

VIII. *On the Pyralidina collected in 1874 and 1875 by Dr. J. W. H. Trail in the Basin of the Amazons.*
By WILLIAM WARREN, M.A., F.E.S.

[Read February 6th, 1889.]

THE insects treated of in the accompanying paper were collected in 1874 and 1875 by Dr. J. W. H. Trail in the Basin of the Amazons. The Rhopalocera and larger Heterocera were worked through and described by Mr. A. G. Butler in papers published in the 'Transactions' of the Entomological Society of London for the years 1877, 1878, and 1879. The remainder, namely, Deltoids and *Pyralidina*, were about the same period cursorily inspected, and in some cases identified, by the same gentleman; but from pressure of work and other causes were not exhaustively worked out and made the subject of a fourth paper. This unfortunate delay is all the more to be regretted, inasmuch as the collection contains not only several species at present unrepresented in the British Museum Collection, but likewise a considerable number of curious and aberrant forms.

The specimens themselves are 293 in number, belonging to 125 different species, about 50 of which I have been unable to identify as previously described or figured, while in several cases the formation of new genera has seemed necessary.

For the circumstances under which the collection was made, and the precise localities explored, it will be enough to refer to Mr. Butler's first paper, published in the 'Transactions' of the Entomological Society of London for 1877, p. 105.

There are, however, a few species to which special reference seems called for. And first, there are two very remarkable species of Pseudo-deltoids, *viz.*, an example of *Tortricodes alucitalis* of Guenée, described by him from a single damaged specimen, and a new species more closely allied to Walker's *Gaberasa ambigualis*, in

both of which a fissure occurs in the hind margin of the fore wing, which thereby becomes bilobed, and at first sight appears fractured; but on closer inspection the marginal fringe is seen to be continued along both sides of the fissure. As might be expected, the neurulation is modified and distorted; the nervules, which, were it not for the fissure, would run straight to the hind margin, are deflexed round its extremity, and curved downwards into the inner margin of the upper lobe. So unusual a departure from ordinary wing-structure would seem to warrant the separation of the species thus modified as a separate family.

The next group to which I would direct attention is that to which *Azamora penicillana*, Wlk., of the present collection, and Lederer's *Amblyura corusca* belong. The members of this group are all characterised by the possession of a membranous scale-clad pouch on the upper surface of the fore wing of the male near its base, extending usually half across the wing, but in one species embracing its whole width.

The number of species is probably very considerable; the British Museum Collection possesses as many as thirteen, and several more are figured in Felder's work; but the main point on which I wish to insist is that these species present us with every variety in the form of labial palpi that occurs in the Pseudo-deltoids: and I therefore come to the conclusion that the proper place for the family is in that group, and not, where Lederer would locate them, among the *Pyrallidina*.

In conclusion, I will just call attention to the peculiar genus *Diastreptoneura*, in which the neurulation is curved and distorted; and to the four new genera, *Dysglyptogona*, *Erebostrota*, *Triommatodes*, and *Atopomorpha*, the species of which, both from their superficial appearance and their neurulation, arouse a suspicion that, just as the Noctuids pass into the Pseudo-deltoids, so these may in reality be nothing but abnormal *Geometridæ*. One thing is certain, that like the Rhopalocera, the Heterocera of South America are among the most variable and erratic in the world.

ERASTRIADÆ.

1. *Erastria amazonia*, n. s.

Fore wing glossy, ochreous grey, with a dark blotch at the base of the costa, and another towards the apex beyond the second line, which is whitish. Hind wing dark fuscous. Expanse of wings, 20 mm.

The specimen is so much worn that it is impossible to give an exact description. It comes near *Erastria* (?) *basistigma*, Wlk., xv., 1762, from the West Indies, and to an unnamed species from Madagascar.

One ♂. R. Jutahi, February 5th, 1875.

REMIGIADÆ.

2. *Isogona inferior*, n. s.

Fore wings sandy brown, dusted with paler atoms, with two white transverse lines; the first straight before the middle, the second starting from the middle of the costa, at first runs obliquely outwards, forming a small sharp point, and then, slightly sinuous, inwards to the inner margin below the reniform stigma, the base of which it touches; both stigmata large and distinct, slightly darker than the ground colour, and finely bordered with paler; an oblique white streak from the apex nearly unites with the angle of the second line; three whitish costal dots before the apex; submarginal line represented by an indistinct series of dark blotches; a row of brownish lunules along the hind margin, festooned with lighter; the veins towards the hind margin paler. Hind wings with the reniform stigma, second line, and submarginal row of spots repeated. Head, thorax, and abdomen all sandy brown; the base of the abdomen bearing a short blackish tuft; under side dull sandy, unmarked, except by the submarginal row of spots. Expanse of wings, 24 mm.

One ♀, taken at the mouth of R. Sapo, Dec. 13th, 1874.

The species is considerably smaller than *Isogona continua*, Gn., of which Walker's *Massava scissa* is a synonym, and the coloration is different, but I think there can be no doubt that it is congeneric.

THERMESIADÆ.

3. *Dagassa marginata*, n. s.

Fore wings slaty fuscous, with four brown,—when fresh reddish brown,—transverse lines; the 1st, curved, near the base; the 2nd, angulated, before the middle; the 3rd, outwardly curved and

sinuous, just beyond the middle, and followed closely by a fascia-form dark shade; the 4th submarginal, very indistinct, consisting of a series of wedge-shaped paler-edged dashes; orbicular stigma a dark dot between lines 1 and 2; reniform stigma a faint dark lunule between 2 and 3; costa narrowly cream-coloured from the base to the 3rd line, on which pale ground the origin of the first three lines appears blackish; four cream-coloured dots before the apex; fringes dark, with the extreme tips cream-coloured, except at the elbow above the anal angle, where they are wholly dark. Hind wings more brown, without the slaty tinge, with two straight transverse lines, the basal one brownish red, single; the central double, with a paler line between; fringes bright pale cream-coloured, with a central darker line towards the anal angle, preceded there by a curved cream-coloured mark. Palpi pale fuscous, the tips of 2nd and 3rd joints paler; head, thorax, and abdomen slaty fuscous; tip of the abdomen cream-coloured. Under side smooth, fuscous; fore wings with the 2nd and 3rd lines and both stigmata, hind wings with both lines, and a basal spot, dark; a submarginal row of dark blotches more or less distinct on all the wings. Expanse of wings, 30 mm.

Three females, one from R. Jurua, Nov. 12th, 1874, the others from R. Jutahi, 25th and 27th of January, 1875.

HYPENIDÆ.

4. *Hypena obditalis*.

Hypena obditalis, Wlk., Cat. Lep. Het. B. M., xvi., p. 48.

One ♂, without any note as to capture or locality.

In Walker's description "marginal lunules *white* with *black* points" should read "*black* with *white* points."

5. *Hypena munda*, n. s.

Fore wings dark mouse-coloured, with two transverse lines, the 1st slightly oblique, the 2nd straight, nearer each other on the inner margin than on the costa, the former edged internally with bluish grey and externally with brown, the latter externally with bluish grey and internally with brown; submarginal line sinuous, consisting of dark spots with white dots externally; marginal lunules black, with white dots internally; a minute black dot, often obsolete, represents the orbicular stigma; hind wing dull fuscous. Head, thorax, and abdomen the same. Under side pale fuscous, with two whitish spots showing through from the submarginal line near the costa. Expanse of wings, 30 mm.

Three examples, all females, taken at light in different localities, viz., Rio Mamellos, a tributary of Rio Madeira; Jurueña, on Rio Purus; and Rio Jurua: the respective dates being June 1st, Sept. 24th, and Nov. 7th, 1874.

Akin to *H. hemonalis*, Wlk., Cat. Lep. Het. B. M., xvi., p. 228, from Brazil, but smaller; the wings narrower and paler, and wanting the white apical lunule, which is so conspicuous a feature in that species; the palpi also differ. In *H. hemonalis* they are blackish, the 3rd joint fringed with black to the apex; in *H. munda* they are greyish fuscous, the 3rd joint slender, white, with a laterally flattened brush of dark brown scales in the middle projecting above and below.

6. *Hypena fuscipennis*, n. s.

Fore wing dark fuscous, dusted with lilac-grey scales, especially in the spaces beyond each of the three transverse lines. First line oblique, 2nd sinuous, forming two rounded projections externally, and approaching the 1st on the inner margin; the intermediate space darkest, edged with fulvous lines; beyond the 2nd line is a greyish curved fascia, then a dark brown one; submarginal line pale, wavy, most distinct towards the anal angle; fringes dark fuscous, with a strong black basal line of dashes, which scarcely form lunules. Hind wing dark fuscous, as are the head, thorax, abdomen, and legs. Under side dark fuscous, without markings. Expanse of wings, 30 mm.

One ♂. R. Madeira, May 24th, 1874, at light.

7. *Hypena exoletalis*.

Hypena exoletalis, Gn., Delt. & Pyr., 29, 21.

One ♂ at light. Serpa, Feb. 13th, 1875.

The specimens in the Brit. Mus. Collection are from Rio Janeiro and St. Domingo.

HYPHYPENA, n. g.

Fore wing short and broad; costa arched from base to apex, which is slightly produced; hind margin very slightly incurved below the apex, and somewhat projecting above the anal angle; inner margin straight. Hind wing rounded. Neuration: cell extending beyond the middle, rather broad, and situated nearly midway between costa and inner margin; first subcostal branch starting before the middle of the cell; second at about one-fifth

before the end; fifth just before end; third out of the fifth near its origin, the fourth out of the fifth just before the apex, these last two embracing the apex; radials from the ends of the disco-cellular; first median branch at one-fifth before the end, curved; second and third from the lower angle of the cell; interno-median fold strongly expressed. Hind wing with the costal free; the sub-costal with two long branches; first median branch at two-thirds; second and third on a short stalk from the lower end of the cell, along with the radial. Antennæ with angulated joints, ciliated beneath. Palpi long, upcurved, hairy; the second joint curved, cut off sharply at its apex; the third only half the length of the second, with a fine small point; forehead rough; tongue present.

This genus, as illustrated by the single species below mentioned, is characterised (1), by the abnormally large palpi compared with the size of the insect, these organs being half as long as the fore wings; and (2), by the absence of all the usual markings of the fore wing, which superficially somewhat resembles that of a *Tortrix*.

8. *Hyphypena bipunctalis*, n. s.

Fore wing ochreous-yellow, mottled with yellowish brown, and suffused with the same colour along the hind margin, and at the base and centre of the costa; a small black spot in mid-wing before the middle, and a double brown-black spot beyond the middle, both surrounded by paler; fringe pale, more or less varied with dark brown, especially towards the anal angle and the apex. Hind wing pale ochreous, with only the hind margin diffusely darker; fringes pale, with a reddish dividing line. Head, face, palpi, and thorax reddish ochreous; abdomen whitish ochreous. Under side: fore wing reddish ochreous, with the costa and fringes varied with brown-black; hind wing pale ochreous, the costal half speckled with brown, and a series of brown dashes at the base of the fringes. Expanse of wings, 16 mm.

Five males, all from R. Jurua, Oct. 31st, Nov. 1st and 6th, 1874.

The species bears a superficial resemblance to *Hypena obagitalis*, Wlk., from Ega, and to *Bucinna divisalis*, Wlk., xxxv., 1983 (= *Betousa divisalis*, Wlk., xxxiv., 1209) also from Ega; but may be distinguished at once by its very large palpi and the absence of any transverse lines: besides which the neuration is quite different.

Before describing the next species it will be convenient to draw attention to an oversight of Walker's. In the Cat. Lep. Het. B. M., xv., p. 1640, he instituted the genus *Chadaca* for the single species *atrosignata*, represented by a ♀ from Venezuela. In vol. xxxiii., p. 1003, he erects a new genus *Rhosologia* for a species *porrecta*, represented by a ♂ from Mexico. This last is evidently the ♂ of *C. atrosignata*, and is slightly larger than the ♀. As Walker's description of the genus was taken from a ♀ only I append a fuller one.

CHADACA, Walker.

Fore wing broad; costa straight; apex slightly produced and acute; hind margin bulging out above the anal angle, and faintly incurved below the apex; hind wing rounded. Abdomen of ♀ short and blunt, not reaching beyond the hind wings; of ♂ longer, with more or less pronounced anal tuft. Palpi with the second joint ascending, convex above; third half as long as the second, rostriform, porrect, pale above and externally dark; forehead with a projecting tuft, pale, which, when the palpi are erect and contiguous, forms one surface with the terminal joint; tongue ill-developed. Antennæ with a longer lateral bristle on each segment, and slightly pubescent beneath in the ♀, densely pubescent in the ♂. Fore legs, like the outside of the palpi, always dark. ♀ rather smaller than ♂.

On p. 1641, *loc. cit.*, Walker remarks that "this genus has not much of the characters of the *Thermesiidæ*, and more of those of the *Poaphilidæ*, and may help to connect the two families." Its proper place, however, would rather seem to be before *Rivula*, from which I doubt whether it can be satisfactorily separated. Like it, *Rivula* has the frontal tuft concolorous with the terminal joint of the palpi; the outside of the latter and the fore legs dark; the ♀ smaller than the ♂, and the neuration identical. It differs apparently only in size and coloration.

Other species which should, I think, be referred, if not to the genus *Rivula* itself, at all events to its neighbourhood, are *Ecregma damætesalis*, Wlk., xvi., 252 (= *Glympis eraconalis*, Wlk., xix., 852), from Villa Nova; *Hyamia palpitatalis*, Wlk., from Ega; *Alinzia inconspicua*, Butler, from Natal; *Egnasia argillacea*, Butler, from Japan; and *Egnasia fallax*, Butler, from Japan.

9. *Chadaca modesta*, n. s.

Fore wing pale mouse-colour, with all the markings very indistinct; a minute black dot at the base; a wavy dark line before, and another just beyond, the middle; submarginal line consisting of a series of lunate black spots between the veins; reniform stigma dark, conspicuous; a faint trace of dark lunules before fringe, which is concolorous. Hind wing, like fore wing, without markings. Head, palpi, face, thorax, abdomen, and legs all pale mouse-colour; outside of the palpi and fore legs brown. Under side without markings. Expanse of wings, 30—32 mm.

One ♂, Prainha, Nov. 14th, 1873; one ♀, Solimoes, Nov. 24th, 1874.

An inconspicuous-looking insect, the ♀ smaller than the ♂.

10. *Chadaca concatenalis*, n. s.

Fore wing whitish grey, dusted with minute dark dots, with a small black spot at the base, a subcontiguous loop of four or five black blotches, suspended from one-third to two-thirds of the costa; a row of black spots at base of the fringes, which are concolorous with fore wing. Hind wing paler white, without any dark frecklings, darker towards the hind margin, and with a dark line at the base of the fringes. Under side dull cinereous, with darker costa, dark base to the fringes, and a large dark central spot on each wing; outside of the palpi and fore legs blackish; head, face, thorax, and abdomen whitish grey. Expanse of wings, 24 mm.

One ♂ from R. Jamunda, April 11th, 1874.

11. *Epizeuxis marginata*, n. s.

Fore wing ochreous, tinged towards the hind margin with reddish; costa narrowly dark at the base, and with several dark spots, of which three in the middle are larger; a small black dot at the base in the middle, and a grey patch on the inner margin; a curved transverse line before the middle, and a sinuous denticulated one beyond, which approaches close to the first on the inner margin; each line rises from a dark costal spot; reniform stigma large, dark, lying in an obscure central shale, which also starts from a black costal spot. A zigzag pale submarginal line, preceded and followed by dark grey shading; fringes ochreous, with a series of fine curves along their base, the ends of which are produced so as to form a dark V-shaped mark internally between each curve,

by which the appearance of a festoon is produced. Hind wing ochreous, suffused almost entirely with fuscous, except a diffuse patch near the anal angle. Some irregular black lines and spots along the centre; fringes as in fore wing. Head, palpi, and thorax ochreous; abdomen ochreous, with the middle segments greyer; terminal joint of the palpi with a broad black ring. Under side dull ochreous; fore wing more suffused with grey; all with a dark central spot; hind wing showing traces of two or three irregular bands. Expanse of wings, 24 mm.

One ♂. R. Jurua, Oct. 26th, 1874.

PARAMIMETICA, n. g.

Fore wing with straight costa, acute apex, and curved hind margin. Hind wing rounded. Markings a succession of sinuous, alternate, pale and dark lines and shades, the same on both wings; the second line always preceded by a dark shade. Palpi laterally compressed, porrected, slightly ascending, the second joint roughly fringed above, the last joint short, upcurved, widened with scales in the middle, the whole having a feathery appearance; antennæ finely ciliated in both sexes. Neuration: Fore wing, 1st median branch from very little beyond the middle of the median; 2nd before the end; 3rd and 4th from the lower angle of the cell; 1st subcostal branch from the middle of the subcostal; 2nd just beyond it, running close and parallel to the 1st; 4th, and 5th short-stalked from upper angle of cell; 3rd out of the 4th just before the apex; radial from near the upper angle of cell. Hind wing: costal vein free; the two subcostal branches from the upper angle of cell; 1st median branch starting quite near the base before the middle of the median; 2nd and 3rd short-stalked from the lower angle of cell; radial from the lower part of the disco-cellular; the cells of both wings short.

I propose this genus for the reception of two or three species of small size and delicate structure, geometri-form in appearance, having the markings of the fore wings reproduced on the hind wings, which do not agree well with any other *Hypenidæ*. Besides the two species here described, *Hypena sotiussalis*, Wlk., xix., p. 840, the type from St. Domingo, and *Megatomis* (?) *judicatalis*, Wlk., also from St. Domingo, must be included in the genus.

12. *Paramimetica subrufa*, n. s.

Fore wings pale ochreous, suffused with yellow, and with deeper ochreous or reddish brown markings; first line undulating, white,

edged with darker; 2nd white, undulating and denticulated, starting from the middle of the costa and running out very obliquely towards the apex, then curving inwards and running parallel to first line; the space between these two lines is darker than the rest of the wing, and the second line is always preceded by a broadish brown fascia. Reniform stigma large, consisting of two dark spots surrounded by lighter; submarginal line white, undulating, parallel to the others; a marginal row of black spots. Hind wings with all the markings reproduced, and with a distinct black central spot. Head, thorax, abdomen, and palpi yellowish ochreous; under side sandy; all the wings with a black central spot, and a row of black marginal dots; a broad paler band beyond the middle. Expanse of wings, 18 mm.

Four females, one male; one female from Juruena, R. Purus, Sept. 24th, 1874; one female from Gaviao, R. Jurua, Nov. 10th, 1874; a female from the same river, Nov. 7th, and a pair *in cop.* on Nov. 1st, 1874.

Closely allied to *Megatomis* (?) *judicatalis*, Wlk., which has a dark brown apical spot, and also to *Hypena sotiusalis*, Wlk., both from St. Domingo. Indeed, the only difference is that *P. subrufa* has the three lines more or less edged with pale ochreous, the ground colour paler and clearer, and the fascia before the second line much more conspicuous.

The species, however, varies much in itself; two of the five specimens are ochreous, with the markings brown, and approaching much nearer to *H. sotiusalis*, though still paler; the other three have a pale yellow ground, and the markings pink.

13. *Paramimetica imitatrix*, n. s.

Fore wing ochreous, suffused with darker; first line thin, curved, brown, before the middle; second curved outwards, slightly dentated near the costa, then curving obliquely basewards, preceded by a broad brown fascia, which is followed by a paler one, in the middle of which lies a blackish-brown blotch; submarginal line indistinct; a marginal row of black dots, preceded by a dark grey fascia; fringes ochreous mixed with fuscous; orbicular and reniform stigmata represented by two black dots. Hind wings with the markings of the fore wings repeated. Head, thorax, and abdomen all ochreous, the dark fascia of the hind wings being represented across the abdomen. Under side ochreous, with

indistinct lines; the two stigmata and the central spot on the hind wing large and dark. Expanse of wings, 16 mm.

One ♀ from Papunha, R. Jurua, Nov. 5th, 1874.

The species differs from *P. subrufa* in having the margin of all the wings scalloped, while in *P. subrufa* they are plain. The specimen is damaged about the head, and the final joint of the palpi (or rather palpus, as there is only one left), is denuded of scales and thin; so that possibly a better series of examples will justify its separation from the genus.

PARAMACNA, n. g.

Fore wing very broad, almost triangular; costa curved at the base, then straight to the apex, which is pointed; hind margin slightly bent inwards below the apex, then broadly convex, and again bent in a little before the anal angle, which is well-marked; hind wing rounded, with the hind margin slightly elbowed in the middle; wings with fine scaling, and with unusual markings. Labial palpi with second joint obliquely ascending, as high as the top of the head, clothed above and below with fine hairs, laterally compressed; third joint horizontally porrected, not more than one-third the length of the second, small, pointed, with closely appressed scales; forehead with a horny ridge between the antennæ; these in ♀ simple, laminated, subserrated towards the apex; the basal joint long and swollen; tongue present, but not large; maxillary palpi invisible; on the under side the cell in the fore wing is clothed with fine hairs; abdomen robust, with ovipositor exerted. Neuration: Fore wing, first median branch at one-fifth before the end of the median, which is curved upwards towards the end of the cell; second median branch a little before the end; third and lower radial from the end, which is very acute; disco-cellular strongly incurved basewards; upper radial from its upper end; third, fourth, and fifth subcostal branches on one stem, the fifth leaving soon after its rise and curving into the hind margin, third out of fourth shortly to the costa, fourth running into costa just before the apex. Hind wing with the costal and subcostal approximating in the centre, and united there by a short oblique transverse vein: costal with two branches; subcostal single; median branches and disco-cellular as in fore wing.

This genus agrees in many points with Walker's genus *Macna*, the only species of which, however, comes from Singapore. In neuration it accords entirely with the genus *Tamyra*, H.-S., to which, among others, *Lametia*

ignitalis, Wlk., from Ega, *Hypena abrasalis*, Wlk., from Mexico, and *Hypena illapsalis*, Wlk., from Pará, belong; but the palpi are much shorter and simpler, and the colouring and markings wholly different.

14. *Paramacna arnea*.

Phalæna-Geometra arnea, Cram., Pap. Exot., i., p. 59, pl. 36, fig. g.

Fore wing pale green, with the costa broadly dull purplish brown, and a blotch of the same colour occupying the costal half of the central area to below the median vein; two obscure, brown, transverse lines, also extending the same distance below the median vein, the first before the middle at about one-fourth of the costa, the second starting from the middle of the costa, and running outwardly in a series of curves, concave outwardly between each nervure, showing more plainly in its lower part, where it traverses a pale ochreous blotch which lies obliquely below the end of the cell, and is bounded by a diffuse, curved, brown shade; reniform stigma distinct, brown; a brownish shade along the inner margin in the centre; fringe greenish. Hind wing and fringes silky ochreous, with a narrow brownish shading before the fringes. Head, thorax, and palpi pale greenish; terminal joint of palpi brownish; abdomen ochreous. Under side glossy ochreous, the darker tints of the fore wing showing through; a fringe of long silky hairs along the median vein of the fore wing. Expanse of wings, 36 mm.

One ♀. Faró, April 10th, 1874.

In a note to the figure of *Botys* (?) *linalis*, Felder, its close affinity to *Phalæna arnea*, Cram., is mentioned, and the remark added that perhaps it was really a specimen of that insect, of which the original green colouring had faded, as a result of damp. Felder's example was, like the present, from the Amazons. It is possible that in some cases the violet-brown tinge overpowers the green. At any rate, if the two are separate species, they are very closely related; but we must wait for a larger number of specimens before a really satisfactory conclusion can be arrived at.

AZAMORIDÆ.

Under this family I include all the genera, the species of which are characterised by a peculiar, membranous, scale-covered pouch, which occurs near the base of the

fore wings of the ♂. *Azamora* was Walker's earliest name for any of these insects.

15. *Azamora penicillana*.

Torda penicillana, Wlk., Cat. Lep. Het. B. M., xxviii., p. 437.

One ♀. Boâ Vista, R. Jutahi, Feb. 1st, 1875.

Closely related to *Amblyura corusca*, Ld., which, according to that author, belongs to the *Pyralidina*, but placed by Walker, along with several other abnormal genera, among the *Tortricina*. This latter position is clearly wrong; and when we consider that the various species characterised by the costal pouch possess all the different forms of labial palpi occurring among the Deltoids, we shall not, I think, be very far wrong in locating them here, in close connection with the genus *Tamyra*, H.-S.

HERMINIADÆ.

16. *Bocana pharusalis*.

Bocana pharusalis, Wlk., Cat. Lep. Het. B. M., xvi., p. 185, ♂ ♀.

B. orionalis, Wlk., ib., p. 186, ♀.

One ♀ at light. Marapatá, Rio Negro, Dec. 30th, 1874.

The fawn-coloured fore wing has two indistinctly-marked sinuous darker lines, one before, the other beyond the middle; both stigmata are represented by a small round silvery-grey spot, which in the specimens of *B. pharusalis* in the British Museum Collection are not visible. Walker gives 16 lines as the expanse of *B. pharusalis* and 17 of *B. orionalis*; the present specimen, however, measures only 14 lines, *i. e.*, about 30 mm.

17. *Bleptina albidiscalis*, n. s.

Fore wings deep fuscous, with two pale dark-edged sinuous transverse lines, each slightly bent just beneath the costa; the first close to the base, the second beyond the middle; reniform stigma linear, white; submarginal line scarcely visible. Hind wing deep fuscous, with one pale straight line; fringes concolorous. Head, thorax, and abdomen deep fuscous. Palpi with second joint long, curved; the third half as long as the second, securiform, with a minute acute apex, bright orange on the sides, especially externally,

fringed above and below with fuscous. Under side dull fuscous; fore wing with white central spot, and the second and submarginal lines showing whitish, especially near the costa; hind wings with a single pale line. Expanse of wings, 39 mm.

One ♀ at light. Tabatinga, Nov. 29th, 1874.

Akin to *Bleptina pentheusalis*, Wlk., xvi., 128, from Venezuela.

18. *Bleptina hirtipalpis*.

Bleptina hirtipalpis, Wlk., Cat. Lep. Het. B. M., xvi., p. 242.

One ♂. R. Jamunda, April 12th, 1874; at light.

Walker's type is from Venezuela.

19. *Bleptina prunescens*, n. s.

Fore wings with a dull purple flush; with a curved brownish line near the base, and another beyond the middle; the latter preceded by a broadish brown-black shade, with which it coalesces on the inner margin; another still broader brown-black fascia comes before the submarginal line, which is indicated only by white points on the nervules; the reniform stigma consists of two white dots, one under the other, lying in the dark central shade; marginal lunules black, fringe purplish. Hind wings with the same series of markings as the fore wings, but with the basal half wholly dark. Head, thorax, and abdomen purplish fuscous. Under side ochreous-grey; each wing with a black central dot and two dark bands. Expanse of wings, 32 mm.

One ♀ at light. Jutahy, Jan. 31st, 1875.

Akin to *Bleptina* (*Bocana*) *hypenalis*, Wlk., from Ceylon, and *Bleptina* (*Bocana*) *incongruens*, Butler, from Japan; but the apex of the fore wings is more rounded than in those species; the second line is not denticulated, but simply curved, and the reniform stigma consists of two dots instead of a solid white spot.

20. *Bleptina olivescens*, n. s.

Fore wings dull olive, with deep purple lines; the first curved and sinuous before the middle, with a deep indentation basewards between the subcostal and median veins; the second sinuous and dentate beyond the middle; an indistinct central shade between them, nearer the second, and passing just outside the reniform stigma, which is represented by a small bluish-white dot; sub-

marginal shade sinuous, distinct only near the costa; a marginal row of minute dark dots. Hind wings rather browner, with the markings of the fore wings repeated; fringes of both wings unicolorous. Head, thorax, and abdomen cinereous; palpi paler, fuscous, finely mottled with ochreous. Under side dull brownish grey, with the two outer lines alone showing darker, and a dark central spot in the hind wing. Expanse of wings, 30 mm.

Two specimens only, both females; one from Trompetas, Feb. 28th, 1875; the other from Guará, R. Solimoes, Nov. 22nd, 1874.

21. *Bertula biciliata*, n. s.

Fore wings dull fuscous, with traces of two sinuous dark lines, one before, the other beyond the middle, and a darker central shade between them; also of a blackish orbicular and reniform stigma, and of a submarginal line, beyond which the exterior margin of the wing seems to have been paler. Hind wings like the fore wings. The example is too much worn to admit of any exact description, as far as its markings are concerned; but the last joint of the palpi unfolds like that of *B. Talausalis*, from Venezuela, into a large fan-like tuft of hairs. The species, however, may best be distinguished by the peculiar antennæ: these, instead of being, as in *B. Talausalis*, armed with long thin pectinations, are thickly bipectinated, each pectination resembling a short claw, and bearing at its apex a fine hair of the same length as the claw itself; the stem of the antennæ is finely serrated above between the base of the pectinations. Expanse of wings, 42 mm.

One ♂. Gaviao, Nov. 10th, 1874; at light.

The constitution of the terminal joint of the palpi in the ♂ of this genus is very singular. It consists of a piece of thin membranous tissue, bearing fine scales on its outer surface, but with its inner surface clothed with long silky ochreous hairs, which can be expanded so as to form a large fan-like tuft.

EREBOTHRIX, n. g.

Fore wing short and broad; costa gradually curved, slightly hollowed beyond the middle; hind margin nearly straight; inner margin curved at the base. Hind wing rounded, with the anal angle somewhat produced, and a broad flap along the inner margin clothed with bristly hairs. Palpi moderately hairy, curved upwards, and reaching only a little above the head; third joint

only half as long as the second; antennæ with basal joint swollen, the first third stout and swollen, apparently without ciliation, then bent inwards, with a hollow on the outer side, in which are some strong cilia; the remaining two-thirds ciliated; legs strong; fore legs more densely scaled than the rest, but without a tuft. Neuration: Fore wing, first subcostal branch from about the middle, second one-fifth before the end, curved towards the stem of the third and fourth, which separate shortly before the apex; their stem along with the fifth subcostal from the upper angle of the cell; radials from the disco-cellular; first median branch at two-thirds; second and third from the lower end of the cell. Hind wing with the costal and subcostal united for a space, the subcostal with two branches; first median branch at one-third; second and third stalked from the lower angle of cell; radial from the disco-cellular, a little above the angle.

22. *Erebothrix semiusta*, n. s.

Fore wing pale ochreous dusted with brown, with no visible markings, except a coal-black, pear-shaped mark on the inner margin near the base, reaching half-way across the wing. Hind wing like the fore wing in colour, but with the whole inner half coal-black, and the anal flap beset with black bristly hairs; under side the same; fore legs, antennæ, and palpi tinged with brownish. Expanse of wings, 25 mm.

One ♂, from Lago Cerrada, R. Jurua, Oct. 30th, 1874. This specimen is much damaged, and the markings have evidently been worn away.

PHYSULODES, n. g.

Fore wing costa very slightly convex, the apex scarcely pointed; hind margin oblique and rounded at the anal angle. Hind wing rounded; palpi long, curved, ascending; the second joint well clothed with scales, the third thinly scaled, slender, as long as the second, and curved back over the head; antennæ finely pubescent beneath, with two longer cilia on each segment, and with a small tuft of hair-like scales at two-thirds, below which the stem is slightly hollowed out; fore tibiæ with an expansible tuft of hairs. Neuration: Fore wing, first subcostal from about the middle of the cell; second, third, and fourth on a common stem from about one-fifth before the end, the second soon separating, the third and fourth parting half-way to apex; the fifth and upper radial from the end of the cell: first median branch from the middle; second and

third stalked, from the end ; radial from the disco-cellular, a little distance above the end.

Allied to *Physula*, Gn., but distinguished by the tufted antennæ of the ♂, and the peculiar clothing of the under side of the fore wings.

23. *Physulodes eupithecialis*.

Physula eupithecialis, Gn., Delt. & Pyr., 87, 116 ;
Wlk., Cat. Lep. Het. B. M., xvi., p. 141.

Fore wing sandy ochreous dusted with brown, especially along the costa and towards the hind margin ; two fine dark but indistinct transverse lines, one before and one beyond the middle, the latter wavy ; orbicular stigma hardly visible ; reniform consisting of two spots ; a submarginal row of distinct black spots ; fringes concolorous, with a line of darker scales down their middle. Hind wing more thickly dusted with darker, with an indistinct interrupted darker central band, and a paler one towards the hind margin ; the row of submarginal dots as in the fore wing. Under side straw-colour dusted with brownish ; the submarginal row of dark spots very plain ; fore wing with the disc and the base of the costa more or less overrun with very fine powdery-looking hairs. Head, palpi, thorax, and abdomen ochreous, dotted with brown atoms.

One ♂. Pupunha, R. Jurua, Nov. 1st, 1874.

There is no example of this insect in the British Museum collection, but it agrees well with Guenée's description. Differing as it does in the structure of the ♂ antennæ from the other two species of *Physula*, Gn., I have placed it in a genus by itself.

24. *Megatomis bidentalis*, n. s.

Fore wing fuscous, with a purplish reflection in certain lights, dusted all over with ochreous atoms ; the lines and stigmata also ochreous ; first line near the base indistinct, curved, edged with darker ; second line beyond the middle straight, oblique, suddenly reflexed just before reaching the costa ; it is edged internally with dark ; submarginal line indistinct, ochreous, zigzag, forming two prominent angulations ; orbicular stigma small, oblique, reniform stigma lunular, both with ochreous centres and dark margins ; marginal lunules black ; fringe fuscous, with a narrow ochreous basal line. Hind wing fuscous, dusted with ochreous over the inner half ; the costal half plain ; the second straight line and the

zigzag submarginal line of the fore wings are reproduced in the hind wings. Head, thorax, and abdomen dull fuscous; antennæ and palpi rather paler towards their apex. Expanse of wings, 30 mm.

One ♂. Sapucaia Croca, R. Madeira, May 15th, 1874.

The under side is ochreous dusted with fuscous; fore wing with the inner margin broadly whitish; hind wing showing traces of two bands; both wings with distinct black central spots.

In the single specimen captured the right hind wing shows the markings of the fore wing both on the upper and under sides, while the left seems to be without them.

25. *Hipoëpa raptatalis*.

Bertula raptatalis, Wlk., Cat. Lep. Het. B. M., xvi., p. 164.

Gonitis pusilla, Butler, Ann. N. H., 1875, pt. 2, p. 405.

Two females, taken at light; one at Curimabá, R. Jurua, Dec. 30th, 1874; the other on the R. Javary, Dec. 3rd.

The third joint of the palpi of the ♂ is more pilose than in ♀, fringed to the end, and the tuft of long hairs is found only in the fore legs of the ♂. Mr. Butler's examples of *G. pusilla* were from Natal.

26. *Chabora nealcesalis*.

Megatomis (?) *nealcesalis*, Wlk., Cat. Lep. Het. B. M., xix., p. 883, ♀.

Chabora tauralis, Wlk., ib., xxxiv., p. 1185, ♂.

The indentation, which Walker mentions near the anal angle in the fore wing of the ♂, occurs only in that sex; it is repeated and exaggerated in the hind wings, of which the apex is also strongly rounded, while in the ♀, on the contrary, the apex is produced into a point. Fore wing cinereous, tinged with pink; markings fawn-coloured, deepening into brown; costa with six white dots; a pale brown basal line from the first, slightly angulated in the middle externally; from the second dot, in the ♂, there starts an oblique line, internally broadly brown-shaded and externally pale-margined, which runs to above the anal angle, where it turns and runs straight to the inner margin; contiguous to the centre of the oblique upper arm stands a triangular dark brown spot. In the ♀ this second line runs nearly straight across the wing to the inner

margin some distance before the anal angle, and is followed along its lower half by a pinkish grey space. From the third white costal dot a curved brown externally pale-edged line runs to the middle of the wing towards the angle of the second line, before which it vanishes. Submarginal from the fifth white dot, very indistinct. In the ♀ the submarginal line is conspicuously distinct, denticulated, internally pale-edged, before which it is preceded by a broadish brown shade. In both sexes is a marginal line of lunules; fringes in ♂ grey, in ♀ whitish, with a double basal dark line. Hind wings in the ♂ whitish, pellucid, tinged with fuscous; dark fuscous along the hind margin; fringes whitish mixed with grey; in the ♀ entirely dark fuscous, darker still towards the hind margin; fringes mottled dark and light. Under side cinereous freckled with darker, with the apex of the fore wing diffusely, and all the margins of the hind wing concisely, bright orange-brown or brick-red; the lines in the ♀ very distinct. Head, face, and palpi rufous; the tips of the latter brown; thorax and abdomen grey and fuscous mixed; the last four or five segments yellowish above, each segment ringed with whitish.

Two males, Serta, April 21st, 1874, and one female, Fazinda, near the rapids of the R. Tapajos, March 14th, 1874.

Allied to *Sarmatia divisalis*, Wlk., xxxiv., p. 1131, from S. Africa (of which *Bertula subcupralis*, Wlk., xxxiv., p. 1167, from Natal, is a synonym), and also to *Rhæsena transcissa*, Wlk., xxxv., p. 1974, from Australia. I may here mention that, as the type of *Sarmatia* is *S. interitalis*, Wlk., a totally distinct insect from *S. divisalis*, and as further *B. subcupralis* is not a *Bertula*, the generic name *Rhæsena* must be adopted for the species, and the synonymy will be as follows:—

Rhæsena divisalis.

Sarmatia divisalis, Wlk., xxxiv., 1131.

Bertula subcupralis, Wlk., ib., 1167.

PARACHABORA, n. g.

Fore wing with a nearly straight costa, slightly concave along the centre; hind margin obliquely curved; hind wing rounded. Scaling fine and iridescent. Head and thorax more roughly and coarsely scaled; palpi with second joint long, erect, laterally compressed, rather broad; terminal joint short, blunt; tongue strongly developed; eyes large and prominent. Antennæ in ♂ finely pubescent beneath, each joint with two longer cilia; abdo-

men in ♂ rather long, with anal tuft. Neuration: Fore wing, cell two-thirds the length of the wing; first subcostal at two-thirds of the cell, the next three on one stem starting from the upper angle of the cell, the second and third running short to the costa out of the fourth; the fifth, much curved at its origin, also from upper angle of the cell, upper radial from below the end; first median branch at two-thirds; second, third, and lower radial all close together, one above the other, at the lower angle. Hind wing: costal and subcostal united at the base, the costal then straight to the apex; the subcostal with two branches; first median branch only a short way before the end of cell; second and third on a short common stem from the lower angle; radial curved from the same point; disco-cellular invisible.

The genus has affinities with *Chabora*, Wlk., also from S. America, and with *Rhæsena divisalis*, Wlk., from S. Africa, and *R. transcissa*, Wlk., from Australia; while *Plusiodonta anartoides*, Wlk., xxxiii., p. 843, is still more closely related, but differs by its much longer palpi.

27. *Parachabora abydas*.

Noctua abydas, H.-S., Samml. Auss. Eur. Schm., ii., fig. 565.

Omiodes ? tortola, Feld., Reise Nov., pl. 120, fig. 9.

One ♂, R. Solimoes, near Santa Cruz, Dec. 9th, 1874.

Herrich-Schäffer's type, evidently a ♀, was from Venezuela; Felder's, a ♂, from French Guiana. I think there can be no doubt that both figures are intended to depict the same insect. In the absence of any previous description I append the following:—

Fore wing a mixture of pinkish and tawny, tinged in certain lights with violet and bronzy, especially towards the hind margin; all the markings very indistinct; the first line runs obliquely from the costa to the middle, then straight to the inner margin, the basal area enclosed being browner than the central, which is more pink, but with the two stigmata indistinctly tawny brown; second line fine, dark, a little denticulated and incurved below the reniform stigma; hind margin burnished, with the submarginal line faintly perceptible. Hind wing pearly white, with the veins towards the hind margin, and the hind margin itself broadly, fuscous, the latter fading off towards the anal angle. Fringes of fore wing dark bronzy; of the hind wing white. Palpi pinkish grey, the third joint darker; head and thorax and the anal tuft in the ♂ orange-tawny; abdomen greyish ochreous, paler beneath. Under side of

fore wing dull fuscous; of hind wing whitish; both without markings. Expanse of wings, 27 mm.

28. *Egnasia dorcanderalis*.

Megatomis dorcanderalis, Wlk., Cat. Lep. Het. B. M., xix., 883.

One ♀. R. Purus, Sept. 30th, 1874.

Walker's type of the species is a ♂, with the antennæ pectinated; the ♀ has them crenulated.

29. *Egnasia* (?) *albipunctata*, n. s.

Fore wing pinky brown, with faint traces of a curved dark brown line before the middle, immediately followed by a small white orbicular stigma; a much serrated blackish line starts from the middle of the costa, is much bent outwards, and forms three sides of a square, enclosing the reniform stigma, which is large yellowish, and finally terminates in the middle of the inner margin; the space between this elbow and the reniform stigma filled up with dark brown; submarginal line hardly perceptible; a row of black dots before the fringes. Hind wing with traces of two darker bands, and the row of submarginal spots. Under side dull pinkish fuscous; without markings. Abdomen and legs concolorous. Head, &c., absent. Expanse of wings, 20 mm.

One ♀. R. Manhes, April 29th, 1874.

In the absence of the head, with all its organs, this insect can only provisionally be referred to *Egnasia*.

RHODODACTYLA, n. g.

Fore wings falcate, deeply concave below the apex, and with a prominent projection above the anal angle, in which the third median branch terminates. Hind wings square-cut with an angulation in the hind margin towards the inner angle. Forehead with projecting tufts of scales; antennæ minutely ciliated beneath; palpi drooping; second joint densely fringed and concealing the third. Femora and tibiæ of legs pilose. Neuration: Fore wing with a strongly-marked fold between the submedian and first median branch; second and third median branches and lower radial from the lower end of the disco-cellular; upper radial from the top angle of the cell; second, third, and fourth subcostal branches stalked, the second, very short, out of the third just before the apex. Hind wing: first median branch at two-thirds; second

and third stalked from the lower end of the cell; radial from below the middle of the disco-cellular; cell divided longitudinally by a fold, which also reaches beyond the disco-cellular towards the hind margin; subcostal branches from the upper end of the disco-cellular; costal free.

30. *Rhododactyla elicrina*.

Colobochyla (?) *elicrina*, Feld., Reise Nov., pl. 120, fig. 17.

(?) *Achantodes semirosea*, H.-S., Samml. Auss. Eur. Schm., p. 68, fig. 454.

Fore wing pinkish, tinged with ochreous and grey; without distinct markings; the stigmata paler, roundish; the reniform large; an obscure dentate pinkish transverse line beyond the middle; five black submarginal spots, three in the upper concavity, two above the anal angle. Hind wing yellowish ochreous, darker towards the hind margin. Head, thorax, and palpi pinkish brown. Under side ochreous; the costa of both wings dusted with grey. Expanse of wings, 26 mm.

One ♂. Itatoro, R. Madeira, June 2nd, 1874.

The figure of Felder, which most certainly represents the present species, gives another transverse line before the middle, which, owing to its condition, cannot be made out in the specimen from Itatoro. Herrich-Schäffer's figure *may* be intended to depict a pale unmarked example, but more probably represents another species of the same genus. The latter author proposes to refer the genus to the *Notodontidæ*, as Mr. Butler has, in fact, referred the type-species, *Achantodes cerusicosta*, Gn., from Venezuela. The locality for *A. semirosea*, H.-S., was not known. Felder's *C. elicrina* was, like the present example, from the Amazons.

DYSGLYPTOGONA, n. g.

Fore wing with the costa abruptly curved at the extreme base, then straight, and only convex just before the apex, which is slightly produced and acute; hind margin concave below the apex and elbowed in the middle, thence running obliquely to the anal angle, which is itself bluntly elbowed. Hind wing with the costa strongly arched at the base, and very convex towards the apex, which is decidedly pointed; the hind margin, *in the* ♀, resembling that of the fore wing, *viz.*, falcate on the upper half and elbowed

in the middle; in the ♂ sharply cut off straight from the apex to the anal angle. Palpi of ♂ very hairy; second joint long, obliquely ascending; third short, consisting of a double tuft, the base of which is hidden among the projecting scales of the second; tongue present; palpi of the ♀ shaped like the ♂, but with appressed scales, not hairy themselves, but concealed by the hairiness round them. Antennæ with two fine lateral bristles on each joint, densely and shortly pubescent beneath throughout; in the ♂ thickened out and flattened at the base. Head and face rough-haired; patagia in the ♂ remarkably long, upcurved and crested, reaching half-way down the abdomen; in the ♀ much less marked. Legs long and stout, with long spurs; all the femora hairy, especially in the ♂. Neuration: Fore wing, costal into the costa at quite three-quarters from the base; first subcostal branch at two-thirds of the cell, about the middle of the wing at about one-sixth before the end of the cell two branches rise from the same point, the upper one curving upwards, the lower running close alongside of, and scarcely distinguishable from, the subcostal itself to the end, then curving upwards, and uniting with the upper; from this point of conjunction the fifth subcostal branch runs straight to the hind margin some little way below the apex, and the fourth curves into the apex itself, emitting at one-third of its course the second, and the third just before its termination in the apex. Disco-cellular inwardly curved, scarcely angulated, with a strong recurrent vein, the cell itself long, extending nearly two-thirds of the wing; upper radial from a little below the top angle, lower from a little above the bottom angle of the cell; first median branch at two-thirds of the cell; second and third from the lower end; interno-median fold strongly expressed, and curved towards its base. Hind wing with the costal and subcostal anastomosing for a very short distance near the base, the costal thence running sinuously to the apex; the subcostal with two long branches; first median branch arising quite close to the base of the median; second and third short-stalked from the lower end of the cell; cell short and broad, with a well-marked free recurrent vein from the radial. On the under side the base of the costa and the basal portions of all the nervures beset with hairs, more especially in the ♀.

31. *Dysglyptogona dissimilis*, n. s.

Fore wing ochreous, dusted all over with black-tipped scales; with three transverse brown lines, which are all more undulating in the ♂ than in the ♀; the first, near the base, forms a subcostal angulation pointing outwards, and then runs sinuously to the

inner margin, more or less parallel to the hind margin in the ♀; after the subcostal angulation it runs straight; second line central, with a subcostal angulation similar to the first, and then running irregularly sinuous, more or less parallel to the first, but diverging from it on the inner margin; in the ♀ this line is nearly straight throughout, with a slight subcostal angulation *pointing inwards*; third line from the costa before the apex to the inner margin before the anal angle simply sinuous in the ♂, with a paler external edging; in the ♀ nearly straight; there are traces, in both sexes, of a zigzag submarginal line, and a submarginal row of black spots; in the ♂ the lower half of the second line is followed and that of the third line both preceded and followed by brown shading; a white-centred, dark-outlined spot obliquely below the subcostal angulation of the first and second lines, representing the two stigmata. Hind wing ochreous, dusted, like the fore wing, with dark-tipped scales; with a central, slightly curved brown line (which in the ♀ is geminated), a dark spot between it and the base; in the ♂ the apex is brownish, and in the ♀ the row of submarginal black dots is visible, but not in the ♂; abdomen dull ochreous mixed with grey; head, face, palpi, and thorax dull ochreous in the ♀, bright ochreous in the ♂. Under side dull ochreous, dusted with darker; with all the markings more or less showing through. Expanse of wings, 45 mm.

One ♀. R. Jurua, Oct. 27th, 1874; one ♂ from Juruapuca, R. Jurua, Nov. 11th, 1874.

The ♂ specimen is in better condition than the ♀, though both are without fringes. Notwithstanding the different configuration of the hind wings, and the dissimilarity in the markings of the fore wings of the two sexes, the peculiar identical neuration shows the two examples to be sexes of one and the same species. *Ensipia lamusalis*, Wlk., xvi, p. 208, is evidently related to it.

EREBOSTROTA, n. g.

Fore wing with straight costa, becoming convex before the apex, which is blunt; hind margin curved, slightly scalloped, and faintly elbowed in the centre. Hind wing with costa straight; hind margin with a rather prominent angular projection below the costa, beneath which it is strongly indented, and then runs straight to the anal angle. Tongue present, patagia rather long, suberect (palpi and antennæ, as well as the abdomen, gone); legs with the tibiæ and femora densely hairy. Neuration: Fore wing, cell broad; disco-cellular angulated; the upper arm only half the

length of the lower; first and second subcostal branches parallel, starting at about two-thirds and four-fifths respectively; third, fourth, and fifth on a short stem from the top angle of the cell, third out of the fourth shortly before the apex; upper radial from the upper angle of the cell; first median branch at two-thirds, strongly curved at its origin; second from lower end of cell, which is blunt; third from a little above, and lower radial from a little above this last. Hind wing: cell short and broad; costal and subcostal anastomosing near to base; costal thence straight, subcostal with two long branches from the upper end of cell; first median branch from near the base of the median; second from lower end of the cell; third and radial from a point a little above the second.

32. *Erebostrata albocincta*, n. s.

Fore wing ochreous, tinged slightly with fulvous, and overrun with fine sinuous fleckings of dark scales; the costal margin broadly black-brown, with a slight purplish tinge, and the nervures themselves showing blacker; the costa itself with ochreous patches and dots. First line very faint, brownish, with a white dot on the median and submedian nervures; second line beyond the centre angulated but indistinct, its course denoted by three whitish dots on the submedian and two lower median branches respectively, and by a broad oblique white dash above towards the apex; centre of the hind margin rather darker; a distinct black dot in the centre of the wing. Hind wing ochreous tinged with fulvous, and speckled with darker, with a minute dark dot in the middle; fringes ochreous only slightly chequered with darker. Under side: fore wing dull greyish ochreous, thickly dusted with darker, and with traces of two darker bands and two blackish spots towards the apex; the central dot of the upper side and the three angles of the cell also black. Hind wing pale straw-colour with dark frecklings, confined to the costa and hind margin; a black central spot; an indistinct central band, and a darker, more distinct, submarginal one; fringes ochreous, with strong black dashes at the ends of the nervures. Face and palpi ochreous; collar dark brown; patagia ochreous, with greenish-grey bases; abdomen ochreous; legs bright ochreous, with femora and tibiae densely hairy. Expanse of wings, 44 mm.

One ♂. Laranjal, R. Manhes, May 3rd, 1874.

TRIOMMATODES, n. g.

Fore wing broad; costa straight; hind margin slightly elbowed in the middle; hind wing rounded, broad, with the anal angle

somewhat produced. Antennæ (of ♂) strongly pectinated, the pectinations themselves swollen towards their apex, and ending each in a fine bristle; all the pectinations so finely and closely ciliated as to appear almost membranous. Palpi laterally compressed, ascending, suboblique, twice as long as the head; third joint half the second, the tips of both blunt; tongue hairy; maxillary palpi invisible; forehead hairy; patagia well-developed, extending beyond the thorax; legs with the fore and middle femora (and probably the hind ones also) hairy.

33. *Triommatodes plumosa*, n. s.

Fore wing dull ochreous, with indications of three irregular curved transverse lines; the first near the base; the second before the middle, followed between the subcostal and median veins by a black patch; the third beyond the middle, preceded and followed below the costa by blackish shading, and followed only by a similar shading towards the anal angle. Hind wing with this dark blotch at the anal angle reproduced, and with two curved bands. Under side ochreous, with central dark dot. Head, face, and thorax ochreous; abdomen pale ochreous, with blackish anal tuft. Expanse of wings, 40 mm.

One ♂, from Gepatiny, R. Purus, Sept. 29th, 1874. The single specimen is in poor condition, and the markings can only be made out indistinctly.

ATOPOMORPHA, n. g.

Fore wing very long and narrow; costa at base nearly straight, with a shallow concavity in the middle, and very convex at the apex; hind margin very oblique, sinuous, the upper half convex, the lower concave; the anal angle somewhat square. Hind wing broad; the costa strong, arched at the base and sinuous, like the fore wing, but more exaggerated; hind margin with a prominent blunt projection occupying the upper two-thirds, then sinuous to the anal angle, which is rather prominent. Abdomen very long and thin; the head with its organs is damaged; hind tibiæ with two pairs of spurs, the inner of each three times as long as the outer. Neuration: Fore wing, cell reaching quite three-fifths of the wing, its basal half underneath beset with hairs; first median branch from the centre of the cell; the second, third, and lower radial from the lower end of the cell; the third slightly arched, the radial considerably; upper radial from below the upper angle of cell; first subcostal branch from the middle; second just before the end; third, fourth, and fifth stalked, the fifth soon leaving the

common stem, the third and fourth separating half-way. Hind wing: costal and subcostal uniting at a point close to the base, then diverging again; costal straight to the apex; subcostal with two branches; first median branch from before the centre; second and third from lower end of cell; disco-cellular very obscure; radial from its centre.

34. *Atopomorpha singularis*, n. s.

Fore wing pale ochreous, varied with grey, brown, and yellowish; a curved blackish line near the base more strongly marked on the inner margin; a sinuous oblique dark line beyond the middle, running nearly parallel to the hind margin, preceded by a broad brownish shade, and followed by a white line; all three more strongly marked on the inner margin; submarginal line narrow, whitish, sinuous, most distinct towards the costa, preceded and followed in its upper half by a brownish shade, preceded in its lower half by a sinuous, ochreous, curved blotch, and followed by a dark patch; a dark blotch at the apex, underneath which is a triangular ochreous-white spot; orbicular stigma yellowish, outlined with darker; reniform stigma hemispherical, with a darker centre. Hind wing grey-brown, darker throughout the basal half; the pale edging of the second line in the fore wing continued across the hind wing, but straight, not sinuous; hind margin dark fuscous towards the costa, towards the anal angle ochreous yellow mottled with darker, and with two dark brown patches. Fringes of both wings (apparently) ochreous mottled with darker; abdomen greyish ochreous, the segments darker. Under side whitish ochreous, dusted with yellowish; both wings with a dark central spot and fascia; the hind wing with a diffuse second fascia towards the hind margin, containing a darker blotch towards the anal angle; a series of marginal lunules before the base of the fringes more distinct than above. Expanse of wings, 30 mm.

One ♂, from Para, March 10th, 1875.

A very peculiar-looking insect, resembling in some respects a distorted *Macaria*; the junction of the costal and subcostal nervures of the hind wing near the base is likewise characteristic of the *Geometrina*; on the other hand, the presence of the two stigmata is more indicative of a Pseudo-deltoid. In the absence of all the mouth-parts, however, its proper position must be left undecided.

PTEROPRISTIDÆ.

I propose this family to include all the species in which the hind margin of the fore wing is fissured, that is to say, the three genera, *Tortricodes*, Gn., *Gaberasa*, Wlk., and *Pteroprista*, n. g.

35. *Tortricodes alucitalis*.

Tortricodes alucitalis, Gn., Delt. & Pyr., 73, 92; Wlk., Cat. Lep. Het. B. M., xvi., p. 131.

One ♂, from Teffé, Oct. 18th, 1874.

As Gueneé's single ♂ was in such bad condition that he was unable to give an exact description of it, I here append one, as well as a more detailed account of the structure and neuration of the genus (as derived from this species), which latter seems to me not quite correctly given by Guenée:—

Fore wing with costa straight for one-third, then excavated for another third, the cavity being filled up with a fringe of hairs, which projects a little beyond the costal outline; apical third strongly convex, almost elbowed, appearing, as Guenée expresses it, as if cut off with a pair of scissors; hind margin for one-third vertical, or even almost sloping outwards, then carved out, with a deep incision running inwards quite one-third towards the base, and curved upwards at its end, thus forming two lobes; the edges of the incision with fringes like the rest of the hind margin. Under side: Costa with a strong fold from the base fringed with long hairs, which extend also along the edge of the central concavity; the median vein is fringed with long hairs, which terminate in a raised funnel-shaped tuft before the upcurved end of the incision; hind wing rounded. Neuration: Fore wing with the costal nervure hidden under the fold, and forming beyond it the margin of the costal concavity; first subcostal branch starting half-way down the cell, just beneath the beginning of the costal cavity; second half-way between the first and the end of the cell; third, fourth, and fifth from a common stem just before the end; the fifth leaving very near the base of the stem; the fourth half-way towards the apex. Submedian running straight to the anal angle; interno-median fold strongly developed; first median branch at one-third before the end of the cell, strongly curved at its origin, and running into the top of the lower lobe; second just before the end, apparently running round the end of the incision, and terminating shortly on the inner margin of the front lobe; third median

branch and lower radial curved, apparently from the same point at the end of the median; disco-cellular absent; upper radial from the end of the subcostal nervure, which is slightly bent downwards and running much further than usual from the costa. Hind wing with the costal and subcostal nervures united for a short distance at the base; subcostal with two branches; median with three branches; no transverse vein; the first and third median branches starting together from where the lower end of the cell should be; the second out of the third. Palpi very long, recurved, the last joint expanding internally into a brush; tongue strongly developed; maxillary palpi not visible. Antennæ short but stout, slightly swollen near the middle, and with the first joint enlarged; each joint with two long sharp-pointed lateral bristles, and finely but shortly pubescent beneath. Fore leg with the tibiæ and upper part of the tarsi roughly clothed with long hairs.

The genus is distinguished from *Gaberasa*, Wlk., and *Pteroprista*, with which it agrees in the incision in the hind margin of the fore wings, by the excavated costa and tuft of scales. Guenée enumerates four species, viz., *pterophoralis*, *alucitalis*, *orneodalis*, and *sueralis*, which appear to represent different degrees of departure from typical wing-form. Thus *P. sueralis* has no distinct incision in the hind margin, but only a simple indentation, and the costal cavity small and filled up with a fringe of hairs just level with the costal outline. *Alucitalis* has the incision strongly-marked, but the costal cavity small, with a fringe projecting slightly beyond the costal outline. In *orneodalis* and *pterophoralis*, besides the deep incision in the hind margin, the costa is strongly concave from the base, and the crest of hairs in the centre assumes a much greater prominence. It is worthy of notice that all the examples at present known of the three genera, *Tortricodes*, Gn., *Gaberasa*, Wlk., and *Pteroprista* are males.

The British Museum Collection at present possesses no species of *Tortricodes*. But besides the single ♂ of *T. alucitalis* here mentioned from the Traill collection, there is a single ♂ of *T. orneodalis* in the Zeller collection. *T. pterophoralis* and *sueralis* are still unrepresented. The Zeller collection also contains two perfect males of Walker's *Gaberasa ambigualis*. I now give the description of *T. alucitalis*, Gn.:—

Fore wing dun-colour, with a slight purplish tinge; markings olive-fuscous; basal area pale, edged by an oblique line from the basal end of the costal cavity to the inner margin; this line is followed by a diffuse fuscous-olive shade; from the apical end of the costal concavity a sinuous, rather dentate, brown line runs just inside the end of the incision, while between the two lines is a slightly darker central shade; a dark spot of scales at the end of the incision; submarginal line curved, indistinct, but preceded by darker shading throughout; fringes concolorous, darker at their base. Hind wing dull fuscous, the margin faintly scalloped. Head, thorax, and abdomen all dun-colour. Under side paler, more ochreous, with greyish suffusion, the funnel of hairs somewhat ochraceous; hind wing dusted with dark grey, with a dark central spot and traces of three curved bands.

PTEROPRISTA, n. g.

Fore wing with costa straight; hind margin obtusely angulated in the middle, and with a slit below the angulation, running in towards the base of the wing for about one-fifth of its length, the edges fringed like the hind margin itself. Hind wing rounded. Neuration: first and second subcostal branches running parallel to each other from about the centre of the subcostal; third, fourth, and fifth from the same stem, rising just before the end of the cell, the third out of the fourth half-way before the apex. Submedian to anal angle; interno-median fold strongly developed; first median branch at one-third before the end of the cell, running into the hind lobe; second from just before the end of the cell, curving upwards into the front lobe; third and lower radial from the same point at the end of the cell; upper radial from below the upper angle. Hind wing: Costal and subcostal united at the base for a short distance; subcostal with two branches, median with three; the second and third on the same stem. Palpi laterally compressed, long, recurved over the head, the third joint twice the length of the second, bluntly pointed; roughly scaled externally, internally clothed with long pale hairs, as in *T. alucitalis* and the genus *Berbula*; tongue well-developed; maxillary palpi absent. Antennæ thin, the joints angulated and finely pubescent, but without the two longer bristles that occur in *Tortricodes*. Legs with the base of all the femora hairy.

Akin to *Gaberasa*, Wlk., and *Tortricodes*, Gn., with an incision in the hind margin of the fore wings; differing, like *Gaberasa*, from *Tortricodes* by the absence of any costal concavity.

36. *Pteropristera metallica*, n. s.

Fore wing pale liver-colour, with the markings darker; the tips of all the scales metallic; a faint brown sinuous line before the middle, and a straight oblique one beyond the middle, the latter preceded by diffuse brown shading, and followed by a more distinct broadish bronzy-purple shade; subterminal line slightly curved, brown, indistinct; fringe darker, with some black spots before their base. Hind wing without markings, except a trace of a curved submarginal line, forming a bronzy purplish patch at the anal angle; fringe darker with paler bases, preceded by darker dashes. Head, thorax, and abdomen dark fuscous; inside of palpi and anal tuft ochreous. Under side paler, somewhat ochreous, but withal metallic; fore wing without markings. Hind wing speckled with dark grey, with faint indications of a submarginal band, and a more conspicuous series of dark lunules before the fringe. Expanse of wings, 27 mm.

One ♂. R. Mamellos, R. Madeira, Jan. 6th, 1874.

Distinguished at once from *Gaberasa* and *Tortricodes* by the metallic scaling and pointed apex of the fore wing.

PYRALIDINA.

CHRYSAUGIDÆ.

In this family I also include the genera of Lederer's other two families, *Homalochroidæ* and *Semniadæ*, all the species of which are marked by the abnormal position of the first subcostal branch of the fore wings. It seems absurd to consider slight deviations in the direction of a single nervure adequate grounds for constituting separate families. Walker's genera *Dastira*, *Nachaba*, and *Arouva* must also be included: all the species are characterised by the very much elongated basal joint of the antennæ.

37. *Arouva mirificana*.

Arouva mirificana, Wlk., Cat. Lep. Het. B. M., xxx., p. 963.

Semnia egaecalis, Feld., Reise Nov., pl. 134, fig. 19.

One ♀. R. Madeira, June 3rd, 1874.

Walker's type, a ♂, from Ega, is from Mr. Bates' collection. Felder's example, from the Amazons, was likewise from the same collection. The antennæ of the

♂ are without the subapical tuft of scales which characterises the genus *Semnia*, to which Felder, judging from the superficial resemblance of the ♀, referred it.

There is a very peculiar characteristic in the ♂ which Walker seems to have quite overlooked. This is a raised lappet of scales running from the base of the fore wing along the subcostal nervure on the upper side.

Before proceeding to describe the next species I propose to discuss the constitution of Walker's genus *Locastra*. This genus comprises four species, described from males alone, and is characterised by similar antennal processes to those which occur in that sex throughout the *Epipaschiadæ*, of which family *Locastra* must certainly form a genus.

In his typical species *maimonalis*, Walker describes the palpi as "short, stout, ascending, closely applied to the head, densely clothed with squamose hairs"; and the legs as "stout, densely pilose." Now this description applies to none of the remaining three species: his second species, *phereciusalis*, is identical with *Stericta divitalis* (*Glossina divitalis*, Gn.), and his fourth, *haraldusalis*, which I have not seen, is most probably another *Stericta*; certainly not a true *Locastra*: the third, *sagarisalis*, in which he describes the costa of the fore wing as "notched and thickened at a little beyond the middle," evidently belongs to a separate genus of the same family, to which also must be referred *Stericta* (*Glossina*) *achatina*, Butler, from Japan. Of Walker's original four species of *Locastra*, there will therefore remain only the first, *maimonalis*; and even in this case the specific name must give place to another of Walker's own, for *Eurois* (?) *crassipennis*, Wlk., Cat. Lep. Het. B. M., xi., 558, is a ♀ of the same species.

EPIPASCHIADÆ.

38. *Locastra pilosa*, n. s.

Fore wings pale ochreous-yellow, with brown lines and markings; a small brown spot close to the base on the subcostal; before the middle a zigzag brown line approaching the base on the inner margin, followed about the centre by a dark dot, which stands in a small brown blotch; second line denticulated, starts from the middle of the costa, making a small sharp angle basewards, then running outwards for a short distance, and afterwards parallel to

the hind margin, followed, after a narrow ochreous interval, by a broad indistinctly bordered brownish band; a row of dark brown spots along the hind margin, and four dark costal streaks before the apex. Hind wing more fuscous, without markings. Head, thorax, and legs all ochreous; abdomen the same, but dusted with brownish; palpi, antennal processes, and an erect tuft at the back of the thorax brighter ochreous, tinged with brown towards their extremities. Under side pale ochreous, dusted with fuscous, especially in the fore wing, which shows traces of the submarginal dark band near the costa; hind wing with distinct black central spot, and faint traces of two dark slender curved bands. Fringes probably ochreous, but the specimen is much worn along the margins of the wings. Expanse of wings, 28 mm.

One ♂. R. Javary, Oct. 5th, 1874.

Though considerably smaller than *Locastra crassipennis*, Wlk. (*maimonalis*, Wlk.), the peculiar pilosity of the legs and thorax, and the shape of the palpi, are enough to prove it congeneric.

39. *Locastra funerea*, n. s.

Fore wings ochreous, more or less suffused with fuscous, with three denticulate, transverse, dark lines, the first before the middle, the second beyond; these two dark edged with lighter; the third submarginal pale; a distinct dark spot at the end of the cell, and an obscure smaller one between it and the base; a row of strongly-defined black lunules along the hind margin; hind wing dark fuscous, without markings. Head, thorax, and palpi ochreous; abdomen fuscous. Under side dull ochreous, more or less mixed with fuscous, with a central dark spot on both wings, and on the hind wing faint traces of a central dark band and broader submarginal one. Expanse of wings, 28 mm.

Three specimens. One ♀, R. Javary, Dec. 7th, 1874; one ♀, R. Jutahi, above Curnem, Jan. 29th; and one ♂ from Santarem, R. Jutahi, Feb. 1st, 1875.

All three examples are in bad condition, neither having an antenna left, and, as might be expected, the antennal processes in the ♂ are gone. The amount of the fuscous suffusion seems to vary much: one ♀ has the whole wing dark; the other pair have only irregular isolated patches; the fringes and colouring of the head, palpi, and thorax vary according to the suffusion of the wings; thus giving the insects a very dissimilar appearance: the hind wing, however, is dark in all.

40. *Homura nocturnal*is.

*Homura nocturnal*is, Ld., W. E. M., vii., p. 339, pl. 7, fig. 7.

One ♀, from the south bank of R. Negro, June 16th, 1874.

Lederer's type was a ♂; the ♀ is without any of the characteristics of that sex.*

41. *Deuterollyta consp*icualis.

*Deuterollyta consp*icualis, Ld., W. E. M., vii., p. 359, pl. 7, f. 16, 17.

One ♂, from R. Sapó, Dec. 13th, 1874.

PYRALIDIDÆ.

42. *Ugra paralle*la.

*Ugra paralle*la, Wlk., Cat. Lep. Het. B. M., xxvii., p. 189.

Fore wings entirely dull red, with two vertical yellowish lines, which exactly trisect the wing; fringe dull red, with yellowish apices. Hind wing ochreous-white, rather transparent, tinged towards the costa with reddish grey, but without markings. Head, thorax, and antennæ dull red; abdomen greyish. Under side pale pinkish grey.

One ♀, R. Javary, Dec. 1st, 1874, at light, in very poor condition; an unnamed brightly-coloured male example, but without a body, is in the British Museum Collection, from Espiritu Santo. This is properly placed among the typical *Pyralidina*. The position of *Ugra paralle*la among the *Crambidæ* is, of course, erroneous.

43. *Hemimatia atrament*alis.

*Hemimatia atrament*alis, Ld., W. E. M., vii., pp. 347, 459, pl. 7, fig. 14.

Two females from Curimatá, R. Jurua, Oct. 30th, 1874.

44. *Anemosa* (?) *roseobrunnea*, n. s.

Fore wing glossy, semidiaphanous, varying from rosy-red to reddish brown, with two more or less distinct darker transverse

* This insect, I have since found, is not the ♀ of *H. nocturnal*is, but of the following species, *D. consp*icualis.

lines, one before the middle simply curved, the other beyond slightly sinuous; a dark central dash between them at the end of the cell; fringe glossy, with the base darker, the extremities light, in some examples pearly white. Hind wing oleaginous, in the rosy-red specimens with the hind margin more or less broadly reddish; in the browner examples merely brown; sometimes also showing an obscure darker line near the anal angle; fringes as in fore wing. Head, thorax, and antennæ concolorous with the fore wings; abdomen more cinereous, with rosy or brownish anal tuft. Under side glossy yellowish, tinged with rosy or brownish; tongue, under side of abdomen, pectus, and legs pearly white; first joint of the fore tibiæ brown on the outside. Expanse of wings, 18—20 mm.

Eight males, taken, it would seem, more or less throughout the year: the first at Gepatiny, R. Purus, March 29th, 1874; the second, R. Madeira, May 17th, 1874; the third, Sept. 28th, 1874, at Mannia, R. Purus; the fourth from R. Javary, Dec. 7th, 1874; the fifth from Boaventura, R. Jutahi, Jan. 24th, 1875; the sixth from R. Jutahi, Jan. 27th, 1875; the seventh from R. Jutahi, near R. Curnem, Jan. 29th, 1875; and the eighth and last from Santarem, also on R. Jutahi, Feb. 2nd, 1875.

It seems strange that of a species thus taken on and off throughout the year no females should have been met with, nor any previous record of its occurrence be discoverable.

SICULODIDÆ.

45. *Iza nebulosa*, n. s.

Fore wing shining ochreous-grey, with darker markings forming a basal patch, the outer edge of which is most distinct towards the costa, but fades gradually away towards the inner margin. An angulated central fascia as in *I. nubecula*, but more indistinct, and an indistinct submarginal fascia; extreme apex paler, more glossy. Hind wing dark ochreous with darker reticulations, which in the centre become brownish, and form a disconnected fascia. Head, thorax, abdomen, and fringe dark ochreous. Under side pale straw-colour, with all the markings plainer. Expanse of wings, 45 mm.

Two males from R. Jutahi, near the mouth of R. Curnem, Jan. 29th, 1875, and one ♀ from Lages, mouth of R. Negro, Aug. 4th, 1874.

This species belongs to Guenée's ninth group, which

Walker erected into the genus *Iza*. In his preliminary remarks on the family *Siculodidæ* in general, Guenée states (Ann. Soc. Ent. de France, ser. v., vol. 7, 1877) that they are entirely destitute of a frenum. This is certainly not the case. In the three specimens of *Iza nebulosa* it is quite plain and strongly developed, being, as usual in the ♀, divided into three branches. It is also present, though finer and less conspicuous, in the ♀ of *Siculodes rhomboidea*. In the fore wing the costal nervure is armed at its base with a large curved tuft of scales, but this is quite distinct from the loop further on, which is clear enough. Along the centre of the cell beneath is a double row of short, curved, glistening hairs.

46. *Siculodes rhomboidea*, n. s.

Fore wings glossy ochreous, mottled with darker, and with brown markings; these form two narrow curved fasciæ near the base, which coalesce on the inner margin; an irregular central fascia, narrow on the costa and inner margin, where it approaches the two basal fasciæ, broadening out into an angle towards the apex, where it joins an angulated narrow submarginal fascia; in it at its widest part are two or three brown flecks; extreme apex lighter. Hind wings ochreous with darker mottlings, with three irregular dark brown fasciæ, honeycombed with paler; in the paler space between the central and submarginal fasciæ is an isolated brown spot. Apex of the hind wing prominently blunt. Head, thorax, and abdomen mottled light and dark ochreous. Fringes dark. Expanse of wings, 32 mm.

One ♀. Laranjal, R. Manhes, May 5th, 1874.

The species belongs to Guenée's second group, in which the palpi are upcurved, the terminal joint fully as long as the second, erect and narrow, the top of the second joint even reaching as high as the summit of the head. The fore wings are narrow and elongated, and the hind wings have the apical angle prominently but bluntly produced, with the hind margin beneath it somewhat indented.

MARGARONIADÆ.

47. *Hoterodes nervosa*, n. s.

Fore wing white, semidiaphanous; with the nervures fuscous, and with some fuscous furry scaling along the nervures towards the base of the wing; costa broadly white to the apex; hind wing

like the fore wing. Head, thorax, and abdomen all whitish. Expanse of wings, 44 mm.

One ♀ from Uananáa, north bank of R. Solomoens; R. Purus, Sept. 6th, 1874.

48. *Pachyarches lustralis*.

Margarodes lustralis, Gn., Delt. & Pyr., 306, 324.

Margaronia lustralis, Wlk., Cat. Lep. Het. B. M., xviii., 520.

One ♂ from R. Javary, Dec. 8th, 1874.

Walker seems to have confounded this species and *P. imitalis*: of the seven examples of this latter mentioned by him, four are really *P. lustralis*. This latter is larger than *P. imitalis* (38 mm. as compared with 28 mm.), and has glaucous-green fore wings, while those of *P. imitalis* are milk-white.

49. *Pachyarches aurocostalis*.

Margarodes aurocostalis, Gn., Delt. & Pyr., 305, 322.

? *Geometra costata*, Fab., E. S., iii., 2, 287.

One ♂ from Boa Ventura, R. Jutahi, Jan. 24th, 1875.

Guenée's type was from Guadaloupe; there are no examples in the British Museum Collection. The present specimen, which is in perfect condition, has the fore wing shot with shining grey, especially along the inner margin (where it is interrupted by a white spot), and along the hind margin and fringes of both wings; a small dark spot at the end of the cell; the marginal points of both wings black and distinct. With these exceptions the example answers well to Guenée's description.

50. *Hyalitis bajulalis*.

Hyalitis bajulalis, Gn., Delt. & Pyr., 291, 294.

Seven examples. Five males from R. Javary, Dec. 2nd and 4th; one male from R. Purus, Sept. 13th, 1874; and one ♀ from Serpa, Feb. 13th, 1875.

Guenée's types, a male and female, were from Cayenne.

51. *Eudioptis emeusalis*.

Phakellura emeusalis, Wlk., Cat. Lep. Het. B. M., xviii., 513.

Nine specimens, all males. One from R. Madeira, May 24th; one from Guajaratuba, R. Purus, Sept. 11th; five from R. Jurua, Oct. 29th, Nov. 3rd, 5th, 7th, 8th; two from R. Javary, Nov. 30th and Dec. 3rd, 1874.

Walker's type, in Mr. Fry's collection, was from Rio Janeiro.

52. *Eudioptis nitidalis*.

Phalæna-Pyralis nitidalis, Cram., Pap. Exot., iv., 160, pl. 371, fig. F; v., pl. 22, fig. 10.

Nine specimens, all males. One from the west bank of R. Madeira, May 16th; one from Curimata, R. Jurua, Oct. 30th; one below Tabatinga, Nov. 28th; one from R. Javary, Dec. 2nd, 1874; three from R. Jutahi, Jan., 1875; and two in February from the same locality.

53. *Eudioptis exclusalis*.

Phakellura exclusalis, Wlk., Cat. Lep. Het. B. M., xxxiv., p. 1361.

One ♂ from Itatoro, R. Madeira, June 2nd, 1874.

The specimen in Mr. Birchall's collection, from which Walker made his description, was from Bogotá.

54. *Eudioptis lucidalis*.

Eudioptis lucidalis, Hüb., Verz. Schm., 359, 3440.

Two specimens, both males. One from Jamiry, R. Madeira, May 28th, and one from R. Javary, Dec. 2nd, 1874.

55. *Eudioptis latilimbalis*.

Phakellura latilimbalis, Gn., Delt. & Pyr., 296, 301.

Twelve specimens, all males. Four taken on R. Madeira, May 24th, 1874; two on its tributary, R. Marmellos, June 1st; three on R. Jurua, Oct. 29th; one on the R. Javary, Dec. 2nd; and two on the R. Jutahi, Jan. 25th, 1875.

Guenée's type was from Brazil; this also was a ♂. There are no examples in the British Museum Collection.

56. *Eudiotis hyalinata*.

Phalæna-Geometra hyalinata, L. S. N., iii., 2, 873, 279.

Phalæna-Pyralis marginalis, Cram., Pap. Exot., iv., 160,
pl. 371, fig. D; v., pl. 22, fig. 9.

Phakellura gigantalis, Snellen, Tijd. v. Ent., 1875,
p. 234, pl. 13, figs. 7, 8.

Four examples. Three males from Fonte Boa, R. Solomoes, Nov. 16th, 1874, Manhes, April 27th, 1874, and Hyntanaham, R. Purus, Sept. 28th, 1874, respectively; one female from P. m. de Salois, April 19th, 1874.

Snellen's *gigantalis* appears to be merely a large form with narrower band to the hind margin. The fifth example in the British Museum Collection (marked *h* in Walker's Catalogue) from the West Coast of S. America is this variety, and the ♂ above mentioned from Fonte Boa is another.

57. *Eudiotis arguta*.

Phakellura arguta, Ld., W. E. M., vii., pp. 401, 478,
pl. 13, fig. 15.

Two specimens, both males; that from Tunantins, Nov. 23rd, 1874, the other from Lages, Jan. 1st, 1875.

Lederer gives N. America as a locality. Snellen, Tijd. v. Entom., 1875, p. 232, records two males taken in January, 1871, near Puerto de Ocaña, on the R. Magdalena.

58. *Glyphodes sibillalis*.

Glyphodes sibillalis, Wlk., Cat. Lep. Het., B. M., xviii.,
p. 506.

G. Batesi, Feld., Reise Nov., pl. 135, fig. 29.

Four males. One from Jamiry, R. Madeira, May 28th, 1874: one from Itatoro, on the same river, June 2nd; one from Ilha das Araras, June 3rd; and one from R. Javary, Dec. 8th.

Felder's specimen is a ♀ from the Amazons; in the note to the figure are the words "very much like *G. sibillalis*, Wlk." To me it seems identical.

ZEBRONIADÆ.

59. *Zebronia perspicata*.

Phalæna perspicata, Fab., Mant., ii., 213, 240.

Spilomela perspicalis, Gn., Delt. & Pyr., 280, 273 ;
 Ld., W. E. M., vii., p. 442.

Zebronia perspicalis, Wlk., Cat. Lep. Het. B. M., xvii.,
 471.

Phalæna-Pyralis strigialis, Stoll, pl. 12, fig. 7.

One ♂. Near the mouth of R. Jurua, Nov. 14th, 1874.

60. *Zebronia ledalis*.

Zebronia ledalis, Wlk., Cat. Lep. Het. B. M., xvii.,
 p. 474.

One ♂ from Pupunha, R. Jurua, Oct. 1st, 1874.
 Walker's types were from Ega.

The species is evidently closely allied to *Zebronia* (*Ochlia*) *pantheralis*, Hüb., Zutr., iv., 20, 337, figs. 673, 674, from N. America ; but the ground colour of this last is given as straw-yellow.

Zebronia phenice = *Phalæna-Pyralis phenice*, Cram., Pap. Exot., iv., 185, pl. 382, fig. g. = *Zebronia fæderalis*, Hüb., Verz., 361, 3456 = *Spilomela phenicealis*, Gn., Delt. & Pyr., 281, 275 = (?) *Spilomela podalirialis*, Gn., Delt. & Pyr., 281, 274, seems entirely to have escaped Lederer's observation, though it forms the type of Hübner's *Zebronia*. I see no reason why this name should not be restored to the genus in place of Guenée's far more modern *Spilomela*.

61. *Synclera jarbusalis*.

Samea jarbusalis, Wlk., Cat. Lep. Het. B. M., xvii.,
 p. 352.

Four males, R. Madeira, May 26th, 1874 ; one female, R. Javary, Dec. 6th, 1874 : all at light. Walker's types are from St. Domingo.

Very closely allied to *Synclera traducalis*, Z. = *Glyphodes univocalis*, Wlk., which occurs in S. Africa, Syria, and Hindostan ; but this last has the pale spaces along the hind margin and the segments of the abdomen pearly white.

62. *Conchylodes bunusalis*.

Zebronia bunusalis, Wlk., Cat. Lep. Het. B. M., xix., 967.

One ♀. Boa Ventura, Jan. 24th, 1875; at light. Walker's types were from Rio Janeiro.

63. *Leucochroma minoralis*, n. s.

Fore wings pearly white, with the extreme base yellow; three subcostal dark-edged yellow spots, the second and third representing the two stigmata, and obliquely below them, and nearer the base, three others, forming with the upper series three interrupted fasciæ; a blackish spot obliquely below the reniform stigma, followed by two diffuse yellow curved fasciæ, the inner one of which is bifurcate towards the costa. Hind wings pearly white, with a central abbreviated dark-edged yellow band, an internally dark-edged yellow submarginal fascia, bifurcate at the apical angle; a fine yellow line at the base of the fringes. There is no trace of a dark denticulated submarginal line, such as occurs in *L. splendidalis*, and it is about one-third smaller. Head and thorax white, dusted with yellow; abdomen whitish, yellow at the sides. Expanse of wings, 19 mm.

One ♀, of which the locality and date are both illegible.

64. *Homophysa sulphuralis*.

Phalæna-Pyralis sulphuralis, Cram., Pap. Exot., iv., 113, pl. 348, fig. e.

Homophysa sulphuratalis, Gn., Delt. & Pyr., 365, 448.

One ♀. Itatoro, R. Madeira, June 2nd, 1874.

Lederer made a separate family, *Homophysidæ*, to include this genus and *Scybalista*, solely because the first subcostal branch of the fore wing is not free, but rises out of the second. This single peculiarity in neuration hardly seems sufficient reason for forming a new family, adequate though it may be for generic distinction.

DESMIADÆ.

65. *Desmia lauralis*.

Salbia lauralis, Wlk., Cat. Lep. Het. B. M., xvii., p. 358.

Two males taken at light. One at Lages, Jan. 5th,

1875; the other at Miriti, on the River Madeira, May 21st, 1874.

The antennæ of the ♂ show this insect to be a true *Desmia*.

66. *Salbia pellucidalis*, n. s.

Wings semidiaphanous, ochreous-white, with pale olive-brown shading, deepening into purple towards the base and hind margin. Fore wings at the extreme base bronzy purple; before the middle a thin dark curved line, before which on the inner margin the wing is whitish hyaline; second line beyond the middle forms two curves and a rounded projection externally between them, is interrupted before reaching the anal angle, and terminates near the centre of the inner margin underneath the dark lunular cellular spot; beyond the second line are oval hyaline spots between the nervules, and one before and another below the cellular spot. The space between the lines is suffused with olive and brown, the costa itself being fulvous; the whole apical region is bronzy purple, darker before the purplish fringes. Hind wings hyaline, with a broad olive fascia near the base, a narrower broken one beyond, and the hind margin broadly olive, black at the anal angle; fringe whitish, with a dark basal and medial line. Head and thorax dark olive-brown; abdomen fulvous, the two first segments pale, the last segment with two narrow white streaks; under side of abdomen and legs white. The above description applies to the ♂; the ♀ is smaller and darker, without the brown and olive tints. Expanse of wings, ♂ 24, ♀ 20 mm.

Three males, R. Madeira, May 26th, 1874. A ♀ from Espiritu Santo, unnamed, is in the British Museum Collection.

67. *Salbiomorpha ancidalis*.

Salbiomorpha ancidalis, Snellen, Tijds. v. Ent., 1875, xviii., p. 216, pl. 12, figs. 11, 12.

One ♂. Itatoro, R. Madeira, June 2nd, 1874.

Easily distinguished by the peculiar fold on the *inner margin* of the ♂ fore wing.

CROCIDOCNEMIS, n. g.

Fore wing with the costa curved throughout; apex rounded; hind margin obliquely curved; hind wing triangular, the anal and apical angles rather prominent. Antennæ short, thick, laminated, strongly pubescent beneath; palpi short, diffusely scaled, hardly

projecting beyond face; terminal joint invisible; tongue present; legs stout and strong; abdomen with dark anal tuft, and with a flock of black hairs at the base of the hind femora. Neuration: Fore wing with the costal and first subcostal branch very long; second, third, and fourth on a common stem rising from the upper angle of cell; second and third short and very oblique; upper radial curved at its base, also from the angle of the cell; first median branch at four-fifths; second and third from lower angle of cell; lower radial just above them, submedian strongly forked at base. Hind wing: Costal suddenly bent in middle towards the subcostal, then curving away again, with two short branches; subcostal simple; first median branch at two-thirds; second, third, and radial, one above the other near the lower angle of cell.

68. *Crocidocnemis pellucida*, n. s.

Fore wing sand-coloured, dusted with brownish along the costa and hind margin, and in the basal area with three short semi-hyaline transverse fasciæ, which do not reach the costa, and widen out and more or less unite along the inner margin; orbicular stigma before the centre, flattened between the subcostal and median veins, with curved darker lateral edges; beneath it and contiguous just such another spot between the median and submedian, these both preceded and followed by a narrowish hyaline space; reniform stigma very broad, trapezoidal, its edges darker, and with a broader hyaline fascia beyond it and below it, traversed by one or two slender brown lines; towards the inner margin is a short brown line, and beyond it a brownish blotch; four darker spots on the costa before the apex. Hind wing with the basal half more or less hyaline, with a brown central spot, two sinuous brown lines, and a sandy brown hind margin. Palpi white beneath, brownish above; thorax and abdomen mixed sandy and whitish; anal tuft dark. Under side of wings glossy ochreous, the markings faintly visible. Expanse of wings, 30 mm.

One ♂. Pupunha, R. Jurua, Nov. 1st, 1874.

Related to *Samea*, but distinguished by its larger size, rounded costa and apex, and by the tuft of hairs attached to the base of hind femora.

69. *Hymenia perspectalis*.

Pyralis perspectalis, Hüb., Exot. Schm., Pyral., fig. 101.

Zinckenia perspectalis, Ld., W. E. M., vii., p. 437.

One ♀. Miriti, R. Madeira, May 21st, 1874.

70. *Ædiodes sepulchralis*.

Desmia sepulchralis, Gn., Delt. & Pyr., 190, 123.

One ♂, without any notice of locality or date, and in very poor condition. It differs from the other species of *Ædiodes* by the smallness of the first hyaline spot, which Guenée calls comma-shaped. His type, a ♀, was from Cayenne. Lederer seems to have ignored the species altogether. The ciliated antennæ, without the nodosity of *Desmia*, prove it an *Ædiodes*.

71. *Lamprosema lunulalis*.

Lamprosema lunulalis, Hüb., Zutr., ii., 21, 152, figs.

303, 304; Moeschler, Surinam, iv., p. 40 (430).

Asopia lunulalis, Gn., Delt. & Pyr., p. 205; Wlk., Cat.

Lep. Het. B. M., xvii., p. 368.

Ædiodes (?) *lunulalis*, Ld., W. E. M., vii., p. 434.

Desmia pelealis, Wlk., l. c., xvii., p. 338.

D. canacealis, Wlk., l. c., xvii., p. 342.

Botys dorisalis, Wlk., l. c., xviii., p. 616.

B. codrusalis, Wlk., xviii., l. c., p. 616.

B. ænippealis, Wlk., l. c., p. 619.

One ♀, R Jutahi, Jan. 31st, 1875; in poor condition. In the British Museum Collection there are five examples of *Desmia pelealis*, three of *Botys*, and one unnamed without abdomen, but otherwise very perfect, from Espiritu Santo.

The type of Walker's *D. canacealis* differs slightly from *L. lunulalis*, the upper surface being more mottled with fuscous, and all the wings having a more strongly-marked marginal metallic line; the white costal spot at the base of the second line is much more visible on the under side, but I doubt if it is really distinct. In fresh specimens of *L. lunulalis* the second line is followed, especially on the hind wing, by a lustrous metallic band.

72. *Samea ecclesialis*.

Samea ecclesialis, Gn., Delt. & Pyr., 194, 132.

S. castellalis, Gn., Delt. & Pyr., 195, 133.

S. disertalis, Wlk., Cat. Lep. Het. B. M., xxxiv., p. 1302.

S. discessalis, Wlk., ib., xxxiv., p. 1302.

One male, Jamiry, R. Madeira, May 26th, 1874, at light; six females, Fáro, April 11th; Saviao, R. Jurua, Nov. 10th; R. Madeira, May 16th, 1874.

Walker says of *S. castellalis* that it is hardly distinct from *S. ecclesiæ*, and that *S. discessalis* is very near to *S. disertalis*. The only difference is in the size and extent of the pale spots, owing to the greater or less diffusion of the darker tints.

MEGAPHYSIDÆ.

73. *Agathodes monstralis*.

Agathodes monstralis, Gn., Delt. & Pyr., 209, 165.

A. designalis, Gn., ib., 209, 166.

Two males. One from Obydos, March 8th, 1874; one from R. Javary, Nov. 30th, 1874: both at light.

Guenée gives N. America for *A. monstralis*, Brazil and N. America with a query for *A. designalis*. The *A. designalis* in the British Museum Collection is from Mexico, the *A. monstralis* from the United States and St. Domingo. The only difference seems to be in the narrower white costal streak of *A. designalis*, but this is merely relative.

Lederer, without any reason, substitutes the name *Stenurges* for *Agathodes*, because Guenée had already used *Achatodes*.

*74. *Leucophotis lybialis*.

Botys lybialis, Wlk., Cat. Lep. Het. B. M., xviii., p. 624.

B. amatalis, Wlk., ib.

One ♀. R. Jurua, Nov. 7th, 1874.

Mr. Butler established the genus *Leucophotis* for a species of comparatively large size (49 mm.), *L. pulchra*, from Fiji. This appears to be distinctly related to the genus *Leucinodes* by the neuration, the ground colour, and the markings of the wings; and notwithstanding

* The location of this species in the genus *Leucophotis* I have since found to be incorrect: it should probably form the type of a separate genus intermediate between *Aphytoceros*, Meyr., and *Azochis*, Walker.

the pectinated antennæ, I cannot hesitate to refer to it the present species, *Botys lybialis*, Wlk., and the next succeeding species, *B. amatalis*, Wlk., which is certainly the same. The greater development in the constitution of the antennæ is not uncommon in conjunction with an increase in the size of an insect; indeed, there is an example in the British Museum Collection, at present not named, of an insect which approaches *L. pulchra* in size, and has the antennæ subdentate, forming an intermediate link between *L. pulchra* with its decided pectinations, and *L. lybialis* with its simply laminated antennæ. The species referred to is from Goya, in the Argentine Republic. Another unnamed and still smaller species, from Burmah, is probably referable to this genus also.

75. *Leucinodes imperialis*.

Leucinodes imperialis, Gn., Delt. & Pyr., 223, 186.

One ♂. Obydos, Feb. 14th, 1874. Guenée's type was from Hayti.

76. *Leucinodes discerptalis*.

Leucinodes discerptalis, Wlk., Cat. Lep. Het. B. M., xxxiv., p. 1313.

One ♀. Cararaucu Lake, April 18th, 1874.

The type in the British Museum Collection is from Limas, Honduras.

DEUTEROPHYSA, n. g.

Fore wing about twice as long as broad, with the costa for the most part straight, but suddenly convex before the apex, which is slightly but bluntly produced; hind margin faintly indented below the apex, and bulging out above the anal angle. Antennæ short, thick, laminated, as in *Lepidoceras*. Palpi damaged, but apparently the same as in *Cyclocausta*. Neuration: Fore wing with the first median branch starting from the median before the middle of the wing, second from about the middle; third and fourth from the same point, at the same distance beyond the second as that is from the 1st. No disco-cellular. A little beyond the middle of the wing the subcostal is swollen, and from the swelling the first, second, and fourth subcostal branches rise one after the other; the third short, running out of the fourth before the apex. Above the

swelling the costa itself is somewhat thickened, while below it there is a bladdery semihyaline space, across which the two radials can be seen running, and apparently uniting within the usual cellular space. Hind wing: Costal with two short branches; subcostal running very close to it, and having a single branch; median nervure curved; the first median branch starting before the middle of the wing; second about the middle; just beyond this last point a nervure is thrown back in the direction of a small bladdery space, which appears to correspond with that on the fore wing; third and fourth median branches short, from a long stalk.

In shape, coloration, and markings of the wings, as well as in the form of palpi and antennæ, the genus *Deuterophysa* corresponds well with *Adena*, Wlk.; but the neururation is totally distinct. In *Adena* the cell of the fore wing reaches to quite two-thirds of its length, and the disco-cellular is well-marked and vertical; in *Deuterophysa*, on the other hand, the cell is short, barely extending to half the wing, with the disco-cellular indistinct and oblique, the third subcostal branch and lower radial being stalked. *Adena sericea*, Butler, from Japan, corresponds more closely in the matter of neururation with *Deuterophysa*, having, like it, a very short cell, but the third subcostal branch and lower radial are not stalked. At all events, its position will be near *Adena*.

Walker's only species of *Adena* (for it is but one species, though he gave it three names, viz., *Scopula* (?) *paronalis*, xviii., 797, *Scopula hybreasalis*, xviii., 797, and *Adena xanthialis*, xxvii., 198) is from New Zealand, and varies considerably.

Mr. Butler, Ann. N. H., 1879, pt. ii., p. 451, alters Walker's name *Adena* into *Deana*, to avoid any clashing between it and *Hadena*; and Mr. Meyrick (Trans. Ent. Soc. Lond., 1884, p. 330) sinks it altogether, and substitutes *Nesarcha*: I must own that I cannot see the necessity for either alteration or substitution.

77. *Deuterophysa costimaculalis*, n. s.

Fore wing dull fawn-coloured, without markings; a pale yellow spot on the costa just beyond the middle, and below it an oblique pear-shaped white blotch, without scales, but edged with darker; fringes, as far as can be made out, whitish. Hind wing whitish, with darker hind margin. Head, thorax, and abdomen fawn-

coloured. Under side of fore wing dull fawn, of hind wing whitish. Expanse of wings, 17 mm.

One ♂ from Bóa Vista, R. Jutahi, Feb. 1st, 1875.

The only specimen is unfortunately much damaged, but the peculiar swelling of the subcostal vein and the semihyaline space below are good characteristics.

CYCLOCAUSTA, n. g.

Fore wings narrow, nearly three times as long as broad, with the costa straight, the hind margin oblique. Antennæ short, thick, laminated, the joints overlapping each other above and smooth, but finely angulated beneath. Palpi porrected, drooping, the second joint thickly clothed with hairs, the terminal joint thin and nearly bare, but they are somewhat denuded in the solitary specimen in the collection, and when intact probably resemble *Leptosteges*. Maxillary palpi short, feathery. Scaling of wings fine and thin. Neuration: Fore wing, interno-median fold visible towards the hind margin; first median branch leaving the median at about the middle of the wing, the second a little beyond, the third lower radial still further, the latter forming the continuation of the median, which is slightly undulated in the middle; no disco-cellular discernible; first subcostal branch starting from the subcostal before the middle; the fourth and fifth from the same point where the upper angle of the cell should be; the second and third, one after the other, out of the fourth; radial free from the upper part of the disco-cellular region. Hind wing: Costal free, with two short branches; subcostal closely approximating, if not quite anastomosing, with a single branch; no visible disco-cellular; first median branch from before the middle of the wing; second from about the middle; third and radial beyond from the same point; the radial as in the fore wing, forming a curved continuation of the median.

78. *Cyclocausta trilineata*, n. s.

Fore wing white, slightly shining, with a dark brown costal streak, which thins out towards the apex; hind margin and two transverse lines parallel to it brown. Hind wing white, with the last three markings of the fore wing repeated. Head, thorax, and abdomen white; palpi brownish. Under side clear white. Expanse of wings, 18 mm.

One ♂ from the R. Jutahi, near R. Curnem, Jan. 1st, 1875.

The only specimen is so much worn that only a partial description of it can be given.

It is a well-known fact that the use of the term *Botys* for a genus of *Pyrallidina* has been all along an error, the type of *Botys*, as ultimately restricted by Schrank himself, being the Geometer now known as *Lythria purpuraria*. This being the case, no good can be done by perpetuating the blunder. Mr. Moore, in his work on the Insects of Ceylon, vol. iii., has adopted, from Hübner's 'Verzeichniss,' the generic name *Hapalia* as a substitute for *Botys*, and it will, I think, avoid confusion if we call the family *Hapaliadæ*.

HAPALIADÆ.

PHOSTRIA, Hüb.

This genus was placed by Hübner, along with *Thyris*, next to the *Sesiæ*. Although this position was wrong, the name of the genus will stand for a group of *Pyrallidina*, for which I herewith give the following diagnosis:—

Fore wing narrow, elongate, the costa two-thirds as long again as the inner margin; costa straight till shortly before apex, where it becomes suddenly convex. Apex acute; hind margin very oblique, with a slight elbow in the middle, which is also reproduced in the hind wing; fore wings with three rows of dull white semi-diaphanous spots; hind wing with two rows. Palpi short, rounded, not reaching above the eyes; first joint beneath white; second triangular, ascending, concolorous with the fore wing; third joint very minute, blunt. Tongue well-developed, scaly at base; face smooth, forehead rough; patagia rather long, extending beyond thorax. Antennæ simple, finely pubescent. Femora and tibiæ hairy inside; all the tarsi and the middle tibiæ white. Neuration: First, second, and third subcostal branches apparently all free, and running closely parallel to each other; fourth and fifth from end of cell; first median branch near the end of cell, second from the end, third and lower radial close together, a little above the lower end of cell; upper radial from a little below the upper end; internal vein curving round, and forming a loop by coalescing with the submedian. Hind wing: Costal bent, with two branches; subcostal approximating to costal in the middle, then divergent; first median branch one-fifth before the end of cell, second only just before it; third along with the radial from the lower angle of cell.

79. *Phostria temira*.

Phalæna-Pyralis temira, Cram., Pap. Exot., iv., p. 160, pl. 371, fig. E.

? *Hyalitis temira*, Gn., Delt. & Pyr., p. 289.

? ? *Glyphodes temiralis*, Wlk., Cat. Lep. Het. B. M., xvii., 507.

Wings reddish; fore wing with a minute yellowish blotch at the end of the cell, and six hyaline white spots; one basal between the median and submedian; three central, two of irregular shape, one above the other, and a minute one obliquely outside them; three submarginal, one large and two small, obliquely below it. Hind wing with two irregular curved hyaline blotches; in the space between them are two smaller yellowish blotches, and a single white spot; fringes of both wings white, chequered with dark towards the centre. Under side purplish pink, with the costa, central, and apical region yellowish. Head, palpi, thorax, and abdomen concolorous; anal tuft ochreous; under side of the abdomen, together with the tarsi, creamy white.

One ♂ from R. Curnem, a tributary of R. Jutahi, Jan. 29th, 1875.

Akin to *Botys* (?) *oajacalis*, Wlk., xxxiv., p. 1393, and to *B. pelialis*, Felder, Reise Nov., pl. 135, fig. 46, both from Mexico, in which also the under side of the abdomen and all the tarsi are snowy white. Akin also to *Phalæna-Pyralis tedeæ*, Cram., iv., p. 48, pl. 312, fig. G, of which there are two unnamed examples in the British Museum Collection from Duenas, Guatemala; but this, though having the tarsi white, has the under side of the abdomen dark brown, like the ground colour of the wings.

80. *Phostria persiusalis*.

Botys persiusalis, Wlk., Cat. Lep. Het. B. M., xviii., p. 623.

Two females. One from R. Jutahi, Jan. 31st, 1875; the other from S. Antonio, R. Negro, July 5th, 1874.

Walker's type was from Rio Janeiro, and is in Mr. Fry's collection. There are no examples in the British Museum.

Besides the two species here mentioned as occurring in this collection, there are several others which must

be included in the same genus, of which it may be useful here to give briefly the names and synonymy:—

Phostria tedeæ.

Phalæna-Pyralis tedeæ, Cram., iv., p. 48, pl. 312, fig. α.

Desmia (?) *tedeæ*, Ld., W. E. M., vii., p. 433.

Hyalitis (?) *tedeæ*, Gn., Delt. & Pyr., p. 289.

Glyphodes ? *tedealis*, Wlk., Cat. Lep. Het. B. M., xvii., 506.

Phostria tedeæ, Möschler, Surinam, iv., p. 40 (430).

Habitat. Surinam. Two examples in the Brit. Mus. Collection.

Phostria oajacalis.

Botys oajacalis, Wlk., Cat. Lep. Het. B. M., xxxiv., 1393.

Habitat. Mexico. One specimen in the Brit. Mus. Collection.

Phostria pelialis.

Botys pelialis, Feld., Reise Nov., pl. 135, fig. 46.

Habitat. Mexico.

Phostria confluentalis, n. s.

Habitat. Rio Janeiro. One example in the Brit. Mus. Collection.

81. *Astura elevata.*

Phalæna elevata, Fabr., E. S., iii., 2, 216, 325.

Astura elevata, Gn., Delt. & Pyr., 319, 345.

One ♀. Pupunhazinho, R. Jurua, Nov. 8th, 1874.

The examples in the British Museum Collection are from Para and Ega.

82. *Omiodes leporalis* (?).

Omiodes leporalis, Gn., Delt. & Pyr., 357, 428.

One ♀. Prainha, Nov. 11th, 1873.

The example is very much worn: owing to this circumstance, and the fact that there is no example of Guenée's insect in the British Museum Collection, I can only make a probable identification. The shape of the fore wings is evidently that of an *Omiodes*.

83. *Eulepte concordalis*.

Eulepte concordalis, Hüb., Exot. Schm., i., B. 1;
Möschler, Surinam, iv., 38 (428).

Botys concordalis, Gn., Delt. & Pyr., 345, 399; Wlk.,
Cat. Lep. Het. B. M., xviii., 608; Ld., W. E. M.,
vii., p. 375.

Phalæna-Pyralis socialis, Sepp., Surinam, iii., pl. 114.

Botys gastralis, Gn., Delt. & Pyr., 346, 400; Wlk.,
Cat. Lep. Het. B. M., xviii., 570.

Acrospila gastralis, Ld., W. E. M., vii., p. 392, pl. 13,
fig. 5.

Botys ogmiusalis, Wlk., Cat. Lep. Het. B. M., xviii.,
p. 317.

One ♂ from Obydos, March 8th, 1874.

Guenée's types—two females—of *B. gastralis* were from Haiti and Guadaloupe; of *B. concordalis*—one male, two females—from Brazil: he himself says *B. gastralis* is closely allied to *B. concordalis*, but is larger, expanding 35 mm. in contrast to the 27 mm. of *B. concordalis*. The single example of *B. gastralis* in the British Museum Collection is, like Guenée's, from St. Domingo; those of *B. concordalis* from Venezuela, Ega, and Villa Nova. The locality for *B. ogmiusalis*, Wlk., was not known.

According to Möschler, *l. c.*, Lederer himself, though in his treatise he had separated the two species, subsequently reunited them in the Vienna Museum.

84. *Trithyris fenestrinalis*.

Trithyris fenestrinalis, Ld., W. E. M., vii., p. 410.

Botys fenestrinalis, Gn., Delt. & Pyr., 341, 389, pl. 5,
fig. 8.

Three examples. One ♀, R. Jurua, Nov. 3rd, 1874, and a pair from Gaviao, also on the R. Jurua, Nov. 10th.

Guenée's two females were from Brazil, as was Walker's male. Guenée's description gives a far more exact idea of the species than Walker's.

85. *Microthyris sectalis*.

Botys sectalis, Gn., Delt. & Pyr., 353, 421.

Microthyris scotalis, Ld., W. E. M., vii., p. 353.

One ♀, from Lages, at the mouth of R. Negro, Aug. 5th, 1874. Guenée's type, a ♂, was from Brazil.

The genus was instituted by Lederer, and characterised by the peculiarly produced anal angle of the hind wing in the ♂.

86. *Microthyris prolongalis*.

Botys prolongalis, Gn., Delt. & Pyr., 353, 420, ♂.

B. eurytalis, Wlk., Cat. Lep. Het. B. M., xviii., p. 576, ♂.

One ♀, from Pupunhazinho, Nov. 8th, 1874.

Guenée's male was from Brazil. The three males in the British Museum Collection, which form the types of Walker's *B. eurytalis*, are from Jamaica and St. Domingo. The descriptions both of Guenée and Walker apply, of course, only to the males. In the females the hyaline spots are much larger and more conspicuous, and the course of the lines can be clearly traced. In both sexes the palpi are unicolorous fuscous. In *M. sectalis*, on the other hand, they are distinctly parti-coloured.

DIASTREPTONEURA, n. g.

Fore wing short, broad, triangular; costa strongly arched at the base, slightly concave before the middle and convex before the apex, which is rounded; hind margin and inner margin forming a single curve, almost semicircular, with a slight indentation before the anal angle. Hind wing narrower, with the centre of the hind margin produced, but rounded off. Antennæ long, strongly pubescent beneath; palpi ascending, smooth, compressed; third joint short, blunt, not rising above head; tongue present; abdomen in ♂ with a long tuft of hair. Scaling glossy. Legs stout, with femora and tibiæ hairy. Neuration: Fore wing, costal thin to the middle of the costa; subcostal strongly developed; first subcostal branch at one-half of the cell, the other four on one stem rising from the upper angle of the cell; the fifth leaving the stem a little above the angle, the second and third starting from the fourth about the middle; first median branch at two-thirds of the cell, running sharp down into the anal angle; second and third from lower angle of cell, the second running parallel to the first; radials from the disco-cellular, the upper a little below the upper, the lower a little above the lower, angle of the cell. In the lower half of the cell, about half-way, the membrane of the wing beneath is puckered and raised, and a strong fold runs longitudinally from it through the cell, thence between the lower radial and upper median branch to the hind margin, before which it is suddenly deflected

downwards; median vein swollen, with a glossy tuft of scales near the base; submedian very stout, running near the inner margin; interno-median fold distinct, the membrane puckered and distorted along its course. Hind wing with the cell short and broad; disco-cellular angulated internally; costal free; subcostal with two long branches; first median branch just before the end of the cell; second and third on a short common stem from the end; radial from the angle of the disco-cellular; a similar fold to that on the fore wing through the cell to the hind margin.

87. *Diastreptoneura distorta*, n. s.

Fore wing glossy ashy grey, spotted and varied with blackish, especially at the base of the wing, and in the middle of the costa. There are also traces of darker transverse sinuous lines, but the fore wings in both examples are denuded of scales to such an extent that an accurate inspection of the markings is impossible. Fringes shining grey, with a series of long dark lunules at their base; three or four whitish spots along the costa before the apex. Indistinct traces of a pale zigzag submarginal line beyond a dark costal blotch. Hind wing entirely dark grey, with the series of dark lunules before the fringes. Under side shining cinereous, without markings. Head, thorax, and abdomen cinereous, mottled with darker; antennæ wholly dark. The scales of the fore wing are broad, and appear as if attached in more or less vertical lines. Expanse of wings, 24 mm.

One ♂ from R. Jurua, Nov. 6th, 1874, and another from Gaviao, on the same river, Nov. 10th.

Distinguished by the peculiar shape of the fore wings, as well as by their distorted neurulation. Its position will be near *Phryganodes plicatalis*, Gn.

88. *Pilocrosis amissalis*.

Botys amissalis, Gn., Delt. & Pyr., 351, 415, ♂.

B. agavealis, Wlk., Cat. Lep. Het. B. M., xviii., p. 574, ♀.

? *B. lysanderalis*, Wlk., ib., xviii., 603, ♂.

Pilocrosis ramentalis, Ld., W. E. M., vii., p. 430, pl. 16, fig. 13.

P. amissalis, Ld., ib.

Two females. R. Madeira, May 24th, 1874.

These two examples are not in quite so good a condition as Walker's type of *B. agavealis*, and another

specimen in the British Museum Collection from Espiritu Santo, and as a consequence, the white edgings of the dark lines are more conspicuous. The species will probably prove a variable one: I am not sure that Lederer's *Botys pruinalis*, W. E. M., vii., pp. 373, 469, pl. 9, fig. 6, is not the same insect. Walker's type of *B. agavealis* was from St. Domingo, from Mr. Tweedie's collection.

Lederer had not seen Guenée's *B. amissalis*, and it seems to me that there is but little difference between Guenée's description of that species and Lederer's own figure of *P. ramentalis*. It should be noted that Lederer gives no real detailed description of *P. ramentalis*. Lederer again was unacquainted with the ♀ of either species, but a comparison of the palpi of Walker's *B. agavealis* with those of his (*B.?*) *lysanderalis* shows them to be identical. The ♀ is somewhat more densely scaled, and the basal line is quite plain, not being obscured, as in the ♂, by the basal fold and scales. Besides the example from Espiritu Santo above mentioned, there is a second ♀ from the same place, of rather smaller size, and in poorer condition. I have quoted Walker's synonym, *lysanderalis*, with a query, because his description does not tally either with our present species or with the example from Venezuela, which is placed in the British Museum Collection under that name. It is possible that Walker described *B. lysanderalis* from specimens from Rio Janeiro, and subsequently, thinking that he identified the specimen from Venezuela in Mr. Dyson's collection, placed it in the cabinet accordingly.

89. *Prænesta scyllalis*.

Botys scyllalis, Wlk., Cat. Lep. Het. B. M., xviii., p. 566 (1859).

B. delicatalis, Ld., W. E. M., vii., 376, 473, pl. ii., fig. 10.

Prænesta fabialis, Snellen, Tijds. v. Ent., 1875, xviii., p. 220, pl. 12, figs. 15, 16.

P. sinualis, Snellen, ib., figs. 17, 18.

One ♂. Tunantins, Nov. 23rd, 1874; at light.

Snellen's specimens were taken in January on the R. Magdalena. The type in the British Museum Collection

is from Mexico. There are also three more—one male, two females—unnamed in the same collection from Espiritu Santo.

Var. *castanealis*.

Wings deep fulvous-brown, the lines and markings indistinctly darker; head, thorax, and abdomen concolorous; the last segment with a large blackish anal tuft and two smaller lateral ones. In size, shape, and markings exactly like *Prænesta scyllalis*, of which I take it to be a brown suffused variety. Snellen's figures of *P. fabialis* and *P. sinualis* would then represent intermediate forms.

One ♂. R. Javary, Dec. 4th, 1874.

90. *Acharana phæopteralis*.

Botys phæopteralis, Gn., Delt. & Pyr., 349, 409.

Acharana phæopteralis, Moore, Ceyl., iii., p. 285.

? *Botys siriusalis*, Wlk., Cat. Lep. Het. B. M., xviii., p. 563.

? *B. dicealis*, Wlk., ib.

B. vestalis, Wlk., ib., p. 579.

? *B. plebejalis*, Ld., W. E. M., vii., 373, 469, pl. 10, fig. 8.

B. grisealis, Snell., Tijd. v. Ent., 1875, xviii., p. 198, pl. 11, f. 8.

Nine specimens. One ♀ from Manaos, Jan. 6th; one ♂ from R. Tapajos, March 16th; one ♂ from R. Manhes, May 1st; two females from R. Madeira, May 16th; two females from Ilha das Araras, June 3rd; one ♀ from Gaviao, on R. Jurua, Nov. 10th, 1874; and one ♂ from Santarem, R. Jutahi, Feb. 4th, 1875.

Of *B. phæopteralis* Guenée says, "Common throughout Central America" (Walker erroneously translates it *Southern*); Walker's *vestalis* were from Jamaica. Lederer, in the W. E. M., vii., p. 373, puts forward *B. plebejalis*, but at p. 469 withdraws it, as being only a dark form of *B. phæopteralis*, which he states occurs also in the East Indies, "probably introduced there by ships." Mr. Meyrick, Trans. Ent. Soc. Lond., 1887, p. 230, would make *B. licarsisalis*, Wlk., from Borneo, a synonym of *B. phæopteralis*, Gn.; but it seems to me that Mr. Moore, in his 'Ceylon,' vol. iii., p. 285, is right in considering

that the insect called *B. phæopteralis* by Mr. Meyrick is identical with *B. otreusalis*, Wlk., occurring in Africa, Hindostan, and Borneo, and not with *B. phæopteralis*, Gn.; but *B. licarsisalis*, Wlk., from Borneo, should be added as a synonym. This is probably Lederer's imported East Indian species; *B. siriusalis*, Wlk. (of which *B. licealis*, Wlk., seems to be only a faded example), from N. America and St. Domingo, and his *B. plebeialis*, from Honduras, are both nearly-allied forms, but may be distinguished from *B. phæopteralis*, the former by the darker more opaque scaling, and large diffuse reniform stigma, as well as by the strongly-marked dark band and stigma on the under side; the latter by its much smaller size and yellow-brown tint, and by the ochreous outer margin of the exterior line. I have, however, marked *B. siriusalis* and *B. licealis* as possibly synonyms of *B. phæopteralis*. In fact, the only real difference between the species occurring in the Old World and in America seems to be in the larger size of the former, and we must wait for a knowledge of their larval states before finally accepting their identity or distinctness.

91. *Hapalia spoliatalis*.

Botys spoliatalis, Ld., W. E. M., vii., pp. 375, 473, pl. 11, fig. 8.

One ♂. R. Jutahi, Feb. 5th, 1875; at light.

Lederer's type was from N. America. As it was a ♀ he could make no mention of the dark anal tuft, which is very conspicuous in the ♂. Also the under side of the palpi, thorax, and abdomen are distinctly and strikingly whitish.

92. *Hapalia cernalis*.

Asopia cernalis, Gn., Delt. & Pyr., 203, 152.

Lygropia ? cernalis, Ld., W. E. M., vii., p. 381.

One ♂. R. Javary, Dec. 8th, 1874; at light.

The specimen in the British Museum Collection is from Villa Nova.

93. *Hapalia principialis*.

Botys principialis, Ld., W. E. M., vii., pp. 375, 471, pl. 10, fig. 17.

Closely allied to *Botys cernalis* (*Asopia cernalis*, Gn.), which Lederer had not seen, but placed with a (?) in his genus *Lygropia*. *B. cernalis* has paler yellow more transparent wings; a pale-centred, dark-bordered, reniform stigma, and a fine dark marginal line running parallel to the basal line of the fringes all round both wings. In *B. principalis* this marginal line becomes nothing more than an irregular shade, the reniform stigma is wholly black, and the lower half of the second line is wavy.

One ♀. R. Jutahi, Feb. 2nd, 1875. Lederer gives N. America for habitat.

94. *Hapalia pyrenealis*.

Botys pyrenealis, Wlk., Cat. Lep. Het. B. M., xviii., p. 580, ♀.

B. medonalis, Wlk., ib., xviii., p. 599, ♂.

Three specimens, all males, in good condition. One from R. Purus, Sept. 9th, 1874; one from R. Javary, Dec. 8th, 1874; and one from R. Jutahi, Jan. 21st, 1875.

Walker's *B. pyrenealis* was from St. Domingo, and his *B. medonalis* from Honduras.

In the fresh specimens the two transverse lines are very faintly perceptible, and the white markings, especially along the hind margin, more vivid.

95. *Hapalia superbalis*.

Botys superbalis, Wlk., Cat. Lep. Het. B. M., xxxiv., p. 1397.

B. incalis, Snellen, Tijds. v. Ent., 1875, xviii., p. 202.

Three specimens. One ♀ from R. Madeira, May 26th, 1874; one ♂ from R. Purus, Sept. 15th; and one ♀ from R. Jurua, Nov. 6th.

Walker's type was from Cuenca, from Mr. Frazer's collection. Snellen's three males were taken Jan. 25th, 1871, near Conejo, R. Magdalena.

96. *Hapalia fatualis*.

Botys fatualis, Ld., W. E. M., vii., p. 475, pl. 11, fig. 15.

One ♀. R. Jutahi, above R. Curnem, Jan. 24th, 1875.

Very closely allied to *Botys (Samea) ebulealis*, Gn., Delt. & Pyr., 196, 136, but with only the yellow fascia beyond the exterior line reaching the costa. Also akin to *Botys matutinalis*, Gn., and *B. adipalis*, Ld., but much smaller than either.

97. *Hapalia pallidipennis*, n. s.

Fore wings semihyaline, whitish, with a faint yellowish tinge, with the costa concisely and the hind margin broadly and diffusely bronzy grey; the lines brownish; the first curved, the exterior slightly denticulated, but not bulging outwards in the middle of its course as in *B. detritalis*. A very strong brown lunular mark on the disco-cellular, and a minute dot immediately beyond the first line representing the orbicular stigma. Hind wings like the fore wings, bronzy grey along the hind margin, with a distinct central brown spot, and the exterior line of the fore wings repeated. All the fringes with a bright line at their base, followed by a darker one, beyond which they are lighter, and in the hind wings white. Head, thorax, abdomen, and legs whitish ochreous; abdomen with a darker ochreous anal tuft, the last segment wholly blackish above, the two preceding segments blackish only at the sides; the second segment with a black dot above. Under side of the abdomen glossy white. Expanse of wings, 25 mm.

One ♂, from R. Jurua, Nov. 7th, 1874.

Very closely related to *B. detritalis*, Gn., but purer white, without the yellowish colouring; also to *B. rhipheusalis*, Wlk., from Borneo.

98. *Hapalia sublutalis*, n. s.

Wings greyish ochreous, with a pale bronzy or purplish tinge; semihyaline; the ochreous scaling denser along the costa, inner margin, and hind margin, the latter also greyer; fringes concolorous, shining. There are no clear markings of any kind, but a short basal and a curved exterior line are sometimes faintly perceptible, and there is a darkening above the disco-cellular, but not a distinct spot. Head, thorax, abdomen, and legs ochreous, glossy; in the ♂ the anal tuft contains some darker hairs. Under side without markings, glossy ochreous-grey. Expanse of wings, 33 mm.

Six examples. Three males and three females; the

former from Cachocirimbo, R. Madeira, May 17th, Itatoro, R. Madeira, June 2nd, and Pupunha, Nov. 11th, 1874; the latter from R. Madeira, May 16th, R. Jurua, Nov. 7th, and R. Javary, Dec. 6th, 1874.

The species bears great superficial resemblance to *Botys illutalis*, Gn., but the eyes and legs are not dashed with white, nor have the wings a submarginal dark line; besides which the palpi are curved, ascending, not porrected. In this respect it approaches *B. belialis*, Wlk., from Villa Nova, but that is more yellowish, and has white legs.

There is also an unnamed example in the British Museum Collection from Espiritu Santo.

99. *Hapalia pactolalis*.

Botys pactolalis, Gn., Delt. & Pyr., 346, 403.

Seven examples, all males. Three from R. Madeira, May 17th, 21st, and 24th, 1874; one from R. Marmellos, a tributary of R. Madeira, June 1st; one from Itatoro, also on R. Madeira, June 2nd; one from Curimata, on R. Jurua, Oct. 30th; and one from the same river, Nov. 3rd.

Guenée's types came from Guadaloupe. There are no examples in the British Museum Collection.

100. *Hapalia inanitalis*.

Botys inanitalis, Ld., W. E. M., vii., pp. 371, 460, pl. 9, fig. 3.

One ♀, from Mabidiry, R. Purus, Sept. 30th, and another from Gaviao, R. Jurua. Nov. 10th, 1874.

Lederer gives Amboina, in the East Indies, as habitat; so that, if the identification be correct, the species must be one of wide distribution.

101. *Hapalia damonalis*.

Botys damonalis, Wlk., Cat. Lep. Het. B. M., xviii., p. 617.

One ♀, from Caruraucu, April 18th, 1874.

The types in the Saunders' collection are from Villa Nova.

102. *Hapalia elathealis*.

Botys elathealis, Wlk., Cat. Lep. Het. B. M., xviii., p. 615.

Three females. One from Aramia, R. Purus, Oct. 4th, the others from the R. Jurua, Oct. 31st, and Nov. 26th, 1874.

Walker's type, in Mr. Saunders' collection, also came from the Amazons district.

103. *Hapalia sylvialis*.

Botys sylvialis, Wlk., Cat. Lep. Het. B. M., xviii., p. 615.

One ♀, from Serpa, April 22nd, 1874.

The type, in Mr. Saunders' collection, came from Brazil.

104. *Hapalia vitrealis*, n. s.

Wings white, diaphanous, with the veins darker. Expanse of wings, 36 mm.

Two males. R. Jutahi, Jan. 24th, 1875; Feb. 5th, 1875.

105. *Hapalia flavidensalis*, n. s.

Fore wing rather glossy, densely scaled; deep yellow, rather darker or more densely scaled along the costa and hind margin; the veins slightly darker; the curved inner line and denticulate outer line, together with the reniform stigma, only just discernible; hind wing paler, with only the hind margin yellow, and a very faint trace of a submarginal line. Head, thorax, and abdomen yellowish ochreous; palpi very short; middle tibiæ largely developed, broadly white laterally. Under side pale shining yellow; the fore wing with both stigmata clearly marked; *fringes all yellow*. Expanse of wings, 35 mm.

One ♀. Gepatiny, R. Purus, Sept. 30th, 1874.

106. *Hapalia expansalis*.

Botys expansalis, Ld., W. E. M., vii., pp. 376, 474, pl. 11, fig. 12.

? *B. opalisans*, Feld., Reise Nov., pl. 135, fig. 28.

Fore wing pale yellowish brown towards the base and along the inner margin, darker brown with a slight iridescent purplish

tinge towards the hind margin; the costa, especially along the centre of the wing, broadly ochreous-yellow; a black transverse line close to the base; a second nearly straight before the middle, starting from a black spot on the costa, which interrupts the pale costal streak; the exterior line also starting from a black costal spot, curving outwards for one-third, then forming three teeth, running in basewards along the first median branch, and then reaching the inner margin as a broader curve; orbicular stigma brown edged with darker, quadrangular in shape, with a minute whitish spot between it and the second line; under it another roundish brown spot, also preceded by a paler one; reniform stigma kidney-shaped, with dark margin and ochreous centre, followed by two whitish patches; between the two stigmata, and also broadly below them, the wing is pale ochreous-white, semi-hyaline; the exterior line is followed by two subcostal oval patches of the same colour, one beneath the other, and is edged with paler throughout its course between each vein. Fringe glossy grey, chequered with darker, with a paler basal line, which is itself preceded by a row of nearly contiguous dark dashes. Hind wing rather sparsely scaled, fuscous, with the costa pale; a central dark dash and an indistinct denticulate submarginal line; fringes as in fore wing. Under side glossy, pale straw-colour, with all the markings neatly and darkly conspicuous. Palpi ochreous with the tips of all three joints dark brown. Thorax, patagia, and abdomen greyish ochreous; abdominal segments whitish; the penultimate and ante-penultimate segments with a streak of black. Legs ochreous; the fore legs with dark brown spots at the joints of the tibiæ and tarsi. Antennæ finely pubescent.

Two males. R. Madeira, May 16th, 1874.

Lederer's description is from a ♀, habitat unknown. As the sexes appear to differ slightly, and a few points are not noticed by Lederer, I have given a full description of the ♂. Felder's figure of *B. opalisans*, from St. Domingo, may possibly also be intended to represent the present species.

107. *Anania florella*.

Phalæna Tinea florella, Cram., Pap. Exot., iv., p. 114, pl. 348, fig. 4.

Syngamia florellalis, Gn., Delt. & Pyr., 187, 118.

Anania quinqualis, Hüb., Zutr., iii., 27, 176, figs. 351, 352.

One female and three males. The female from R. Madeira, May 26th, 1874; the males from R. Madeira, May 26th, Serpa, April 22nd, R. Manhes, May 2nd, 1874.

108. *Hyalea aurantiacalis*, n. s.

Wings bright orange; fore wings with the costa and hind margin narrowly bronzy purple, and a straight fascia beyond the middle and wider on the costa of the same colour; this fascia contains a spot of the yellow ground colour just below the costa, and a smaller one on the inner margin; also at the base of the bronze costal streak is a small yellow dash; a minute bronzy spot lies contiguous to the costal streak in the middle. Hind wing with a broad curved bronzy border, traversed throughout by a narrow yellow band. Head, thorax, and abdomen yellow, the latter with the penultimate segment and one or two rings before it dark. Under side yellow, with all the markings reproduced; the costal dot is isolated; sides of the tibiæ bronzy fuscous. Expanse of wings, 18 mm.

Two males near Porto Salvo, R. Purus, Oct. 3rd, 1874, and one male at Gepatiny, R. Purus, Sept. 26th, 1874; all at light.

109. *Epichronistis* (?) *albiguttalis*, n. s.

Fore wing yellow, tinged with brown at the base, along the costa, and hind margin; a brown nearly vertical line near the base, preceded by a faint whitish spot; a brown, double-curved, submarginal line running inwards along the first median branch, and curving again into the inner margin just beyond the middle; this line is edged externally by a series of semicircular white blotches lying between the veins, which are followed by a brown shade that fades away into the yellow ground colour before the fringes; the three stigmata all large, roundish, distinct, brown-edged; a white spot between the orbicular and reniform stigmata. Hind wing yellow, without any brown suffusion; with the submarginal line exactly reproduced, and with a large brown central spot. Under side shining whitish, with the markings showing through. Head and thorax pale yellowish; abdomen darker yellow, the incisions of the segments whitish. Extreme tip of the palpi brown. Fringes of both wings, as far as can be made out, yellowish spotted with brown. Expanse of wings, 20 mm.

Three females. One from Boa Vista, one from Pariti, Oct. 5th, 1874, and one from Guajaratuba, Sept. 12th, 1874; all on R. Purus.

STENIADÆ.

110. *Crochiphora testulalis*.

Crochiphora testulalis, Hüb. (Geyer), Exot. Schm., iv., 12, 315, figs. 629, 630.

Stenia testulalis, Gn., Delt. & Pyr., 247, 230.

S. testulalis, Wlk., Cat. Lep. Het. B. M., xvii., p. 420.

Maruca aquatilis, Wlk., Cat. Lep. Het. B. M., xvii., p. 540.

Siriocauta testulalis, Ld., W. E. M., vii., p. 424.

Eighteen specimens, of which fourteen vary more or less in one particular from the examples in the British Museum Collection, having the orbicular stigma elongated and amplified, so as almost to touch the smaller spot beneath. In the other four specimens, and in those in the British Museum Collection, the orbicular stigma is truncated basewards, and separated from the smaller spot by an appreciable interval of dark ground colour. The costa of the hind wing is dark, with two black spots, and there is a single wavy-brown transverse line across the centre. Lederer omits to mention either of these points in his description of *Siriocauta testulalis*, but as he calls the hind wings and the hyaline patches of the fore wings *pale yellow*, his specimen was in all probability greasy, and the markings more or less effaced.

The species appears to be of general distribution: coming from the Punjaub and Ceylon in India; from Borneo; from the Congo, in Africa; from Moreton Bay, in Australia; and from a variety of localities in South America.

Of the eighteen specimens contained in the Collection, sixteen are females. One male and one female from Aveiros, March 14th and 17th; one female from Faro, April 10th; seven females from R. Madeira, May 24th and 26th; one female from San Bonté, R. Negro, June 16th; five females from R. Jurua, Oct. 23rd, 24th, and 29th; one male from R. Javary, Nov. 30th; one female from Santarem, Feb. 2nd, 1875. In these fresh specimens the markings of the under side are much more vivid, and the hyaline patches iridescent pinkish.

111. *Sozoa obscura*, n. s.

Fore wing rather shining, dingy grey, without any markings, except an obscure dark spot at the end of the cell; hind wing a little darker; fringes concolorous; head, thorax, and abdomen grey; legs paler; under side of abdomen paler; pectus silvery white; under side of wings shining grey, with an indistinct dark central spot on each, and a curved exterior line. Expanse of wings, 20 mm.

One ♂. Pupunha, R. Jurua, Nov. 5th, 1874.

The only other species at present named is Walker's original type, *Sozoa costalis*, from Bogota and Venezuela, which in appearance mimics a *Margaronia*; there is a third species in the British Museum Collection unnamed from Espiritu Santo, which superficially very much resembles Lederer's *Bradina selectalis*, from Amboina. So, too, the present species must be very much like *Hymenoptychis sordida*, Z., from Caffraria; but the structure of the antennæ and the neurulation are quite different.

112. *Blepharomastix colubralis*.

Stenia colubralis, Gn., Delt. & Pyr., 242, 216.

S. colubralis, Wlk., Cat. Lep. Het. B. M., xvii., p. 418.

Botys electralis, Wlk., ib., xviii., p. 601.

One ♂ from Pupunha, R. Jurua, Nov. 5th, 1874; one ♂ from Lake Arapecu, R. Trombetas, March 2nd, 1874.

Guenée's types of *S. colubralis* were from Cayenne, Walker's, of *B. electralis*, from Ega.

LEPTOSTEGES, n. g.

Fore wing nearly three times as long as broad; costa slightly convex throughout; hind margin oblique; anal angle rounded off; hind wing also narrow, with both angles rounded off. Scaling of wings thick and coarse, not glossy; markings alike on both. Eyes large; antennæ of the ♂ smooth above and pale, beneath with each joint angularly produced, and finely but densely ciliated throughout with brownish hairs. Palpi porrected, slightly ascending, clothed with diffuse rough hairs, which entirely conceal the joints, as in *Cledeobia*. Maxillary palpi slight, feathery; tongue feeble; legs long; first joint of the tarsi of the fore legs thickly clothed with dark hairs. Insects of small and delicate build. Neurulation: Fore wing with the interno-median fold strongly expressed

throughout, running parallel to the submedian into the hind margin above the anal angle; the disco-cellular angulated, so that the end of the cell is wedge-shaped; first median branch from the middle of the wing; second from the lower angle of the cell; third and fourth from the angle of the disco-cellular; second and third subcostal branches short, out of the fourth, which ends in the apex; fifth and radial from the upper angle of the cell. Hind wing with the cell remarkably short, the end wedge-shaped; first median branch a little before the end, second from the lower angle, third and fourth from the angle of the disco-cellular; subcostal branch from the upper angle; costal free, with two branches.

113. *Leptosteges pulverulenta*, n. s.

Fore wing whitish, diffusely dusted with brownish atoms, especially beyond the second line; with two transverse brown lines; the first at one-third, curved, and somewhat indistinct; the second distinct, broad, straight, running obliquely from the costa before the apex to the anal angle; costa brown half-way from the base. Hind wing white, with the markings of the fore wing repeated, but the first line represented only by a small brown dash, the second strongly expressed, the brown dusting beyond it still thicker than in the fore wing. Fringes whitish, dotted with brown. Head, thorax, and abdomen whitish; palpi brown; antennæ whitish above, but brownish underneath; legs whitish, but the fore tarsi brown outside. Under side whitish; in the fore wing more or less suffused with pale brown. Expanse of wings, 16 mm.

One ♂ with the date and locality obliterated.

A small and delicate species, quite unlike any other in the scaling and markings.

ASOPIADÆ.

114. *Asopia acestealis*.

Samea acestealis, Wlk., Cat. Lep. Het. B. M., xvii., p. 352.

Salbia phærusalis, Wlk., ib., xvii., 368.

One ♀, R. Javary, Dec. 3rd, 1874, and one ♂, Araras, Nov. 15th.

Walker's two types, both males, are from St. Domingo; another example in the British Museum Collection from Espiritu Santo, also a ♂, agrees with them. The two specimens above recorded are paler and clearer yellow, the dark shading being less expressed.

Asopia moninalis, Wlk., from Borneo, is a closely-allied form; and *Samea medealis*, Wlk., from St. Domingo, and *Samea commixta*, Butler, from Japan, must also belong to the same genus.

115. *Pterygismus flavalis*, n. s.

Fore wings straw-colour, with bright fulvous or orange shading, and dark fuscous lines; an orange fascia close to the base, dark grey on the costa; a fulvous fascia before the middle, followed by a double blackish transverse line; a black-edged pale streak from the costa, pointing towards the anal angle, before the apex, and a pale dark-edged reniform mark; submarginal line dark, parallel to the hind margin, followed by a fuscous marginal band before the fulvous fringes, which have a dark basal line. Hind wings with the markings of the fore wings repeated and intensified, the fulvous and dark markings being all more distinct. Head, thorax, and abdomen ochreous, mottled with yellowish, the latter ringed with yellow. Expanse of wings, 12 mm.

Three females from R. Jutahi, Jan. 21st, and Feb. 4th, 1875.

Akin to Guenée's *P. ochropteralis*, Delt. & Pyr., 230, 250, or possibly identical; but Guenée's description was made from one imperfect specimen.

116. *Synclita gurgitalis*.

Synclita gurgitalis, Ld., W. E. M., vii., pp. 449, 483, pl. 17, fig. 17, ♂.

S. modestalis, Ld., ib., pl. 18, fig. 1, ♀.

A single ♂ from Lages, mouth of R. Negro, Aug. 4th, 1874.

117. *Voliba major*, n. s.

Fore wing pale ochreous, rather glossy, with three dark lines, two simply curved; one close to the base, the second a little beyond; the third post-median forms first a bracket-shaped mark thus } nearly reaching the anal angle, then a double curve basewards, the upper convexity touching the lower end of the reniform stigma, and finally another angle like the first before it reaches the inner margin about the middle. Reniform stigma outlined with brown; marginal line brown. Hind wing with the reniform stigma and curved external line reproduced. Head, thorax, and abdomen ochreous. Expanse of wings, 18 mm.

One ♂. Ilha Cuxinara, R. Solimoes, Oct. 13th, 1874.
Evidently closely allied to *Voliba scoparialis*, Wlk., Cat. Lep. Het. B. M., xxxv., 1983 = *Gabrisa scoparialis*, Wlk., ib., xxxiv., 1266. Walker himself altered the generic name, having already used *Gabrisa* for another genus. His type of *G. scoparialis* is from Sydney.

HYDROCAMPIDÆ.

118. *Aulacodes æschmialis*.

Aulacodes æschmialis, Gn., Delt. & Pyr., 258, 243.

One ♀ from Urucuri, R. Purus, Oct. 2nd, 1874; two females and one male from R. Jutahi, Feb. 5th, 1875.

Guenée's types were from Cayenne.

119. *Hydrocampa tortalis*.

Hydrocampa tortalis, Ld., W. E. M., vii., pp. 432, 484, pl. 18, fig. 3.

One ♂, from R. Javary, Dec. 3rd, 1874.

One of the smallest species of the genus.

120. *Paraponyx distinctalis*.

Paraponyx distinctalis, Snellen, Tijd. v. Ent., 1875, p. 261, pl. 14, fig. 14.

One ♀, from Manaos, June 13th, 1874.

Marking for marking the species is like (*Oligostigma*) *Paraponyx pallida*, Butler, from Rockhampton, but is only half the size.

121. *Paraponyx flavimarginalis*, n. s.

Fore wings fuscous, paler along the costa, with a narrow, indistinct, pale discal streak, elbowed near the anal angle, and thence whiter to the middle of the inner margin; followed by a fuscous fascia, which becomes narrowed towards the anal angle, and is there suffused with yellow; a yellow marginal streak, continued beyond the anal angle, finely edged internally with fuscous, and preceded by a narrower white streak. Fringes with two narrow dark parallel lines. Hind wings broadly dark fuscous at the base, with a broad white central transverse fascia, followed by a fuscous fascia shot with yellow, and altogether yellow at each end, separated by a narrow white band from the yellow marginal fascia; fringes with two fine dark parallel marginal lines, forming below the apical angle, the inner one three arrow-headed marks, the

outer three black spots. Under side pale, all the markings showing through. Head and thorax fuscous; abdomen and legs pale ochreous. Expanse of wings, 22 mm.

One ♀, from Barreira branca, R. Jutahi, Feb. 3rd, 1875.

122. *Cataclysta trilinealis*, n. s.

Fore wings with a pale ground, which is almost entirely suffused with brown atoms and fulvous shading, by which all the usual markings are more or less lost. We can discern a central dark fascia through both wings; a yellow streak along the hind margin preceded by a *leaden* streak, and that again by another tawny one; a tawny spot at the anal angle. In the hind wings, before the marginal row of steel spots, are three curved parallel black lines, and the centre of the wing is sprinkled with lustrous scales. Expanse of wings, 16 mm.

Six females. One from Prainha, Nov. 14th, 1873; one from Aveyros, March 11th, 1874; two from Faro, April 10th, one from Sapucaia Croca, R. Madeira, May 15th, one from Lages, mouth of R. Negro, Aug. 4th, 1874.

123. *Cataclysta divisalis*.

Cataclysta divisalis, Wlk., Cat. Lep. Het. B. M., xxxiv., p. 1336.

Three specimens, all females. Two from Aveyros, June 11th, 1874, and March 11th, 1875; the third from Prainha, Nov. 14th, 1873.

The single example from which Walker describes the species came from Para, from Mr. Bates's collection.

124. *Cataclysta callistoalis*.

Cataclysta callistoalis, Wlk., Cat. Lep. Het. B. M., xvii., p. 442.

One ♂, from R. Jurua, Nov. 7th, 1874.

CHOREUTIDÆ.

125. *Simæthis amatana*.

Simæthis amatana, Wlk., Cat. Lep. Het. B. M., xxviii., p. 451.

One ♂. Ilha das Araras, R. Madeira, June 4th, 1874.

The North American genus *Brenthia*, Clemens, should certainly be placed among the *Choreutidæ*.



Warren, William. 1889. "VIII. On the Pyralidina collected in 1874 and 1875 by Dr. J. W. H. Trail in the Basin of the Amazons." *Transactions of the Entomological Society of London* 37, 227–295.

<https://doi.org/10.1111/j.1365-2311.1889.tb02321.x>.

View This Item Online: <https://www.biodiversitylibrary.org/item/50992>

DOI: <https://doi.org/10.1111/j.1365-2311.1889.tb02321.x>

Permalink: <https://www.biodiversitylibrary.org/partpdf/4374>

Holding Institution

Smithsonian Libraries and Archives

Sponsored by

Smithsonian

Copyright & Reuse

Copyright Status: Public domain. The BHL considers that this work is no longer under copyright protection.

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.