olive strongly denticulated submarginal fascia, emitting a dark blotch inwards above vein 4; blackish green marginal lunules; fringe whitish, chequered with fuscous beyond veins. Face above, collar, thorax, and abdomen dark green, the abdomen speckled with whitish scales; vertex, shaft of antennae at base, and lower third of face snow-white; palpi externally olive-brown; antennae dark brown.

 $\mathcal{P}$  Forewings: ground-colour deep green; costa, lines, and marginal third pale ochreous; the costa and margin speckled with blackish and fuscous; the lines as in  $\mathcal{S}$ ; a short ochreous projection from costal area along upper half of discocellular; upper third of marginal area green, with the veins across it, a curved submarginal

line, and the extreme hindmargin ochreous; a green patch at anal angle; marginal lunules green above vein 4, black and finer below; fringe pale and dark ochreous.

Hindwings: basal half green, with inner margin narrowly ochreous; ochreous marginal area thickly speckled with black, with two green patches above anal angle only; marginal lunules all black.

Underside pale ochreous; all the markings of the 3 intensified and dark fuscous; vertex and antennae ochreous, the latter annulated with brown; abdomen ochreous speckled with brown, and with two brown rings on anal segments; thorax and palpias in 3.

Expanse of wings: 35 mm.; 9 40 mm.

Four ♂♂, two ♀♀, from Milne Bay, British New Guinea, December 1898—February 1899 (Meek).

### 39. Anisogamia subvenusta sp. nov.

3 Forewings: deep green; the costa whitish with deep fuscous strigulae; subcostal area for two-thirds marked with hoary white scales: basal area crossed by indistinct series of white scales; first line from one-sixth of costa to two-fifths of inner margin, oblique outwards to subcostal, then waved; cell mark deep green preceded by whitish scales; outer line white, dentate, developed into three large white blotches, one between veins 5 and 7, a second between 3 and 4, the third on inner margin reaching vein 1; this line forms sinuses inwards beneath costa, at middle, and on inner margin where it approaches the basal line; two submarginal series of irregular white spots, those between veins 6 and 7, and 4 and 5 in each series larger and subconfluent, fringe green and white.

Hindwings: with cell and basal portion of submedian area whitish; the rest as in forewings, but the outer edge of outer line marked with a black lunule beneath costa.

Underside bluish white; basal two-thirds of forewings washed with yellowish olive-green; the cell-spot and two denticulate shades dark olive-green, the outer one becoming black at anal angle; a marginal series of olive lunules between the veins; fringe white, with dark green mottlings at the vein ends; hindwings with a patch of pale olive at middle of costa and a black blotch at apex shading into green below; marginal spots small.

Q quite different; deep green without any whitish scales; costa broadly ochreous, dusted and spotted with fuscous; first and second lines placed as in 3 but pale ochreous, the first not wavy, the second waved but not denticulate; this last widened into ochreous blotches at extremities; marginal area beyond brownish ochreous dusted with dull brown scales, except an irregular green patch from vein 8 to 5 touching outer line, and a small green blotch between veins 2 and 3; marginal lunules and a costal spot before apex blackish; fringe ochreous.

Hindwings: without first line; outer line swollen only on costa, with three small green blotches beyond it in the ochreous marginal area, one on inner margin, the second between veins 2 and 3, the third beyond cell.

Underside wholly ochreous; both wings with submarginal dentate-edged blackish fasciae and series of marginal lunules; basal two-thirds of forewings tinged with olive and fuscous, and edged with darker. Face in both sexes dark green above, white below; patagia and shoulders green; vertex and palpi in ? ochreous, in 3 the vertex snow-white, the palpi bright pale brown: abdomen in ? ochreous,

dusted with brown and with lateral green marks on basal segments; in 3 dark green flecked with silvery white.

Expanse of wings: 33 mm.; \$ 33 mm.

Nine &&, five &&, from Milne Bay, British New Guinea, November 1898—February 1899 (Meek).

### Chloromachia gen. nov.

Forewings: with costa convex at base and before apex; hindmargin bluntly bent in middle.

Hindwings: with hindmargin dentate at middle, crenulate on each side. Palpi with second joint rough-scaled, third naked, moderate, longer in  $\circ$  than in  $\circ$ ; antennae of  $\circ$  with fascicles of cilia; hind-tibiae of  $\circ$  dilated, with a fold containing tuft and with two pairs of spurs; tongue and frenulum present.

Neuration: first subcostal of forewings free; the other four-stalked; last two medians from lower end of cell; hindwings with the two subcostals and last two medians stalked.

Type: C. divapala Wlk. (Comibaena).

Distinguished from Chlorostrota Warr., by the & antennae.

### 40. Chloromachia (?) pallidata sp. nov.

Forewings: whitish, varied with very pale bluish green; the costa broadly ochreous striated with brownish; basal edge brown; first line near base, oblique outward to subcostal, then vertical; outer line from three-fourths of costa to middle of inner margin, irregularly crenulate; submarginal line outcurved from costa to vein 7, then straight to anal angle; all three lines white; marginal area washed with white, with a row of rather large dark green spots between the veins; fringe white.

Hindwings: with a broad white antemedian band, within which the basal area is green, containing a white discal spot, and becoming white itself at base; marginal area white, narrowed to a point at apex and anal angle, with the marginal spots as in forewings.

Underside white; costal area ochreous-brown; subcostal area greenish; a green blotch on disocellular, partly showing through on upperside; marginal spots fuscous. Palpi varied with fuscous and green; face dark green, white below; vertex and antennal shaft white; thorax and abdomen green and white.

Expanse of wings: 30 mm.

One & from Milne Bay, British New Guinea, January 1899 (Meek).

The specimen is somewhat worn, and the description is unavoidably deficient in exactness. It differs from typical *Chloromachia* in having the hindmargin of forewings nearly straight, and in respect of the palpi and hind-tibiae it is nearer *Chlorostrota* Warr., which, however, has the antennae of 3 pectinated.

# 41. Episothalma subaurata sp. nov.

Forewings: like E. obscurata Warr., but yellower green; the outer line followed by a thick blackish green shade above inner margin.

Hindwings: with the blackish shade broader and extending from costa to inner margin; the outer line preceded also by a narrower black shade.

Underside of both wings golden yellow, with a broad velvety black submarginal

shade gradually narrowing from anal angle of hindwings to costa of forewings, which it does not reach; cell-spots and marginal spots blackish. Face dark brown; palpi ochreous-yellow beneath, the terminal joint dark fuscous; thorax and abdomen green; third and fourth segments of abdomen marked with red and black scales.

Expanse of wings: 40 mm.

One ? from Milne Bay, British New Guinea, December 1898 (Meek).

Received with a series of E. obscurata: the forewings have the hindmargin more deeply excised below the apex.

### 42. Gelasma (?) perlineata sp. nov.

Forewings: mealy green, the costal edge whitish; the lines dark green, regularly dentate; the first curved from one-fifth of costa to one-third of inner margin, the second from two-thirds of costa to just beyond middle of inner margin, both ending in red spots; cell-spot round, dark brown, edged with reddish; marginal line fine, red, broadly interrupted at the ends of the veins; fringe apparently green.

Hindwings: with outer line curved; no inner line.

Underside whitish green. Head, thorax, and abdomen pale green.

Expanse of wings: 32 mm.

One ? from Tugela, Solomon Islands (Woodford).

Almost exactly like Anoplosceles nigripuncta Warr., from W. Java, but the hindwings are not acutely tailed at middle. In appearance more like a Hemistola. Till the 3 can be compared I leave it provisionally in Gelasma.

### 43. Helicopage velata Warr., Nov. Zool. IV. p. 390.

There appear to be two forms of this insect. In the typical form from Woodlark Island, which occurs also in Rossel Island, the anal region of hindwings is occupied by a squarish dark olive-green blotch above, partially shown as a fuscous blotch below, the outside edge, darker than the rest, running from anal angle to radial and there stopping. In the other form, from Suer, Mefor, and from Sudest Island, the dark anal blotch is absent above, and below the submarginal line is shown by a row of rusty spots on the veins from anal angle to apex. The ? of this latter form differs considerably from the 3; all the lines and shades are much more defined in greyish buff, this colour forming a broad postmedian fascia containing a postmedian line marked by black spots on veins from two-thirds of costa to three-fourths of inner margin, bent at vein 4, the fringe being buff, with a dark basal line towards anal angle. In the hindwings the outer third of wing, except the extreme apex, is buff speckled with darker, the postmedian line is dentate but marked by black points only on veins 3 and 4, and there is a smoky black submarginal shade from before apex, which in one strongly marked example develops into a coal-black blotch towards anal angle. The dark fuscous markings of the underside are much more developed than in the 3. The largest \( \psi\$ from Sudest Island expands to 39 mm.

# 44. Œnospila (?) simplex sp. nov.

Forewings: apple-green; a curved, strongly zigzag pale line at two-thirds, before which the green tint is slightly deeper; cell-spot red-brown; fringe yellow, with a fine interrupted red-brown basal line.

Hindwings: the same, the cell-spot larger. Underside pale green; the fringes green.

Head and thorax pale green; abdomen wanting.

Expanse of wings: 24 mm.

One ? from West Java.

Forewings, with the hindmargin straight and oblique; hindwings with the inner margin longer than the costal; apex rounded, rectangular; hindmargin sinuous, slightly inflected opposite cell.

Referred to Enospila provisionally.

### 45. Tanaorhinus unipuncta sp. nov.

Differs from T. luteoviridata Wlk., in having a single elongated large blackish cell-spot on both wings.

Expanse of wings: 65 mm.

Two && from Milne Bay, British New Guinea, February 1899 (Meek).

Of these two specimens one is in good condition and has the underside of forewings pinkish green to the transverse line, which is edged outwardly by a diffuse pale green shade, the marginal area mixed fulvous and green; the other, which is worn, has the whole underside of the forewings yellow as in the hindwings; the transverse line followed by a distinct broad crenulate-edged pearl-green shade, and the hindmargin with an obscure row of greenish triangles, as if the pinkish green scales of the fresher specimen had been rubbed off.

#### SUBFAMILY STERRHINAE.

### 46. Chrysolene flavipuncta sp. nov.

Forewings: dull brick-red, deeper towards hindmargin and anal angle, towards costa and base more pinkish grey with reddish speckles; costa deeper red, but tinged with yellow in apical fourth; hindmargin narrowly deep yellow, the edge of the red ground-colour irregularly jagged; at three-fourths a paler postmedian line, bluntly angled outwards at vein 4, then curved inwards, more distinct in upper half owing to its being margined internally by deeper red; a deep red cell-spot, before which there appears an indistinct deep red blotch from costa, probably representing first line; fringe yellow.

Hindwings: similar; the outer line more prominently angled in the middle; cell-spot yellow ringed with red.

Underside dull red; the hindmargin and fringes yellow; cell-spot of hindwing pale. Head, thorax, and abdomen red; the thorax and vertex tinged with grey.

Expanse of wings: 25 mm.

One ? from Samar Island, Philippines, June, July 1896 (J. Whitehead). Closely resembles *Chrysocraspeda croceomarginata* Warr., from S. Java.

### 47. Chrysolene insolita sp. nov.

Forewings: cream-colour, slightly yellow tinged and dusted with reddish atoms chiefly along the veins; the costa, veins, and cross lines snuff-brown; a triangular patch of ground-colour at base, much suffused with reddish, and traversed by the brown veins; costal area broadly snuff-brown with darker specks; first line from one-fourth of costa, oblique outwards to subcostal, then irregularly oblique inwards, somewhat bent to one-third of inner margin, preceded by a broad snuff-brown band; median and outer lines parallel, excurved from costa to vein 4, then incurved,

strongly dentate and lunulate, interlacing on the veins, and so forming three pale blotches of ground-colour; subterminal and submarginal lines dentate and diffuse, partially confluent along veins, both interrupted between veins 3 and 5; a blotched marginal line; fringe pinkish cream-colour, with brown mottlings beyond veins; cell-mark irregularly rhomboid, whitish, edged with brown, and connected with the brown costa.

Hindwings: similar; the cell-spot silvery white, the lunules of the median line touching it; the whole of the anal area below median vein beyond outer line snuff-brown.

Underside straw-yellow, with all the markings pale purplish. Face, palpi, vertex, and antennae creamy yellow; thorax in front snuff-brown; patagia yellowish dusted with red and brown scales; abdomen pale yellow, with brown dorsal patches; the first two segments almost wholly snuff-brown, like the centre of thorax.

Expanse of wings: 26 mm.

Two && from Milne Bay, British New Guinea, December 1898 (A. S. Meek).

### 48. Chrysolene miniosa sp. nov.

Forewings: bright blood-red, slightly varied with yellow; a slight yellow line near base, most distinct on inner margin; a sinuous postmedian much interrupted line; cell-spot dark brown-red; costal area duller red; hindmargin narrowly yellow except at vein 4, where the red touches the margin; fringe yellow.

Hindwings: the same, but the lines not indicated; the cell-spot elongated, oval.

Underside duller red. Head, thorax, and abdomen like wings.

Expanse of wings: 22 mm.

One & from Penang, January 1897 (Curtis).

Also from N. China, in the British Museum Collection.

# 49. Craspedia exangulata sp. nov.

Forewings: bone-colour, the costa and lines greyish ochreous; first line obscure, curved, at one-third; median line from quite two-thirds of costa to middle of inner margin, irregularly denticulate, and with one acute tooth outwards on vein 6; outer line from costa at four-fifths to three-fourths of inner margin, similarly denticulate, the teeth marked with blackish, especially that on vein 6; subterminal and submarginal interrupted greyish ochreous lines, the subterminal with acute angle on vein 6 reaching hindmargin; fringe bone-colour; marginal and discal spots distinct, black.

Hindwings: without first line; cell-spot large.

Underside greyish tinged; cell-spots, outer line, and marginal spots distinct. Face and palpi blackish above, bone-colour below; vertex, thorax, and abdomen bone-colour; collar rufous.

Expanse of wings: 18 mm.

One 3 from Milne Bay, British New Guinea, December 1898 (Meek). Akin to C. desita Wlk., but paler, and with broader, shorter wings.

# 50. Craspedia nigrocellata sp. nov.

Forewings: bone-colour, with minute black atoms; costa and lines dull grey; first line, from quite one-third of costa to barely one-third of inner margin, marked

also by aggregations of black atoms on the veins; median shade obscure, denticulate; the whole basal half of wing as far as this shade more or less suffused with dull grey; outer line thread-like, lunulate, the teeth externally marked by blackish veindots; submarginal line pale, distinct, between two dull grey shades, and forming a sinus inwards opposite cell and on submedian fold; marginal spots black, distinct; fringe concolorous; cell-spot a round black annulus.

Hindwings: the same, without first line.

Underside paler; only the outer line and marginal dots expressed. Palpi and face black; vertex, shoulders and antennae, bone-colour; thorax and abdomen the same, but both thickly sprinkled with black atoms.

Expanse of wings: 21 mm.

One 3 from Dammer Island, December 1898 (H. Kühn).

### 51. Craspedia ocellata sp. nov.

Forewings: dull whitish, finely dusted with dark atoms; costa tinged with grey; the lines grey, diffuse, thickened on costa, sometimes ochreous tinged; first at one-fourth, slightly dentate on subcostal and median veins; median strongly dentate, outcurved beyond cell and inflected below; cell-spot large and blackish, preceded by a curved grey line, but surrounded by pale scales so as to appear ocellated; exterior line at three-fourths, finer and denticulate, marked by black dots on veins externally, and inflected beyond cell and on submedian fold; space between it and the pale submarginal line filled up by a lunulate grey fascia, which is interrupted beyond cell and on submedian fold; a row of black marginal lunules; fringe concolorous, with a broad darker interrupted line near base.

Hindwings: the same, but without first line.

Underside smooth; grey in forewings, paler in hindwings, with dark cell-spots; fringe paler beyond a slightly darker basal line. Face and palpi blackish; vertex white; thorax and abdomen like wings.

Expanse of wings: 19 mm.

A series from Tambora, Sambava, April—May 1896, 2500—4000 feet (Doherty.) Worn specimens appear very much whiter.

### 52. Craspedia spissitarsata sp. nov.

Forewings: ochreous, thickly but very finely dusted with blackish; costal edge blackish from base; the lines dark grey; first at one-fourth, curved, rarely plain; second and third nearly parallel to one another from three-fifths and three-fourths of costa to three-fifths and five-sixths of inner margin respectively, both angled on vein 6, the latter marked by distinct black vein-dots, and slightly bent outwards below; submarginal line pale, very indistinct; marginal spots black, linear; cell-spot black, distinct: fringe ochreous.

Hindwings: similar, but without first line.

Underside ochreous, without dusting, the forewings slightly grey-tinged; the two outer lines grey. Face and palpi blackish; vertex and shaft of antennae white; collar brownish; thorax and abdomen ochreous speckled with fuscous; hind-tibiae and tarsi of 3 enormously thickened and flattened, containing an expansile tuft of thick dark grey down.

Expanse of wings: 27 mm.

One ?, seven &&, from Loeboe Rajah, W. Samatra, April—May 1897 (Ericsson).

### 53. Dizuga sordida sp. nov.

Forewings: dingy greyish ochreous, with traces of lines at one-fourth and three-fourths indicated by dark vein-dots; a black cell-dot and row of black marginal dots; submarginal line indistinctly paler; fringe concolorous.

Hindwings: similar, but somewhat darker.

Head, thorax, and abdomen like wings; face shining white; palpi white.

Expanse of wings: 19 mm.

One 3, two 99, from Rossel Island, Louisiade Archipelago, February 1898 (Meek).

### 54. Eois (?) rufula sp. nov.

Forewings: rufous-ochreous, finely and thickly dusted with darker rufous, the lines nearly vertical; first from beyond one-third of costa to one-third of inner margin, slightly waved; median from beyond middle of costa to middle of inner margin, dentate; outer line from three-fourths of costa to two-thirds of inner margin, distinctly dentate; all these deeper rufous, the last followed by a paler band; submarginal pale, waved, between darker rufous shades; marginal line slightly darker, interrupted at the veins; fringe concolorous: cell-spot rufous.

Hindwings: similar.

Underside uniform ochreous flesh-colour. Head, thorax, and abdomen rufous; vertex white; collar deep rufous.

Expanse of wings: 18 mm.

Three ?? from Tugela, Solomon Islands (Woodford).

Hind-tibiae of ♀ with terminal spurs only.

# 55. Erythrolophus bipunctatus sp. nov.

Forewings: pinkish stone-colour, dusted with fine grey and blackish scales; the lines grey; first curved, at one-fourth, marked by black dots on the veins; median from two-thirds of costa to middle of inner margin, regularly dentate; outer line at five-sixths, dentate, the teeth marked by black points on veins, that on vein 6 approaching hindmargin; a row of triangular black marginal spots; fringe concolorous, with a line of grey scales near base; cell-spot black.

Hindwings: similar; but the cell-mark formed of two snow-white spots edged

with black scales; the fringe with minute black dots at base beyond veins.

Underside grey, suffused with rosy, especially in and below cell; the lines all dark grey. Face and palpi dark brown-red; vertex and antennae whitish; thorax and abdomen like wings; abdomen with black dorsal spots, and two on basal segment continuing the inner line of hindwings.

Expanse of wings: 30 mm.

One & from Milne Bay, British New Guinea, December 1898 (A. S. Meek).

Resembles Discoglypha hampsoni in the cell-spot of hindwings, but that has different antennae.

# 56. Hemipogon simplex sp. nov.

Forewings: dingy greyish ochreous, entirely without markings; fringe concolorous.

Hindwings: darker, dark grey towards anal angle, where the fringes are the same.

Underside slightly yellower; hairs of hindwings thickened and tufted towards anal angle, causing a slight folding under of the fringe there.

Head, thorax, and abdomen concolorous.

Expanse of wings: 15 mm.

One & from Sudest Island, April 1898 (Meek).

Both the costa and inner margin of hindwings are slightly concave, the hindmargin being convex.

### 57. Leptomeris postlineata sp. nov.

Forewings: white, with exceedingly fine black atoms; no antemedian lines; cell-spot small, black; four postmedian lines ochreous-grey; first from two-thirds of costa to beyond middle of inner margin, perfectly straight and oblique; the outer line and two submarginal lines irregularly waved, the inner of the submarginal lines the thickest of the four; minute black marginal dots at the ends of the veins; fringe white.

Hindwings: the same, without the cell-spot.

Underside white, without markings.

Vertex, top of face, upperside of palpi and forelegs rufous; rest of face, collar, thorax, and abdomen white.

Expanse of wings: 3 26 mm.; \$ 30 mm.

A pair marked simply India.

In the ? the lines are all finer, and the outer (second) line is altogether wanting.

### 58. Plocucha cristata sp. nov.

Forewings: pale ochreous, slightly dusted with darker; the costa at base marked with black-brown; first line near base, marked by black vein-dots; an indistinct curved central shade; outer line from three-fourths of costa to two-thirds of inner margin formed of blackish dots on veins, parallel to hindmargin; sub-marginal line obscure, between two darker incomplete shades; marginal spots large, black; fringe concolorous; the basal end of the costal flap black-brown.

Hindwings: the same, the basal line marked by black dots in a straight line; median shade more distinct; cell-mark large, angulated, with a thick black edge.

Underside pale ochreous, without any markings. Head, thorax, and abdomen ochreous, abdomen with black dorsal spots. Face and palpi brownish red.

Expanse of wings: 35 mm.

One & from Tugela, Solomon Islands (Woodford).

The costa of forewings is strongly shouldered at two-fifths from base, the middle third of costa being occupied by a thick scaly fold, the outer portion of which reaches to below middle of cell. The neuration is abnormal; the cell is only one-fourth of the length of the wing; the discocellular vertical; the first median rises at one-half, the second and third are stalked; radials normal, but the upper one slightly bent beyond cell; veins 7 and 8 are stalked from one-half of cell, and somewhat distorted; 10 and 11 are stalked, and both much thickened, from near base; 9 apparently absent; 10 and 11 run into the shoulder, 7 and 8 to apex.

### 59. Perixera ampligutta sp. nov.

In Nov. Zool. III. p. 376, I made this form an aberration of *P. pallida* Moore. I have since seen the same form from St. Aignan and other islands, and again lately from Milne Bay, British New Guinea. They are uniformly smaller than the type form, and the discal spot of hindwings is never variable in shape, so that I am forced to consider them a distinct species.

### 60. Perixera grisea.

Pisoraca (?) grisea Warr., Nov. Zool. V. p. 427 (\$).

The type  $\mathfrak P$  was referred to *Pisoraca* with a query, from its great resemblance to *Pisoraca sordidata* Warr. It must, however, be transferred to *Perixera*, as the comparison of a β from Milne Bay, British New Guinea, shows. This specimen, sent by A. S. Meek, and dated November 1898, agrees exactly in size and markings with the  $\mathfrak P$ . *P. sordidata*, which also comes from New Guinea (Humboldt Bay), is larger, 34 mm. as against 30 mm., and with a more ochreous ground-colour.

### 61. Perixera multipunctata sp. nov.

Forewings: dull reddish grey, the tint being due to very fine red dusting on a pale grey ground; all the lines except the median represented by rather large black spots on the veins; two black dots at base, on the median and submedian veins respectively; six black spots beyond, arranged in series of three, the middle one in each series farthest from base; in the first series one above subcostal vein, on median vein, and on inner margin; in the second, one on subcostal vein, one in cell, and on submedian fold; discal spot ocelloid, consisting of a large black spot at each end of discocellular, united by fine black lines; median shade zigzag, clearly marked, nearly touching cell-spot, and forming outward angles on veins 1, 3, and 4; outer line at three-quarters, twice sinuate inwards, the spots on vein 5 and on submedian fold nearer the base; subterminal line close beyond, indistinct, forming cloudy blotches below costa, beyond cell, and above inner margin; submarginal and marginal series of black spots; fringe concolorous.

Hindwings: similar; the discal ring with white centre, and only four black spots near base.

Underside of both wings dull red, the marginal spots expressed, the others all showing through. Face and palpi red above, paler beneath, vertex and antennae pale; thorax and abdomen like wings; thorax with a black spot in front, patagia with a large black spot in middle; abdomen with dorsal black spots, and the anal segments with black rings; basal segments laterally red.

Expanse of wings: 28 mm.

One of from Milne Bay, British New Guinea, December 1898 (A. S. Meek).

The hindwings are bluntly elbowed at vein 4; the hind femora are sinuous, with a deep reddish tuft of hairs.

# Problepsiodes gen. nov.

Differs from *Problepsis* Led., in the structure of the 3 antennae; these are armed with long curling fascicles of cilia, instead of being pectinated.

Type: Problepsiodes conjunctiva Warr. (Problepsis).

### 62. Problepsiodes argentisquama sp. nov.

Forewings: white; the costa ochreous-grey for two-thirds from base, the costal edge blackish; a large fig-shaped discal patch, ochreous-fulvous externally, mixed with grey and blackish internally, traversed near its edge by a line of metallic silvery scales; the discocellular in the centre followed by a straight line of similar scales toothed along the veins; a patch of silvery scales at base beneath the median vein; postmedian line ochreous, followed by a curved series of grey lunules and another finer ochreous-grey line before the margin; fringe white, with a faint grey median line.

Hindwings: with an oval ochreous-fulvous discal patch reaching from vein 6 to the submedian fold, its edges traversed by a line of silvery scales not connected above; a dark patch below it on inner margin; patches of silvery scales along veins 1, 2, and 3; outer lines as in forewing; a fine ochreous marginal line, bent at ends of veins 4 and 6.

Underside with the discal markings, a postmedian diffuse shade, and the costa of forewings smoky grey. Head blackish, thorax and abdomen white.

Expanse of wings: 30 mm.

One & from Penang, January-April 1898 (Curtis).

### 63. Ptochophyle laeta sp. nov.

Forewings: yellow, thickly dusted with reddish, and along the costa with fuscous strigae; the costal area grey-tinged; basal line hardly marked; central line blurred, greyish, slightly outcurved round the dark cell-spot; outer line reddish fuscous, parallel to hindmargin, thickened beyond cell and on submedian fold, and there joined by a dark cloud to hindmargin; a row of reddish marginal spots between the veins; fringe yellow with minute red dots beyond veins.

Hindwings: with a round snow-white cell-spot on a blurred grey central line; outer line curved; a large dark reddish fuscous blotch at anal angle.

Underside dull yellowish, with the lines and markings rosy. Palpi reddish; face brownish red; head, thorax, and abdomen yellowish.

Expanse of wings: 22 mm.

One 3 from Tambora, Sambava, low country, April, May 1896 (Doherty). Also from Dongala, south of Palos Bay, Celebes,

# 64. Ptychopoda sublactifera sp. nov.

Forewings: pale olive-ochreous; first and second lines very fine, at one-third and two-thirds, parallel to hindmargin and slightly crenulate, starting from black costal dots; a faint submarginal and subterminal shade; cell-spot and marginal spots minute, black.

Hindwings: without first line.

Underside without lines; the hindwings of the 3 clothed with rather coarse flaky white scales. Head, thorax, and abdomen concolorous; face and palpi dark brown.

Expanse of wings: 17 mm.

Seven & &, two & &, from Rossel Island, February, March 1898 (Meek).

Closely resembling P. actiosaria Wlk.

### 65. Ptychopoda subrubellata sp. nov.

Forewings: glistening, olive-ochreous; the lines darker, and sometimes the veins towards the hindmargin; costal region dusted with fine reddish scales, the costal edge red; the inner, median, and outer lines at even distances, starting from dull purplish costal spots at one-third, one-half, and two-thirds respectively, the median and outer slightly waved or denticulate, and all three, when the insect is fresh, marked with rufous; subterminal and submarginal darker shades; fringe concolorous, with slight rufous spots at ends of veins; cell-spot rufous.

Hindwings: the same, without first line.

Underside of forewings, except the fringe and inner marginal area dull red; of hindwings dull yellowish, with two curved submarginal reddish bands. Face, palpi, and forelegs reddish; vertex pale ochreous; collar reddish; thorax and abdomen ochreous; hind-tibiae thickly tufted, ochreous and reddish.

Expanse of wings: 14 mm.

Three & & from Milne Bay, British New Guinea, December 1898 (A. S. Meek). Closely related to Pt. sericeipennis Warr., from Fergusson Island.

### 66. Symmacra inconspicua sp. nov.

Forewings: grey, dusted with darker; the lines very obscure, and marked by black vein-dots; first at one-quarter, curved; second at five-sixths, the teeth on veins 4 and 6 slightly prominent; an indistinct dark median shade; cell-spot black; marginal line blackish, subcrenulate; fringe pale ochreous-grey, with a blackish spot at base beyond veins.

Hindwings: similar, but the cell-mark linear, black, ending at each end of discocellular in a snow-white dot.

Underside uniform dark cinereous; the outer and marginal line shown. Face and palpi dark brown; vertex white; thorax and abdomen grey.

Expanse of wings: 24 mm.

One ? from Milne Bay, British New Guinea, December 1898 (A. S. Meek).

In this example vein 11 of forewing anastomoses at a point only with 7, 8, 9, 10, not strongly as in the type species.

#### SUBFAMILY TRICHOPTERYGINAE.

### 67. Carige absorpta sp. nov.

Forewings: pale ochreous, finely dusted with brownish; a curved brown-grey line at one-third, and another at two-thirds, both slightly and irregularly crenulate; fringe glossy brown-grey; a brown cell-spot.

Hindwings: without first line.

Underside similar, but more thickly dusted with brownish. Head, thorax, and abdomen like wings.

Expanse of wings: 30 mm.

Numerous examples from Japan.

Forewings with apex little produced; hindmargin obtusely bent at vein 4.

Hindwings with hindmargin excised between veins 4 and 6.

### 68. Holorista marginepunctata sp. nov.

Forewings: pale glossy ochreous, crossed by a succession of uniformly disposed darker ochreous lines, fifteen in number, with pale shining scales between them; those forming the edges of the central fascia and the lines beyond marked on costa by five blackish dashes; a pair of contiguous dark spots along margin at the ends of the veins; fringe concolorous.

Hindwings: pale ochreous with the terminal lobe dark fuscous.

Underside uniform rufous-ochreous. Head, palpi, and abdomen ochreous; the thorax greener; apical segments of abdomen greenish grey; antennae black, annulated.

Expanse of wings: 30 mm.

One & from Negros, Philippine Islands, March—April 1896 (J. Whitehead).

In the fresh state, the ground-colour is probably pale green and the lines darker green, the tints recorded being due to fading.

### 69. Hypocometa rufulata sp. nov.

Differs from H. clauda from India in the black markings being much reduced and replaced by dark green; the central space greener, and the cell-spot less conspicuous; hindwings paler, whitish along costa, rufous-grey towards hindmargin; antennae and abdomen greenish ochreous, without any black markings. Underside of both wings greenish ochreous-grey with a rufous tinge towards margin, the dark and pale markings of the upper side showing through.

Expanse of wings: 40 mm.

Two ?? from S. Flores, October 1896, dry season (Everett).

### 70. Sauris nitidula sp. nov.

Forewings: pale shining green; first line close to base, marked with purplish throughout, and thickened at costa; followed by two waved olive-green lines; central fascia with its inner band double at costa and marked with purplish grey throughout, angled inwardly in cell and on submedian fold; the outer band consisting of three dentate green lines, marked with purplish grey on costa and below the median to vein 1, the outside two becoming confluent below middle; centre of fascia silvery green with a black discal spot; a pale silvery green band beyond central fascia, traversed by a faint green line and succeeded by a waved green line which below vein 6 is developed into five purplish black and prominent blotches, the minutely pointed ends of which fit into the teeth of the outer edge of a marginal grey-green fascia traversed by the pale veins, which have a large purplish spot at their extremities; fringe grey-green, with a pale spot beyond the black marginal spots.

Hindwings: grey.

Underside dark olive-grey; costa of forewings with a small dark triangle at middle. Head, palpi, and thorax greenish; abdomen ochreous-grey; antennae greenish grey, ligulate; the upper edge roughened.

Expanse of wings: 24 mm.

One & from Milne Bay, British New Guinea, February 1899 (Meek).

Distinguished from abnormis Moore, to which it is most allied, and from nigricincta Warr., by the grey-green, not black, antennae, the smaller size, and pale outer band.

#### SUBFAMILY TEPHROCLYSTIINAE.

### 71. Opistheploce rufula sp. nov.

Like Opistheploce cinerea Warr., from Batchian, but the ground-colour rufousochreous, the lines and shades brown. Hindwing with a dark antemedian and postmedian brown line.

Underside ochreous with the shades black.

Expanse of wings: 18 mm.

One & from Milne Bay, British New Guinea, January 1899 (Meek).

### 72. Tephroclystia basichlora sp. nov.

Forewings: with a narrow basal area, an exterior fascia and an oblique streak from apex pale green; the rest of the wing reddish fuscous; a dark spot on costa in the green basal area, which towards inner margin is edged with white; central fascia broad, crossed by eight darker lines all angled on subcostal, the space between the first and second and between the fourth and fifth darkened to form an internal and median band; the outer edge forming a bluntly rounded projection towards hind-margin between veins 3 and 4, then strongly inflected; the pale green postmedian band which follows it widened on inner margin and traversed by a darker line which becomes blackish at inner margin; the internal edge of the green band next the central fascia whitish; the green band is followed below costa by three or four black wedge-shaped marks with paler edges; a row of black marginal marks; fringe reddish fuscous, with distinct pale greenish flecks beyond the dark marks.

Hindwings: cloudy reddish fuscous, with black marginal line; fringe as in forewings. A curved paler postmedian fascia is faintly traceable.

Underside dark grey, with all the markings reproduced.

Face, palpi, vertex, and thorax pale green; the palpi fuscous-tinged towards the tips; abdomen darker, grey-green, with anal segment ochreous, probably green when fresh.

Expanse of wings: 22 mm.

One 3 from Negros, Philippine Islands, March—April 1896 (Whitehead).

Allied to chlorophora Swinh., and biviridata Warr.

# 73. Tephroclystia olivaceata sp. nov.

Forewings: shining olive-green, the markings deeper green; the green darkest on costa and inner margin; a basal patch, a broadish antemedian fascia, constricted in cell, a narrower postmedian fascia, outcurved in middle, and a duller submarginal fascia; the edges of all these fasciae are darker and are margined narrowly with a pale and then a dark fine line; marginal line fine, black; fringe green.

Hindwings: cinereous brown, with faint traces of two or three curved lines.

Underside greyish ochreous towards base, becoming darker grey towards hindmargin, with the lines still darker; hindwing with the lines distinct. Head and thorax olive-green; palpi pale green above, ochreous below; abdomen ochreous at base and on anal segments, blackish between, the segments finely edged with pale.

Expanse of wings: 24 mm.

One %, seven 3, from Milne Bay, British New Guinea, November 1898—February 1899 (Meek).

The costa of forewings is slightly rounded near base.

#### SUBFAMILY HYDRIOMENINAE.

### 74. Camptogramma squamulata sp. nov.

Forewings: grey, thickly dusted with dark grey, so as to present a somewhat mealy appearance; basal patch and central fascia darker; edge of basal patch faintly waved, from nearly one-third of costa to one-fifth of inner margin; a similar line nearer base; inner edge of central fascia parallel, but slightly angulated on subcostal; outer edge irregularly waved, bent on veins 6 and 4, from three-fourths of costa to two-thirds of inner margin, preceded by three dark waved lines; the fascia is preceded and followed by a similarly waved pale band with a dark line through it; submarginal line finely waved, pale, preceded by two dark shades with a paler one between them; marginal line black, waved, interrupted at the veins; fringe dark grey, with darker median line; cell-spot small.

Hindwings: similar, without basal lines.

Underside dark grey, dusted with white scales, with the edges of the central fascia showing as dark lines. Head, thorax, and abdomen concolorous.

Expanse of wings: 22-24 mm.

Two ? ? from Australia, without more precise locality.

The hindmargin of hindwings is slightly excised between veins 4 and 6. In the second example all the wings are nearly unicolorous and the markings very indistinct.

### 75. Glaucopteryx indecora sp. nov.

Forewings: pale grey, with a rufous tinge; the markings fuscous-brown; the basal patch and central fascia darkest; basal patch containing three curved dark fuscous lines, the central fascia four or five waved lines; edge of basal patch and inner edge of fascia curved, outer edge of fascia prominent at vein 6, and with two teeth at veins 4 and 3, incurved beyond cell, darkest towards costa; submarginal line indistinct, pale and waved, with a double darker patch preceding it beyond cell; marginal line crenulate, blackish; fringe reddish grey; the paler spaces on each side of the central fascia with a few pale scales in places and traversed by obscure reddish grey lines.

Hindwings: dull cinereous, darker towards inner margin, where there are traces of waved grey transverse lines; marginal line blackish, crenulate; fringe dark grey.

Underside dull cinereous, slightly rufous-tinged, with faint indications of some of the lines; both wings with dark cell-spots; head and thorax reddish brown; abdomen wanting.

Expanse of wings: 32 mm.

One & from Amurland, without further locality.

### Phoenissa gen. nov.

Forewings: triangular, broad; costa strongly arched near base and convex before apex, incurved between; hindmargin obliquely curved; anal angle distinct.

Hindwings: broad, the hindmargin fully rounded; anal angle square.

Abdomen of 3 with the anal claspers exserted. Antennae of 3 lamellate, faintly pubescent; of 2 simple; palpi short, porrect, second joint roughly haired beneath,

terminal joint pointed, small; tongue and frenulum present; hind-tibiae with four

spurs.

Neuration: forewings, cell nearly half as long as wing; discocellular angulated, the lower arm oblique; first median at four-fifths, second close before end of cell; radials normal; 7, 8, 9, stalked from upper angle; 10 and 11 stalked from four-fifths, 10 anastomosing with 8, 9; 7 and 11 from close before apex of areole. Hindwings with discocellular oblique, radial from the centre; the two subcostals stalked; medians as in forewings.

Type: Phoenissa brephos Oberth. (Odezia).

Related to *Eulype* Hüb., having the areole single; superficially like the New Zealand *Dasyuris* and *Notoreas*, from which it is, however, structurally distinct.

#### SUBFAMILY DEILINIINAE.

### Laophila nom. nov.

Lomographa Meyr. (non Hübner), Proc. Linn. Soc. N. S. Wales (2). VI. p. 633

(1891).

Meyrick places the two Australian species spodina and isocyma under Lomographa Hüb. But Hübner in the Verzeichniss, p. 311, gives four species of Lomographa, viz:—

3002. L. taminaria Schiff.

3003. L. permutataria Hüb.

3004. L. renularia Hüb.

3005. L. laevigaria Schiff.

Of these the first, the proper type of  $Lomographa = Bapta\ bimaculata$ , has simple antennae in the  $\beta$ ; the second is a Stegania, with short pectinations; the third, which is identical with the fourth, is a Ptychopoda, a genus of Sterrhinae. With no one of these is either spodina or isocyma congeneric.

# 76. Leucetaera subfuscata sp. nov.

Forewings: shining silky cream-colour, dusted with fine dark atoms; costa and fringe yellowish; cell-spot dark brown, edged with yellowish; a pale yellowish submarginal line from below costa shortly before apex to three-fourths of inner margin, outwardly marked by a few dark scales on each vein.

Hindwings: with the line curved, parallel to hindmargin throughout.

Underside shining, suffused throughout with pale greyish fawn-colour. Face and palpi black-brown; vertex, thorax, and abdomen like wings.

Expanse of wings: 34 mm.

One 3 from Mt. Mada, Burn (3000 ft.), September 1898 (Dumas).

The hindwings have a distinct fovea at base of cell.

# 77. Parasynegia parumnotata sp. nov.

Forewings: straw-colour, thickly speckled with rusty brown; an indistinct curved brownish line at one-fourth, starting from a short costal streak near base; a large roundish brown cell-spot; outer line from costa at three-fourths, fine and dentate, vertical to vein 4, then oblique and thicker to inner margin before middle, closely preceded throughout by a thick shade, the two forming a double line; a slight brownish streak from the angle at vein 4 to hindmargin intersecting a

thin brown nearly straight subterminal line; a marginal row of dark spots between the veins; fringe paler.

Hindwings: with a thick brown line near base, the continuation of the double outer line of forewings; a brown central line, dentate externally, with the small black cell-spot on its inner edge; a fine dentate postmedian line; and a thin brown submarginal line, curved at vein 6; marginal spots and fringe as in forewings.

Underside paler, all the markings greyer. Head, thorax, and abdomen straw-colour; tips of palpi and top of face brown; and a brown bar on basal segment of abdomen.

Expanse of wings: 40 mm.

One ? from Lawas, N. Borneo, April 1892 (Everett). Allied to pluristriaria Wlk.

#### SUBFAMILY BRACCINAE.

### 78. Bursada flavannulata sp. nov.

? Forewings: black, with a yellow blotch of variable shape in the apical third, reaching from subcostal vein to below vein 3, directed towards hindmargin above anal angle.

Hindwings: yellow, with broad black costal and hindmarginal border, which runs up half-way along inner margin, ending bluntly and diffusely.

Underside the same, but the black border of hindwings runs from middle of costa to just above anal angle. Head, thorax, and abdomen black; the abdomen with the basal segment yellow.

In the 3 the costa of forewings is straighter and the wing narrower than in 9; the yellow blotch shorter and broader; in the hindwings the black border is narrower, and ends in a point on veins 2 and 1.

Expanse of wings: ♂ 26—30 mm.; ♀ 32—34 mm.

Three &&, four & &, from Milne Bay, British New Guinea, November 1898—February 1899 (Meek).

#### 79. Bursada obnubilata ab. inversa nov.

Forewings: dull yellow, with the markings brownish fuscous; the costa brown to one-fourth from base, and an irregular brown blotch on inner margin; a brown fascia bent at middle from beyond one-third of costa to before middle of inner margin; a much broader fascia from two-thirds of costa to anal angle, the inner margin between the fasciae brown; the hindmargin irregularly brown; fringe brown.

Hindwings: with a blotch at apex, two at anal angle, a double blotch on middle of inner margin, some small spots at base, a small round cell-spot, and the fringe brown.

Underside with the markings reddish. Head and thorax brown; collar and abdomen yellow, the latter with brown segmental rings.

Expanse of wings: 44 mm.

One & from Mt. Mada, Burn (3000 ft.), September 1898 (Dumas).

Although at first sight so different in appearance, I consider this specimen to be a pale local form of *obnubilata* Warr., also from Buru, to which it stands in much the same relation as *B. alboguttata* Pag., from South Celebes, does to *B. fidonioides* Wlk., from North Celebes.

### Bursadopsis gen. nov.

Agreeing in all points with Bursada except in the structure of the antennae. In the  $\beta$  the pectinations, though ciliated themselves, are very much finer than in Bursada; in the  $\beta$  the antennae are *not* pectinated at all, but merely sharply serrate beneath.

Type: Bursadopsis praeflavata sp. nov.

### 80. Bursadopsis basalis sp. nov.

Forewings: deep velvety brown, with a small orange spot in base of cell, and a large orange blotch beyond middle, not touching costa, much larger in  $\mathcal{F}$  than  $\mathcal{F}$ , in the  $\mathcal{F}$  not reaching below vein 2, in the  $\mathcal{F}$  with a short tail below that vein; fringe concolorous.

Hindwings: with the base and hindmargin broadly, the central third of costa narrowly brown; the rest of wing orange; middle third of inner margin with the fringe orange.

Underside like upper.

Head, thorax, and abdomen brown; palpi, two spots on prothorax, some lateral spots on abdomen, and terminal sixth of antennae yellow; hind-tarsi wholly yellow; fore- and mid-tarsi yellow spotted with brown.

Expanse of wings: 3 34 mm.; 9 38 mm.

Two &&, two ♀♀ from Laiwui, Obi, September 1897 (Doherty).

### 81. Bursadopsis praeflavata sp. nov.

Forewings: velvety brown-black, crossed by an orange band of uniform breadth extending from just before middle to two-thirds of costa, rounded off before reaching the anal angle, and joining inner margin at three-fourths as a narrow projection; a minute yellow costal spot before apex; some yellow scales at hindmargin beyond cell and on submedian fold, produced as yellow spots in the otherwise concolorous fringe.

Hindwings: orange, with broad black marginal border with internally irregular crenulate edge from about middle of costa to above anal angle, the orange forming a somewhat rectangular projection in middle.

 $\beta$  with the orange band of forewings much reduced, not more than half as wide as in  $\beta$ , from costa just beyond middle, and not reaching below vein 2; the costal edge of the orange patch more thickly dotted with black than in the  $\beta$ ; no yellow scales before hindmargin nor spots in the fringe, but the yellow dot before apex is present; in the hindwings the internal edge of the marginal border is less irregular, more uniformly curved.

Underside like upper, but the base of cell of forewings with some yellow scales. Head, thorax, and abdomen, above and below, and legs all black; sides of abdomen and inside of fore coxae yellow.

Expanse of wings: 3 26 mm.; 9 28-30 mm.

Four 33, five ??, from Sudest Island, Louisiade Archipelago, April 1898 (Meek).

In one  $\mathcal{P}$  the orange band of forewings above is narrower than in the rest, and rounded off as in the  $\mathcal{SS}$ , but below vein 2; on the underside, however, it agrees with normal  $\mathcal{PP}$ .

#### 82. Cosmethis basiflava sp. nov.

Forewings: smoky slate-colour, the lines and markings purplish black; two diffuse curved lines near base, followed by a pale slate-coloured fascia, which is whitish in the cell before the black cell-spot, which stands on a slightly curved darker slate-coloured line; a purplish black curved line beyond this, nearly in middle, thickened on the veins, incurved at vein 2; a broad similarly curved blackish postmedian band; a submarginal series of long black wedge-shaped blotches between the veins, interrupted between veins 3 and 4 by a white blotch extending from vein 8 to 3, the inner edge of which is vertical and straight, the outer diffuse, the blotch widening between veins 3 and 4 and passing into slate-colour; hindmargin diffusely purplish black; fringe dark slate; a large dull yellowish patch at base between median and submedian veins, extending slightly beyond each.

Hindwings: without basal lines; two thick straight purplish black bands, antemedian and median, enclosing the black cell-spot, the white blotch extending only from vein 6 to 3; two slight dull-yellow streaks on submedian fold, one before the antemedian, the other beyond the median band.

Underside dull smoky purple, the cell-spots large and darker; the white blotches similar in both wings; both wings with paler spaces before the cell-spots. Head, thorax, and basal segment of abdomen dull purplish slate-colour; abdomen yellow; pectus and legs all slate-colour.

Expanse of wings: 78 mm.

One ? from Great Kei, April 1898 (H. Kühn).

Distinguished from both barbara Cram., and rosenbergi Pag., by the absence of buff or yellow markings, except at base of forewings.

### 83. Craspedosis flavimedia sp. nov.

Forewings: black; the middle third occupied by a broad orange fascia from costa that does not quite touch the anal angle; fringe black.

Hindwings: wholly black.

Underside like upper, but duller. Head, thorax, and abdomen all black.

Expanse of wings: 3 40 mm.; 9 52 mm.

Four 33, four 99, from Milne Bay, British New Guinea, November 1898—February 1899 (Meek).

The orange blotch in the  $\circ$  is paler and broader.

# 84. Craspedosis sibilla sp. nov.

Forewings: black, with a central curved white fascia from vein 6 to inner margin, before which it is narrower, and below the submedian vein with only the outer half white.

Hindwings: with the fascia broader and nearly reaching costa, its inner edge straight; fringes black in both wings.

Underside duller black, with the white fascia not reaching below vein 2 and with slight dark striations. Head and thorax black; abdomen black with yellow segmental rings; face and pectus yellowish.

Expanse of wings: 48 mm.

One ? from Patani, Halmahera, November 1896 (Doherty).

Allied to C. munda Wlk.

### 85. Craspedosis xanthosoma sp. nov.

Forewings: unicolorous dark olive-brown, without any markings.

Hindwings: similar, with indications of blackish wedge-shaped blotches before

hindmargin between the veins.

Underside grey-black, without any brown tinge. Head, thorax, and basal segment of abdomen like forewings, but less brown; abdomen yellow; legs blackish.

Expanse of wings: 70 mm.

One 3 from Mt. Mada, Buru, 3000 ft., September 1898 (Dumas); another from Laiwui, Obi, September 1897 (Doherty).

### 86. Xanthomima biquadrata sp. nov.

Forewings: with the basal third orange, the costa and outer two-thirds black; the orange portion rectangular, its outer margin running straight from below one-third of costa to two-thirds of inner margin.

Hindwings: with the line separating the two colours nearly straight and just

beyond the centre.

Underside the same; the black not running up along the costa. Head and collar black; thorax and abdomen orange.

Expanse of wings: 44 mm.

One & from Little Kei (H. Kühn).

Differs from X. seminigra Warr., from Kei Toeal = Little Kei, in having the edges of the orange areas straight instead of curved; and the costa of hindwings beneath wholly orange as far as the black outer half.

#### SUBFAMILY ABRAXINAE.

#### 87. Abraxas comminuta sp. nov.

Forewings: white; the markings dark leaden grey tinged with fulvous; a large dark fulvous-tinged basal blotch, its outer edge twice curved; a blotch on middle of costa connected with an oval one on discocellular, touching three smaller and contiguous ones on veins 2, 3, 4; another in a line with the last three on vein 1, preceded by two more on the submedian fold and inner margin; a submarginal sinuous series of spots starting from a larger costal blotch, and ending in two short streaks before anal angle, which represent the usual blotch; apex, hindmargin, and fringe wholly dark, with a prominence basewards in the middle.

Hindwings: with the hindmargin and fringe dark; a submarginal series of spots on the veins, preceded by grey spots on inner margin and costa, which in one case are connected by spots on veins. All the spots and blotches contain a fulvous

nucleus; that on the cell of forewings a fulvous pale centred annulus.

Underside like upper. Face and palpi yellow; head, thorax, and abdomen yellow spotted with black.

Expanse of wings: 39 mm.

Four && from S. Flores, October 1896, dry season (Everett).

### 88. Abraxas extralineata sp. nov.

Forewings: semi-transparent dull whitish; costal edge and subcostal vein blackish throughout, the costal blackish only beyond first line, which is near base,

angled at its upper two-thirds, then oblique; the basal area within it yellow, with one or two small black spots; cell-spot blackish; second line close to hindmargin, curved near costa, then parallel to hindmargin as far as vein 1, thence to inner margin at middle; a marginal blackish line; fringe (probably) whitish.

Hindwings: with only the outer and marginal lines.

Underside the same as upper, but duller; the base hardly yellow. Head, thorax, and abdomen pale yellow; thorax and abdomen spotted with black; palpi blackish.

Expanse of wings: 48 mm.

One & from Mt. Mada, Buru, 3000 ft., September 1898 (Dumas).

The costa of hindwing is strongly shouldered near base.

### 89. Abraxas sesquilineata sp. nov.

Forewings: pale cream-colour; the costa distinctly black; the subcostal vein slightly marked with black near base; first line black, at one-fourth, nearly vertical; second line from two-thirds of costa to three-fourths of inner margin, strongly outcurved to submedian fold, then vertical, black; followed by a third black line, curved regularly from costa to submedian fold and there stopping short; marginal line black; fringe blackish, with the tips pale; cell-spot black.

Hindwings: with a faint line near base; outer line from four-fifths of inner margin, separating almost immediately into two parallel curved lines of which the inner one is semi-obsolete beyond vein 6, and the outer stops short at vein 4; marginal line slightly lunulate.

Underside similar; a black spot near base of costa in each wing. Head, face, thorax, and abdomen yellow; the abdomen with rows of black spots; legs marked with smoky grey.

Expanse of wings: 54 mm.

One & from Mount Mada, Buru, 3000 ft., September 1898 (Dumas).

#### SUBFAMILY SCOTOPTERYGINAE.

### 90. Scotopterix immundata sp. nov.

Forewings: dingy grey, thickly covered with darker specks; all the markings indistinct; an obscure line at one-fourth, from a brown costal spot, followed by a diffuse cloudy waved shade a little before the middle preceding the dark cell-spot; exterior line from two-thirds of costa, below which it is bent, then quite straight to three-fifths of inner margin, marked by dark spots on the veins; marginal area rather darker, through which an indistinct pale submarginal line of spots can be traced, that between veins 3 and 4 larger and paler, and preceded by a darker cloud; fringe concolorous.

Hindwings: similar, without first line and with the second line curved.

Underside paler, less dusted; cell-spots black, distinct; outer line and submarginal shade expressed, most clear on costa; the pale spot between veins 3 and 4 of forewings plain, and the apex paler. Face and palpi black; thorax and abdomen like wings.

Expanse of wings: 3 40 mm.; 9 52 mm.

Two & &, one ♀, from Beyrut.

#### SUBFAMILY BISTONINAE.

#### 91. Amraica recursaria Wlk. ab. semifusca, nov.

Forewings: grey, peppered with black scales and tinged in places with ochraceous; the lines black; the whole of the central area between first and outer line suffused with brownish fuscous, the outer edge of the suffusion extended from angle of outer line to the apex.

Hindwings: with the same suffusion, the inner edge of submarginal line below costa also black-brown.

Face velvety black above, brown below.

Expanse of wings: 60 mm.

One ? from Dammer Island, November 1898 (H. Kühn).

I have referred this as an aberration to A. recursaria; but it may prove a constant local form. At first sight it appears very distinct.

#### SUBFAMILY ASCOTINAE.

### 92. Alcis (?) paucisignata sp. nov.

Forewings: dull brownish ochreous, speckled and striated with blackish; first line at one-fourth, curved and indistinct; outer line fine, blackish, irregularly crenulate, at two-thirds. A small dark cell-spot, followed by an obscure median shade; marginal area beyond outer line filled up with brownish and finely striated with black, the apical area paler; fringe concolorous beyond a fine dark marginal line.

Hindwings: wholly suffused with brownish and speckled with black, except the narrow basal area, which remains paler.

Underside similar, but the ground-colour yellower, and the brown tints brighter; traces of a dark interrupted submarginal shade. Head, thorax, and abdomen like wings; face and palpi browner.

Expanse of wings: 35 mm.

One ? from the Gunong Ijau, Perak, March 1898 (2000-3000 ft.) (Butler).

Probably near Alcis tenera Warr., from India, but its exact position must remain doubtful in the absence of the 3; veins 10 and 11 of forewings free.

# 93. Calicha rufiplaga sp. nov.

Forewings: almost black, with a slight rufous tinge; the lines black; first curved and double from about one-fourth of costa to near base of inner margin; second from three-fourths of costa to just beyond middle of inner margin, indented below costa and thickened to vein 6, followed on costa by a small ochreous mark; submarginal line only shown by the darker internal border, black at costa; it is preceded above vein 6 by a dull rufous blotch; an indistinct median shade; marginal line and fringe blackish.

Hindwings: with antemedian, postmedian, and submarginal black lines; cell-spot black.

Underside smoky black-brown; the cell-spots and exterior line black, and the rufous blotch showing through. Head, thorax, and abdomen all black.

Expanse of wings: 40 mm.

One & from Strathfield, N. S. Wales (Kerslake).

Veins 10 and 11 of forewings short-stalked.

### 94. Chogada vittata sp. nov.

Forewings: white, sparsely dusted with black scales; first line at one-fourth, black and curved, preceded by two smoky shades, making the basal area as a whole dark; second line from costa at three-fourths to two-thirds of inner margin, irregularly dentate lunulate, bent outwards beyond cell, then incurved, followed by a smoky dark shade; submarginal line uniformly lunulate, preceded and followed by dark shades, the inner one blacker and regular, the outer interrupted below middle; fringe dark grey, with black marginal lunules at base; cell-spot sometimes wholly black, sometimes with a pale centre; generally a faint thin median line through it; sometimes this line is thickened with a shade which fills up more or less the whole of the central space; in these specimens all the other shades are thicker.

Hindwings: like forewings, without first line, the base itself smoky.

Underside smoky black, the discal spots large and velvety black, each preceded and followed by a whitish space. A small white spot at apex and below middle of hindmargin in each wing. Head, thorax, and abdomen whitish, speckled with grey; abdomen generally with black basal ring.

Expanse of wings: 39 mm.

Four \$\partial\$ from Rossel Island, Louisiade Archipelago, February—March 1898 (Meek).

The species is nearest to C. fuliginosa Warr., from Engano.

### 95. Darisa (?) marmorata sp. nov.

Forewings: stone-grey, dusted slightly with black scales and mottled with numerous transverse grey strigae; the costa with black spots at the origin of lines; first line from about one-fourth of costa to one-third of inner margin, angled outwards above and below the median vein and marked with black dots on the veins, the portion below submedian vein oblique outwards; second line (median) from a large black costal spot before middle to about middle of inner margin, interrupted, and marked by dark scales on the veins; outer line from a similar costal blotch just beyond middle to two-thirds of inner margin, marked by blackish vein-spots, slightly excurved from vein 6 to 2, the portions of this and the median line below submedian vein oblique inwards; this line is followed by a broad rufous-grey shade with denticulate edges on the veins, also starting from a dark costal spot; submarginal line pale, obscure, but preceded by a curved series of short wedge-shaped black blotches between veins except between 4 and 5; a marginal series of black spots; fringe grey; no cell-spot visible above.

Hindwings: with thick black curved antemedian and strongly denticulate black postmedian line; a black linear cell-mark: the rest as in forewings, but the hindmargin very strongly denticulate.

Underside dull smoky grey, darker towards hindmargins where there is an obscure submarginal shade; cell-spots in both wings black, linear, distinct. Head, thorax, and abdomen grey like wings; abdomen with a short black lateral streak on basal segments; face brownish grey.

Expanse of wings: 56 mm.

One ? from Brown River, British New Guinea, 1898 (Weiske).

Forewings with vein 11 out of 12; 10 anastomosing with 11 and again at a point with 9.

## 96. Ectropis hypochromaria.

Forewings: greenish ochreous, dusted with fine blackish atoms; the costa marked with very fine striae and black spots at the origin of the lines; first obscure, from costa at one-fourth to inner margin near base; outer line from two-thirds of costa to middle of inner margin, somewhat irregularly waved, incurved below median vein and forming an inward sinus on submedian fold, closely approaching a dark sinuous median shade which touches the occlloid cell-spot; all three lines partially doubled by a dark shade, especially the outer line, the outer shade of which has a strongly marked dentate edge containing a dark blotch below vein 7, and running to costa at four-fifths; submarginal pale, waved, interrupted, with dark clouds before and beyond it, and a blackish blotch from it to hindmargin below vein 7; marginal spots black; fringe concolorous.

Hindwings: without first line; the median double line broader and diffuse,

the shade beyond outer line forming a dark blotch on inner margin.

Underside dingy ochreous, with the markings and round cell-spots obscurely darker; a diffuse submarginal dark cloud. Head, thorax, and abdomen like wings; the abdomen with a black band at base.

Expanse of wings: 52 mm.

Two && from Milne Bay, British New Guinea, February 1899 (A. S. Meek).

The pectus, femora, base of abdomen and anal segments are all thickly clothed with hair; the hind-tibiae much swollen, with a pencil of hairs, and four short spurs, the tarsi short.

## 97. Ectropis rufibrunnea sp. nov.

Forewings: reddish brown, varied with paler, and thickly black-speckled, especially along the veins; costa dotted with black; the lines marked mainly by black dots on the veins, and starting from larger blackish costal spots; first from one-fourth of costa to one-fifth of inner margin, followed by a slightly paler fascia; median line outcurved below costa, then oblique to one-third of inner margin; outer line from two-thirds of costa, outcurved at veins 6 and 5, then oblique and closely approaching median line on submedian fold, to middle of inner margin: submarginal line wavy, whitish, followed by a dark patch between veins 6 and 7, above which the apex is paler; fringe red-brown, a diffuse red-brown cloud on discocellular.

Hindwings: the same, but without first line, and with the basal area paler.

Underside dull cinereous, mottled with darker; both wings with large dark cell-spot and smoky dark submarginal fascia; costa of forewings ochreous strigulated with fuscous; the apex paler. Head, thorax, and abdomen like wings; palpi dark, with the tips pale; face dark brown, paler below; legs blackish with the joints ochreous.

Expanse of wings: 45 mm.

One & from Mackay, Queensland.

Distinguished from the other species of the genus by its red-brown coloration and somewhat stouter build.

### 98. Gasterocome subfasciata sp. nov.

Forewings: pale brownish ochreous, varied with darker brown; the three lines indistinct, being lost in the brown fasciae accompanying them, but all three starting from concise black-brown costal spots at one-fourth, two-fifths, and two-thirds respectively; the lines are denticulate and run parallel to hindmargin; the shade preceding the submarginal line externally denticulate, and starting from a large brown costal blotch, which is followed on costa by two small blotches; a row of triangular dark marginal spots between the veins; fringe concolorous.

Hindwings: with pale ochreous base; a dark brown line at one-fifth; a distinct dentated dark postmedian line, approaching first line on inner margin, the included space darker brown containing a black cell-spot; the postmedian line is finely edged with pale and then a brown cloud; submarginal line and marginal area as in forewings.

Underside pale ochreous with grey striations; a brown-grey submarginal fascia, joining margin opposite cell; cell-spots and costal spots of forewing brown Head, thorax, and abdomen brown and ochreous.

Expanse of wings: 36 mm.

One & from Penang, April 1898 (Curtis).

The double tuft of hair beneath on the basal segment of abdomen is blackish and submetallic.

## 99. Maidana pallidiplaga sp. nov.

Forewings: pale greyish ochreous, thickly dusted with minute black atoms; the costa with dense blackish striae; first line at one-fourth, marked generally by black vein-spots; second line from three-fourths of costa to three-fifths of inner margin, slightly curved, marked also by black vein-dots; a straight oblique median shade from two-thirds of costa to middle of inner margin, sometimes hardly visible, at others strongly marked in blackish; cell-spot linear, blackish; submarginal line pale, indistinct, except when preceded by a dark dentate shade, but always forming a pale oval blotch between veins 3 and 4, and sometimes followed by a black spot below apex; a marginal row of black spots; fringe concolorous; the narrow space between median and outer lines is generally paler than the rest of the wing.

Hindwings: without first line; the postmedian denticulate.

Underside paler and greyer; with black cell-spots and denticulate postmedian line. Head, thorax, and abdomen concolorous with wings.

Expanse of wings: 3 40 mm.; 4 44 mm.

Two && from Rossel Island, February—March 1898 (Meek); eight &&, 2 & \partial, from Sudest Island, April 1898 (Meek). The single typical & is darker marked than the &&, and in particular has the dark edging of the submarginal line more distinct both above and below. The other & is so strongly marked as to require a distinct aberrational name.

ab. fumipicta nov.

Ground-colour yellow-ochreous, with the basal line and patch, the oblique median line, and marginal third beyond and including the outer line dark smoky fuscous; the costal area and a small oval patch between veins 3 and 4, as well as the extreme hindmargin ochreous; hindwings with the central band and marginal third smoky fuscous, the hindmarginal area, especially towards anal angle, slightly varied with ochreous.

## Microtome gen. nov.

Forewings: narrow, the costa nearly straight, curved close to apex; apex bluntly rounded; hindmargin faintly excised between veins 6 and 8, below obliquely curved.

Hindwings: narrow; apex rounded off; hindmargin well rounded and subcrenulate; anal angle excised from vein 1.

Abdomen of 3 long and slender; antennae bipectinated; forehead produced below; palpi thick and stout, oblique in front of face, terminal joint minute; tongue and frenulum present; hind-tibiae thickened, with four short spurs; forewing with distinct fovea.

Neuration: forewings, cell half as long as wing; discocellular bluntly angled; first median at three-fifths, second close before end of cell; radials normal; 7, 8, 9, stalked; 10 and 11 stalked. Hindwings with costal shortly approximated to subcostal; first subcostal nervule and second median close before ends of cell.

Type M. trigonata sp. nov.

## 100. Microtome trigonata sp. nov.

Forewings: pale ochreous, more or less dusted with fuscous and in parts suffused with ochraceous; the lines ochraceous, indistinct, and often obsolete, all starting from brown-grey spots on costa; first from one-fifth of costa to nearly one-third of inner margin, oblique outwards to subcostal vein, then vertical; median diffuse, slightly before middle, angled, like the first, then slightly oblique to near middle of inner margin; outer line fine, at two-thirds, sinuous and marked by dark vein-dots, closely followed by a darker line or shade which starts from costa just before apex; the space between this line and the median forms a pale costal triangle, suffusedly edged with ochraceous; marginal area ochraceous, through which the submarginal line is marked above the median by pale black-edged spots or lunules; fringe ochraceous.

Hindwings: paler, without any ochraceous suffusion; an obscure and diffuse antemedian shade, a curved slightly waved postmedian line, and a macular submarginal line; cell-spot brown, in one example large and round; the two lines are brown on inner margin.

Underside ochreous, speckled with ochraceous; the lines ochraceous and more distinct, the second on the hindwing double; the dark submarginal spots of forewings and cell-spot of hindwings larger and blacker. Head, thorax, and abdomen ochreous.

Expanse of wings: 34 mm.

Two 33 from Rossel Island, February-March 1898 (Meek).

## 101. Poecilalcis indigna sp. nov.

Forewings: ochreous-whitish, speckled and suffused with pale fuscous and brown; the lines dark brown; first from one-fourth of costa to two-fifths of inner margin, bent above the median vein; second from two-thirds of costa to three-fifths of inner margin, outcurved above incurved below, denticulate and lunulate; the included space filled up with pale brown and containing a comparatively large dark cell-spot; submarginal line pale, indistinct, preceded by brownish clouds and followed beyond cell and at costa by brown shades; a row of elongated dark marginal spots; fringe ochreous.

Hindwings: worn; apparently with postmedian and submarginal lines.

Underside similar, with the markings obscure. Head, thorax, and abdomen ochreous; face and palpi dark brown.

Expanse of wings: 26 mm.

One & from Penang, March 1898 (Curtis).

Quite the smallest species of the genus.

## 102. Sysstema farinosa sp. nov.

Forewings: whitish, powdered with grey; the lines olive-fuscous, rather indistinct, darker on the costa; first near base; second median, outcurved round the large dark cell-spot; postmedian slightly angled on veins 6 and 4, submarginal formed of brownish lunules; an interrupted dark marginal line; fringe concolorous.

Hindwings: with sinuous antemedian, postmedian and incomplete submarginal

lines.

Underside dull grey. Head, thorax, and abdomen whitish, like wings.

Expanse of wings: 24 mm.

One 3, one 9, from Ron Island, July 1897 (Doherty).

Forewings without fovea; veins 7, 8, 9, stalked; 10 and 11 coincident.

### SUBFAMILY SELIDOSEMINAE.

## 103. Casbia anomalata sp. nov.

?. Forewings: reddish fuscous, speckled with darker; the lines blackish fuscous, indistinct towards costa; first from one-fifth of costa to one-fourth of inner margin, curved, preceded on inner margin by an orange-red blotch; second (median) from middle of inner margin, parallel to first as far as median vein, then curved outwards towards middle of costa; third from three-fourths of inner margin, sinuous, approaching second at costa; fourth (submarginal) black and waved, preceded by orange-red patches almost touching third line; a row of black marginal spots; fringe concolorous; cell-spot ocelloid, dark with pale centre.

Hindwings: like forewings, but with a single dark antemedian line, and the

other markings more indistinct.

Underside rufous-ochreous with a broad blackish marginal fascia. Head, thorax, and abdomen concolorous; palpi dark fuscous.

Expanse of wings: 24 mm.

One ? from Woodlark Island, April 1897 (Meek).

Along with this  $\mathfrak P$  is a  $\mathcal S$  captured at the same time and place, but not in such good condition, which probably belongs to the same species; inasmuch, however, as it differs structurally from the  $\mathfrak P$ , I describe it separately. The forewings are longer and narrower; the cell is quite half the length of the wing, whereas in the  $\mathfrak P$  it is scarcely half as long; in the  $\mathcal S$  therefore the occlloid cell-spot is near to the third line, while in the  $\mathfrak P$  it is just beyond the second; vein  $\mathfrak P$  rises at one-third from the base, instead of as in the  $\mathfrak P$  at one-half, and there is no fovea. The markings, as far as they can be made out, are similar to those of the  $\mathfrak P$ . The hind-tibiae are not thickened, and have two pairs of slender spurs, much farther apart from each other than in the  $\mathfrak P$ ; in both the palpi are porrect and longer than usual in the genus; but while in the  $\mathfrak P$  they are dark fuscous and closely scaled, in the  $\mathfrak S$  they are pale reddish ochreous, and much longer, the second joint being

hairy, the third smooth and slender and bent at an angle with the second; the shaft of the 3 antennae is white with the pectinations fuscous.

Expanse: 26 mm.

## 104. Parametrodes aurantiacata sp. nov.

3. Forewings: deep yellow with orange-red strigae and suffusion; the costa with dark fuscous striae and ochreous intervals; first line diffuse, at one-fourth, orange-red; second at two-thirds, thicker, angled outwards at vein 4, and inwards on the submedian fold; followed by a white blotch beyond cell and on submedian fold; marginal area beyond suffused and thickly striated with orange-red; fringe concolorous; cell-spot red.

Hindwings: like forewings, but without first line.

? with the lines more defined; the red striae mixed with fuscous; the outer line followed by pale yellow instead of white blotches.

Underside duller; the outer line red and narrower; a diffuse fuscous marginal fascia. Head, thorax, and abdomen yellow, speckled with orange-red; the shoulders wholly red.

Expanse of wings: & 26 mm.; \$ 30 mm.

A pair from Sudest Island, April 1898 (Meek).

The hindwings of the  $\delta$  are not so disproportionately large as in the type species, dispar.

#### SUBFAMILY SEMIOTHISINAE.

## 105. Azata funebris sp. nov.

Forewings: dark purplish grey, with very much less pale scaling than in A. variegata Warr.; the pale scales being restricted to the space between middle and outer lines; the costa dotted with yellow and fuscous purple; three dark brown transverse lines, finer and less wavy than in variegata, the outer preceded by yellowish scales; submarginal line hardly shown, except by a prominent pale subapical spot above vein 6; an interrupted dark purplish marginal line; fringe white at base, broadly mottled with fuscous beyond the veins.

Hindwings: with only two lines; the submarginal faintly paler.

Underside white, thickly peppered with purplish, the lines and a broad submarginal fascia purplish; the subapical spot of forewings white. Head, thorax, and abdomen like wings.

Expanse of wings: 26 mm.

Three ♂♂, two ♀♀, from Milne Bay, British New Guinea, November 1898—February 1899 (Meek).

The hindmargin of hindwings is rounded, without an elbow in the middle; the antennae of  $\beta$  have longer ciliations, and the forewings are without the conspicuous hyaline fovea of A. variegata.

# Genus Bithiodes Warr., Nov. Zool. I. p. 439.

When I made this genus for the species—up to that time referred to Luxiaria Wlk.—in which the angle of the hindwings is at the end of vein 6 instead of vein 4, I named Acidalia inexactata Wlk., as the type, being under the impression that it was the oldest name for obliquata Moore. To my surprise, when lately

examining Walker's types in the Oxford Museum, I at once recognised the type of inexactata, a  $\,$ ?, as being the insect described by me as Nadagarodes straminea (cf. Nov. Zool. III. pp. 303 and 411), and by Meyrick as Luxiaria ditrota (cf. Tr. E. S. 1897 p. 76). Both these names must therefore sink to inexactata, and obliquata Moore (= inexactata, Warren not Walker) stand as type of Bithiodes.

## 106. Evarzia tripunctata sp. nov.

Forewings: whitish, dappled with ochreous and fuscous; the costa oliveochreous with fine black dots; the lines ochreous-olive, browner on the costa; first
close to base, bent below costa; second a little before middle, oblique, and slightly
sinuous; the outer fine and brown, forming a strong angle outwards towards the
excision, then sinuous to two-thirds of inner margin; a dark brown costal streak
beyond it; a darker shade beyond the outer line running on to apex and embracing
the excision; black marginal dots between the veins and a fine black line along the
excision; fringe black-brown along the excision, concolorous with wings below.

Hindwings: with a dark spot at base, a diffuse double sinuous antemedian line before the black cell-spot; a nearly straight brown postmedian line with three black-lunules contiguous to it and each other, the middle one between veins 3 and 4; marginal third darker, olive-ochreous with a waved submarginal line through it, preceded by a single black blotch between veins 3 and 4; fringe pale, with small marginal dots at base.

Underside white, mottled with dark fuscous; a partially double wavy dark brown median line and treble outer line lying in a fulvous shade, which in forewings is forked to costa and excision, leaving the apex pure white with black speckles; head, thorax, and abdomen greyish.

Expanse of wings: 36 mm.

One & from S. Flores, October 1896, dry season (Everett).

### 107. Gonodela effusata ab. uniformis nov.

Forewings: uniform dark grey, mixed with ochreous scales; the inner and median lines very indistinct, marked at the costa with darker; outer line fine, dark brown, edged with ochreous scales, altogether ochreous at the angle; a white semi-hyaline blotch between veins 2 and 3 near their rise, a smaller one between 3 and 4, and another beyond the angle of outer line; cell-spot small, inconspicuous; fringe unicolorous, with an interrupted black line at the base; a faintly darker submarginal shade.

Hindwings: with distinct black cell-spot beyond a waved dull central line; a fine black slightly undulating line just beyond the middle; a dull submarginal cloud; pale patches, as in forewings, at base of the median veins.

Underside yellowish with thick brown speckling; white patches of forewing very distinct; a curved brown exterior line as well as traces of the brown angulated line of the upper side; submarginal shade blackish; fringe glossy grey with paler base; hindwings with black cell-spot, but the pale blotches very obscure. Head, thorax, and abdomen concolorous with wings.

Expanse of wings: 37 mm.

One & from Solan, near Simla, August 1896.

## 108. Nadagara irretracta sp. nov.

Forewings: pale greyish fawn-colour, faintly dappled with darker; first line from one-third of costa to before one-third of inner margin, strongly outcurved in cell close to the dark brown cell-spot, but indistinct except on costa and inner margin; second line from inner margin a little beyond middle to costa shortly before apex, irregularly crenulate and slightly curved; unlike the other species this line is not retracted at costa; the inner line is edged outwardly and the outer internally with brown, while the inner is edged internally and the outer externally with whitish; a faint dentate submarginal line preceded by a faint brownish shade and edged outwardly with whitish; a row of chocolate-brown marginal lunules; fringe (?) concolorous.

Hindwings: similar; no inner line, the outer line straight; marginal line chocolate-brown, crenulate.

Underside greyish white, thickly striated with fawn-brown; cell-spots and outer line brown. Palpi, top of face, and edges of vertex fulvous; face brown; thorax and abdomen like wings; shoulders darker.

Expanse of wings: 35 mm.

One & from Tugela, Solomon Islands (Woodford).

Nearest to N. pulchrilineata Wlk.

## 109. Nadagarodes duplicipuncta sp. nov.

Very closely allied to N. mysolata Wlk. (= ceramata Wlk. = nunctata Feld.); but whereas in that species the lines are all oblique, and straight, parallel to hind-margin, in the present one they are curved and crenulate. This will distinguish both sexes. The ?? moreover may be easily separated by the white apical blotch of the underside of forewings, which in mysolata is single, and contained between veins 7 and 8, and in duplicipuncta double, extending to vein 6. The species occurs, along with mysolata, in St. Aignan; Ron Island; Ansus, Jobi; Sudest Island and Rossel Island; but at present I have not seen it from New Hanover or Goodenough Island, from both of which localities mysolata has lately been received, nor from the original localities of that species, Mysol and Ceram. Felder's Psamatodes nunctata is identical with mysolata.

Expanse of wings: 40-44 mm.

The St. Aignan specimens are all smaller than the average size.

# 110. Tephrinopsis lineata sp. nov.

Forewings: dingy whitish, covered with short fine transverse brown striae; a dark brown inner line at one-fourth, angled in cell, then oblique inwards; a diffuse cloudy oblique median shade touching first line and containing a small dark cell-spot; exterior and submarginal lines oblique and close together, thick, slightly crenulate and diffuse; a short dark line at anal angle; an interrupted dark marginal line; fringe concolorous.

Hindwings: with thick diffuse antemedian shade, and three postmedian lines, the last bent at middle; cell-spot black.

Underside yellower, with the lines and striae reproduced. Head, thorax, and abdomen like wings.

Expanse of wings: 26 mm.

One & from Penang, April 1898 (Curtis).

#### SUBFAMILY ENNOMINAE.

## 111. Gonophaga albipuncta sp. nov.

Forewings: pale fawn-colour, speckled with fuscous, and towards hindmargin tinged with brown; the lines marked by fuscous dots on veins; first from one-fourth of costa to one-third of inner margin, oblique to subcostal, then vertical; second from three-fourths of costa, oblique outwards to vein 6, then oblique inwards to inner margin just beyond middle, and therefore approximated to first line; cell-spot annular, with white centre and dark edge; a cloudy curved postmedian shade; submarginal line indistinct, dark brownish, marked by black white-centred dashes on veins beyond it; marginal line lunulate and dark above the angle, brown below it; fringe brown, like the marginal tint.

Hindwings: with cell-spot as on forewings; a curved postmedian line of black dots; submarginal line nearly straight from just before apex to anal angle, dark brown, edged externally with pale, which between veins 4 and 6, and 6 and 7, is developed into a whitish spot; marginal half of wing tinged with deep brown except beyond submarginal line from anal angle to middle.

Underside yellow, strigulated with brown; outer half of wings deep brown, becoming lilac-grey beyond submarginal line; inner edge of the brown fascia sinuous, preceded by a row of black spots on the veins; cell-spot white with brown edge, the lower half of median shade brown; hindwings the same. Head, thorax, and abdomen ochreous, speckled with fuscous.

Expanse of wings: 3 39 mm.; 4 44 mm.

One 3 from Ron Island, July 1897 (Doherty); two \$\parallel \gamma\$, one \$\delta\$, from Sudest Island, April; two \$\delta \delta\$, one \$\parallel\$, from Rossel Island, February—March 1898 (Meek).

In forewings veins 10 and 11 are coincident, anastomosing with 12, 10 not afterwards anastomosing with 8, 9, as in *Anisographe* Warr.; but in shape of hindwings the species agrees with *Gonophaga* rather than with *Anisographe*. In one  $\mathcal{F}$  from Sudest Island vein 10 does anastomose at a point with 8, 9.

# 112. Hyposidra incomptaria.

Lagyra incomptaria Wlk., xxxv. p. 1539, ♂ (Aru). Lagyra corticaria Wlk., xxxv. p. 1540, ♂ (Tondano).

Hyposidra variabilis Warr., Nov. Zool. III. p. 306 (Fergusson Island).

Having seen many more examples of this variable species, I am satisfied that my variabilis is identical with Walker's incomptaria. Among five specimens (one ?, four &&), lately received from Sudest Island, collected by A. S. Meek, one & in particular is so strikingly marked that I here record it as aberr. pallidiplaga. The ground-colour is a mixture of deep brown and purplish grey; the lines, the upper half of central fascia, the apical blotch and submarginal shade are brown; but the inner margin from near base to beyond middle bears an irregular yellowish ochreous patch extending to the median vein, and transversed by the inner, median, and exterior brown lines. Hindwings dark purplish fuscous, the patch at anal angle brown with a yellow spot on it on inner margin.

### 113. Mimomiza annulata sp. nov.

Forewings: yellow, suffused in places with bright fulvous and speckled with fuscous; the lines lead-coloured; first from one-fourth of costa, oblique outwards from costa, angled in cell, to one-third of inner margin; outer line with white outer edge, oblique from three-fourths of inner margin towards apex close before which it is acutely angulated and retracted to costa; an oblique dark costal streak at two-thirds; cell-spot annular; fringe apparently yellow.

Hindwings: paler, not suffused with fulvous; the outer line at three-fourths

curved parallel to hindmargin; no first line; cell-spot annular.

Underside yellowish, with coarse fuscous speckles; the cell-spots dark; outer line indicated on both wings, and beyond it a curved series of dark dots on veins, which are faintly marked also on the upperside. Head, thorax, and abdomen yellow, suffused with fulvous.

Expanse of wings: 35 mm.

One ? from S. Flores, October 1896, dry season (Everett).

In forewings veins 7, 8, 9, 10, 11 are stalked, and 11 anastomoses with 12, their apex is produced, and the hindmargin bent at vein 4.

Note.—Abraxas compositata Guen.: not an Indian insect. In the Brit. Mus. Cat. xxiv. p. 1120 (1862), Walker referred four specimens of an Indian insect to Abr. compositata Guen., the types of which came from N. China and Japan. In the Proc. Zool. Soc. Lond. p. 653 (1867), Mr. Moore, accepting Walker's identification, erected, not without reason, a new genus, Vindusara, for the Indian species, which he figured (Pl. XXXII. fig. 6); and it is recorded as Guenée's species in Cotes & Swinhoe's Catalogue of 1888, and subsequently by Sir G. Hampson in the Fauna of Brit. India, Moths, iii. p. 296; nor did it occur to me, when rearranging the Geometridae in the British Museum Collection, to suspect the correctness of Walker's assumption, accepted, as it apparently had been, by general consent. I have lately had occasion to refer to Mr. Leech's paper on the "Lepidoptera Heterocera of China, Japan, and Corea," published in Ann. Mag. N. H. 1897, and was surprised to find no record of the occurrence of a species which, in India, seems to be no rarity. On referring to Guenée's original description, it was at once apparent that this Indian species, for whose identification Walker was responsible, has nothing whatever to do with Guenée's so-called Abraxas from China. The expanse of the Indian insect, as given by Hampson, is 74-80 mm.; Guenée gives 46 mm. for his Chinese species. Secondly, Guenée makes no mention of any excision in the hindmargin of the hindwings, a peculiarity not occurring in any Abraxas, and which could not have escaped his observation; but, lastly and positively, he speaks of "a bundle of yellow hairs at the base of the forewings in the 3 on the underside." Thus the omission of the species A. compositata Guen., under that name, in Mr. Leech's paper became intelligible. In fact, Abr. compositata Guen. is nothing else than Lygris junctilineata Wlk., a species with which Guenée's description agrees entirely, but which does not occur in India, as neither does Walker's compositata in China. The Indian insect must therefore be quoted for the future as compositata Walker, non Guenée. The superficial resemblance in colour and markings between the two insects may possibly have misled Walker; though how he could have overlooked the mention of the tuft of hairs below it is difficult to understand. To modern devotees of neuration will be interesting to observe, as a result of the

comparative inattention to structural differences which characterised the earlier entomologists, that both Guenée described as an *Abraxas* an insect which belonged to another subfamily, the *Larentinae*, and Walker referred to the same genus *Abraxas*, the identical Larentid with which he had previously misidentified a *Boarmia*.

### NOTE ON TESTUDO SUMEIREI.

BY WALTER ROTHSCHILD, PH.D.

IN May 1898, Mr. Leopold Antelme sent me a giant land tortoise purporting to be an abnormally large famels of Track be an abnormally large female of Testudo elephantina. On its arrival at the London Zoological Gardens, the first discovery I made was that, instead of being a gigantic female, it was a male of (for elephantina) moderate size, the carapace measuring about thirty-eight inches in a straight line. I immediately examined the animal more closely, and found that it was quite distinct from T. elephantina in many characters. It was nearly as wide as long, while T. elephantina is half as long again as wide; it was quite flat on the top of carapace, while T. elephantina is strongly arched; it was sharply declivous in front, while T. elephantina is much more gradually deflexed; its head was narrower, and lastly, its neck was half as long again, as in T. elephantina. On comparison with the figures and descriptions in Dr. Günther's monograph, I came to the conclusion that it was an exceedingly large example of the supposed extinct Mauritius species, Testudo inepta, and as such it was registered. Some months afterwards, being struck by the animal's attitudes and action, I had it photographed in a variety of positions, and became at once aware on seeing the prints that I had seen such pictures before. On going through my various pictures of tortoises, I discovered that my tortoise agreed exactly with the specimen still living in the Artillery Barracks at Mauritius. I then proceeded to look up Mr. Sauzier's description of the Mauritius specimen which he named Testudo sumeirei, and I found that my animal agreed in all points with the Mauritius specimen. I therefore have the great pleasure of recording a second living specimen of Testudo sumeirei.

Now, as to the history of these *Testudo sumeirei*, it is known that in the year 1766 five large tortoises were brought to Mauritius from the Seychelles by the French Chevalier Marion de Fresne, and were known as the Marion tortoises. In the year 1833 one of these was sent by Sir Charles Colville to the London Zoological Gardens, but soon died. A second arrived a few years later. Both these were recorded as *Testudo indica*, as were all giant land tortoises up to 1871; since then these two have been supposed to have been *Testudo vosmaeri* of the Isle of Rodriguez, but evidently were two *T. sumeirei*.

Testudo sumeirei is a little-known species whose characters have not been well diagnosed, for being only known from living specimens, the essential and osteological features have not been available for examination. It was thought by Mr. Sauzier



Warren, William. 1899. "New Drepanulidae, Thyrididae, Epiplemidae, Uraniidae, and Geometridae from the Oriental and Palaearctic Regions." *Novitates zoologicae : a journal of zoology in connection with the Tring Museum* 6, 313–359.

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