

Chiriqui (*Ribbe, in mus. Staudinger*), Volcan de Chiriqui 2000 to 3000 feet (*Champion*).
—BRAZIL.

14. **Eudioptis exclusalis.** (Tab. LXI. fig. 30.)

Phakellura exclusalis, Walk. Cat. xxxiv. p. 1361¹.

Hab. MEXICO, Teapa in Tabasco (*H. H. Smith*); GUATEMALA, Volcan de Atitlan 2500 to 3500 feet (*Champion*); PANAMA, Chiriqui (*Arcé, in mus. D.*), Volcan de Chiriqui 2000 to 3000 feet (*Champion*).—COLOMBIA, Bogota¹; ECUADOR.

The type of this species is now in my own collection. An example from the Volcan de Chiriqui is figured.

15. **Eudioptis fumosalis.**

Phakellura fumosalis, Guen. Sp. gén. des Lép. viii. p. 300¹; Walk. Cat. xviii. p. 512².

Phacellura fumosalis, Leder. Wien. ent. Monats. vii. p. 401³.

Phacellura finalis, Leder. loc. cit. t. 13. fig. 16⁴.

Hab. MEXICO, Orizaba (*Boucard, in mus. D.*), Jalapa (*M. Trujillo, Schaus*); GUATEMALA (*Conradt, in mus. Staudinger*); COSTA RICA, Volcan de Irazu 6000 to 7000 feet, Rio Sucio (*Rogers*).—VENEZUELA³; ECUADOR; ? BRAZIL².

The specimens before me are paler than Lederer's figure, but I have little doubt that they belong to his species. The locality was unknown to Guenée¹.

16. **Eudioptis satanalis** (?).

Phakellura satanalis, Snell. Tijdschr. voor Ent. xviii. p. 231, t. 13. fig. 6¹.

Hab. PANAMA, Chiriqui (*Ribbe, in mus. Staudinger*).—COLOMBIA, Magdalena River¹, Bogota.

One specimen from Chiriqui, very similar to others from Bogota in my own collection. None of these examples are so red as shown in Snellen's figure.

LYPOTIGRIS.

Lypotigris, Hübner, Verz. bek. Schmett. p. 361 (1816).

Hyalitis, Groupe I., Guenée, Sp. gén. des Lép. viii. p. 289 (1854).

The type of this genus is *Phalæna Pyralis reginalis*, Cram.; it is the only known species belonging to it.

1. **Lypotigris reginalis.**

Phalæna Pyralis reginalis, Cram. Pap. Exot. iv. p. 163, t. 372. fig. C¹.

Lypotigris reginalis, Hübner, Verz. bek. Schmett. p. 361².

Hyalitis reginalis, Guen. Sp. gén. des Lép. viii. p. 290³; Leder. Wien. ent. Monats. vii. p. 403⁴.

Lypotigris reginalis, Walk. Cat. xvii. p. 495⁵.

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Hab. MEXICO, Orizaba (*Boucard, in mus. D.*), Jalapa (*M. Trujillo, Schaus*), Cuesta de Misantla, Omealca (*M. Trujillo*); GUATEMALA, in the city (*Rodriguez*); HONDURAS (*Wittkugel, in mus. Staudinger*); COSTA RICA, Candelaria Mts. (*Underwood*); PANAMA, Volcan de Chiriqui (*Champion*).—GUIANA, Surinam ^{1 5}, Cayenne ^{3 4}; ANTILLES, San Domingo ⁵, Haiti.

This fine species is not uncommon in Eastern Mexico; from Guatemala we have received three specimens only. An example from Haiti in my own collection is much smaller than any of the others before me. The male is well figured by Cramer.

HYALITIS.

Hyalitis, Groupe II., Guenée, Sp. gén. des Léop. viii. p. 289 (1854); Lederer, Wien. ent. Monats. vii. p. 403 (part.).

1. *Hyalitis bajulalis*.

Hyalitis bajulalis, Guen. Sp. gén. des Léop. viii. p. 291 ¹; Leder. Wien. ent. Monats. vii. p. 403 ².

Lypotigris (?) *bajulalis*, Walk. Cat. xvii. p. 495 ³.

Glyphodes (?) *dermatialis*, Feld. & Rogenh. Reise der Novara, Lep. t. 136. fig. 23 ⁴.

Hab. GUATEMALA, Volcan de Atitlan 2500 to 3500 feet, Zapote (*Champion*); COSTA RICA, Caché (*Rogers*), Candelaria Mts. (*Underwood*); PANAMA, Chiriqui (*Arcé, in mus. D.*; *Trötsch, in mus. Staudinger*).—GUIANA ⁴, Cayenne ^{1 2 3}; ECUADOR.

GLYPHODES.

Glyphodes, Guenée, Sp. gén. des Léop. viii. p. 292 (1854); Walker, Cat. xvii. p. 496; Lederer, Wien. ent. Monats. vii. p. 401.

1. *Glyphodes sibillalis*.

Glyphodes sibillalis, Walk. Cat. xvii. p. 506 ¹; Leder. Wien. ent. Monats. vii. p. 402 ².

Hab. MEXICO, Jalisco (*Schumann*), Jalapa (*M. Trujillo*), Rinconada in Vera Cruz (*Schaus*); COSTA RICA, Volcan de Irazu 6000 to 7000 feet, Rio Sucio (*Rogers*), Candelaria Mts. (*Underwood*).—COLOMBIA; VENEZUELA ^{1 2}; ECUADOR; AMAZONS, Ega ¹; BRAZIL; ANTILLES, San Domingo ¹, Dominica.

A common insect in Central America.

DICHOGAMA.

Dichogama, Lederer, Wien. ent. Monats. vii. p. 396 (1863).

This genus contains a single species, the sexes of which are very dissimilar.

1. *Dichogama redtenbacheri*.

Dichogama redtenbacheri, Leder. Wien. ent. Monats. vii. p. 396, t. 13. figg. 10 (♂), 11 (♀) ¹.

Hab. MEXICO, Paso de San Juan in Vera Cruz (*Schaus*).—PERU; ANTILLES, St. Thomas ¹.

A female captured by Mr. Schaus in Mexico is the only specimen I have seen of this species. It differs from Lederer's figure in having the apex of the secondaries not marked with black. Mr. Schaus informs me that he also possesses specimens from Peru, which are considerably larger than the Mexican example.

CLINIODES.

Cliniodes, Guenée, Sp. gén. des Léop. viii. p. 300 (1854); Walker, Cat. xviii. p. 517; Lederer, Wien. ent. Monats. vii. p. 396.

Idessa, Walker, Cat. xix. p. 979 (1859).

1. *Cliniodes opalalis*. (Tab. LXII. fig. 1.)

Cliniodes opalalis, Guen. Sp. gén. des Léop. viii. p. 301¹; Walk. Cat. xviii. p. 518²; Leder. Wien. ent. Monats. vii. p. 397³.

Idessa pyrgionalis, Walk. Cat. xix. p. 980⁴.

Hab. NORTH AMERICA^{1 2 3}.—MEXICO, Vera Cruz (*Sallé*⁴), Jalapa (*M. Trujillo*), Atoyac in Vera Cruz (*Schumann*), Paso de San Juan in Vera Cruz (*Schaus*).—ANTILLES, Jamaica⁴.

I have seen four specimens of this species from Mexico; the sexes are very similar. An example from Atoyac is figured.

2. *Cliniodes cyllarusalis*, sp. n. (Tab. LXI. figg. 31, ♂; 32, ♀.)

Male. Primaries and secondaries pearly-white; the primaries with the costal and outer margins, and a row of small spots partly crossing the wing, pale brown, and with a brown spot at the end of the cell extending to the costal margin, the fringe brown; the secondaries with the marginal line brown, the fringe white; the underside very much as above: head and thorax white, the abdomen dark grey banded with white, the anal tuft blackish, the legs greyish-white.—*Female*. Very similar to the male; the primaries with two blackish-brown spots on the inner margin, the costal margin reddish-brown, and the row of spots rather more distinct; the secondaries with the marginal line almost white. Expanse, ♂ $1\frac{1}{10}$, ♀ $1\frac{1}{2}$ inch.

Hab. MEXICO, Paso de San Juan and Rinconada in Vera Cruz (*coll. Schaus*); GUATEMALA, in the city (*Rodriguez*).

Three specimens. This species is allied to *C. opalalis*, Guen. We figure a male from Mexico, and a female from Guatemala city.

CARBACA.

Carbaca, Walker, Cat. xxxiv. p. 1379 (1865).

The type of this genus is *C. decoralis*, Walk., from San Domingo. A second species is now added.

1. *Carbaca prognealis*, sp. n. (Tab. LXII. fig. 2.)

Primaries pearly-white, with a large yellow patch at the anal angle, extending partly along the inner margin, but not reaching the base, a series of four glossy-bluish-black bands extending across the wing from the

costal margin as far as the yellow colour, and a small round black spot at the anal angle, the inner margin edged with black near the base, the fringe partly white and partly yellow; secondaries semihyaline pale yellowish-white, the fringe yellow: head, thorax, and legs white, the antennæ black; the abdomen yellowish-white, white at the base, the anal tuft brownish-yellow. Expanse $1\frac{4}{10}$ inch.

Hab. COSTA RICA, Candelaria Mts. (*Underwood*).—ECUADOR, Sarayacu (*Buckley*).

HYALEA.

Hyalea, Guenée, Sp. gén. des Léop. viii. p. 206 (1854); Walker, Cat. xvii. p. 375; Lederer, Wien. ent. Monats. vii. p. 434.

1. *Hyalea delilalis*.

Hyalea delilalis, Walk. Cat. xvii. p. 376¹.

Botys atyrialis, Feld. & Rogenh. Reise der Novara, Lep. t. 135. fig. 30².

Hab. COSTA RICA (*Trötsch*, in *mus. Staudinger*).—COLOMBIA, Bogota; AMAZONS², Ega¹.

I have seen four specimens of this species, including one from Costa Rica in Dr. Staudinger's collection.

MECYNA.

Mecyna, Guenée, Sp. gén. des Léop. viii. p. 406 (1854); Walker, Cat. xix. p. 804.

1. *Mecyna deprivalis*.

Mecyna deprivalis, Walk. Cat. xix. p. 806¹; Moore, Lep. Ceylon, iii. p. 352, t. 179. figg. 1, 1a (larva and pupa)².

Hab. MEXICO (*Boucard*, in *mus. D.*), Durango city (*Becker*), Amula in Guerrero (*H. H. Smith*).—CEYLON^{1 2}; INDIA.

Mexican specimens are similar to those from India. *M. deprivalis* varies in colour, and also in the extent of the black margin of the secondaries.

AGATHODES.

Agathodes, Guenée, Sp. gén. des Léop. viii. p. 207 (1854); Walker, Cat. xvii. p. 377.

Stenurges, Lederer, Wien. ent. Monats. vii. p. 416 (1863).

1. *Agathodes monstrialis*. (Tab. LXII. fig. 5, ♂.)

Agathodes monstrialis, Guen. Sp. gén. des Léop. viii. p. 209¹; Walk. Cat. xvii. p. 377².

Stenurges monstrialis, Leder. Wien. ent. Monats. vii. p. 417³.

? *Agathodes designalis*, Guen. Sp. gén. des Léop. viii. p. 209⁴.

Hab. NORTH AMERICA^{1 3 4}, United States².—MEXICO, Jalapa, Cuesta de Misantla (*Höge*, *M. Trujillo*), Rinconada in Vera Cruz (*Schaus*); GUATEMALA, Dueñas (*Champion*); COSTA RICA, Volcan de Irazu 6000 to 7000 feet (*Rogers*), Candelaria Mts. (*Underwood*).—COLOMBIA; ECUADOR; BRAZIL⁴; ANTILLES, San Domingo².

A common species in Tropical America. The very large series before me does not

show any variation of importance. Some specimens are more highly coloured than others, especially those from Ecuador. An example from Jalapa is figured.

SYNCLERA.

Synclera, Lederer, Wien. ent. Monats. vii. p. 444 (1863).

1. *Synclera traducalis*.

Eudiotis traducalis, Zell. Kongl. Sv. Vet.-Ak. Handl. 1852, p. 54¹.

Synclera traducalis, Leder. Wien. ent. Monats. vii. p. 444²; Walk. Cat. xxxiv. p. 1367³; Moore, Lep. Ceylon, iii. p. 316, t. 182. fig. 9 (♀)⁴.

Spilomela retinalis, Leder. Wien. ent. Monats. i. p. 100⁵.

Glyphodes univocalis, Walk. Cat. xvii. p. 499⁶.

Samea jarbusalis, Walk. Cat. xvii. p. 352⁷.

Zebronia (?) *cottalis*, Walk. Cat. xix. p. 964⁸.

Hab. MEXICO, Jalapa (*Höge*), Teapa in Tabasco (*H. H. Smith*); GUATEMALA, San Gerónimo (*Champion*); COSTA RICA, Volcan de Irazu 6000 to 7000 feet (*Rogers*), Candelaria Mts. (*Underwood*); PANAMA, Volcan de Chiriqui 2000 to 3000 feet (*Champion*), Chiriqui (*Ribbe, in mus. Staudinger*).—ECUADOR; ANTILLES, San Domingo^{7 8}.—SYRIA^{2 3 5}; EAST INDIES²; CEYLON^{4 6}; CAFFRARIA^{1 2 3}.

I cannot separate the American specimens from the Indian ones, and the above names all refer to one very widely distributed species.

AGROTERA.

Agrotera, Schrank, Fauna Boica, ii. 2, p. 163 (1802); Walker, Cat. xvii. p. 386; Lederer, Wien. ent. Monats. vii. p. 439.

1. *Agrotera preciosalis* (?).

Leucinodes (?) *preciosalis*, Möschl. Verh. zool.-bot. Ges. Wien, 1881, p. 431, t. 18. fig. 38¹.

Hab. COSTA RICA, Candelaria Mts. (*Underwood*).—GUIANA, Paramaribo¹.

Two specimens from Costa Rica are apparently referable to this species; they differ from Möschler's figure in having the bands on the primaries straighter.

2. *Agrotera marucalis*, sp. n. (Tab. LXII. fig. 3, ♂.)

Male. Primaries and secondaries pale cream-colour, crossed from the costal to the inner margin by a series of dark brown waved lines, a large V-shaped brown mark on the inner margin of the secondaries, the marginal line dark brown: head, thorax, and abdomen cream-colour, each segment of the latter edged with dark brown.—*Female* very similar to the male. Expanse $\frac{3}{4}$ inch.

Hab. MEXICO, Jalapa (*M. Trujillo*).

Numerous examples.

3. *Agrotera calanticalis*, sp. n. (Tab. LXII. fig. 4.)

Primaries and secondaries pale yellow; the primaries crossed from the costal to the inner margin by three narrow curved brown bands—the first near the base, the second at the end of the cell, and the third

submarginal, the latter indistinct near the anal angle,—the marginal line brown, the fringe yellow; the secondaries crossed about the middle by a narrow brown line, which extends from the costal margin to the anal angle, a short brown line partly crossing the wing above the apex, the marginal line brown, the fringe yellow; the underside paler than above, and without the brown lines: head, thorax, and abdomen pale yellow, the legs yellowish-white, the antennæ pale brown. Expanse 1 inch.

Hab. COSTA RICA, Santa Clara Valley 1200 feet (*Zürcher*).

4. *Agrotera darsanalis*, sp. n. (Tab. LXII. fig. 6.)

Male. Primaries and secondaries white, crossed from the costal to the inner margin with very fine brown lines—the first two near the base, the others beyond,—the primaries with a dark spot on the middle of the costal margin, the fringe white; the underside very much as above, but with the lines rather more distinct: head, thorax, abdomen, and legs white, the antennæ pale brown. Expanse $\frac{3}{4}$ inch.

Hab. MEXICO, Jalapa (*M. Trujillo*); PANAMA, Chiriqui (*Trötsch, in mus. Staudinger*).

The Chiriqui specimen is darker than the one from Jalapa; the latter is figured.

PTERYGISUS.

Isopteryx, Guenée, Sp. gén. des Lép. viii. p. 227 (1854) (nomen præocc.); Lederer, Wien. ent. Monats. vii. p. 449.

Physematia, Meyrick, Trans. Ent. Soc. Lond. 1886, p. 257 (Oct.) (? nec Lederer).

Pterygisus, Butler, op. cit. p. 429 (Dec.).

1. *Pterygisus* (?) *contractalis*.

Pyrallis (?) *contractalis*, Walk. Cat. xxxiv. p. 1230¹.

Hab. HONDURAS, Limas¹.

2. *Pterygisus fœdalis*.

Isopteryx fœdalis, Guen. Sp. gén. des Lép. viii. p. 228, Delt. et Pyral. t. 4. fig. 7¹; Walk. Cat. xvii. p. 402²; Leder. Wien. ent. Monats. vii. p. 449³.

Pterygisus fœdalis, Snell. Trans. Ent. Soc. Lond. 1890, p. 638⁴.

Isopteryx tenellalis, Guen. Sp. gén. des Lép. viii. p. 228⁵.

Physematia epispila, Meyr. Trans. Ent. Soc. Lond. 1886, p. 257⁶.

Hab. PANAMA, Chiriqui (*Ribbe, in mus. Staudinger*).—SOUTH AMERICA, Cayenne⁵.—FIJI⁶; INDIA^{1 2 3}.

One example from Chiriqui, identified by Dr. Staudinger. It closely resembles specimens from Darjeeling in my own collection. The synonymy is given on the authority of Snellen⁴.

3. *Pterygisus appialis*, sp. n. (Tab. LXII. fig. 7.)

Male. Primaries and secondaries dusky white; the primaries crossed from the costal to the inner margin by five fine waved blackish-brown lines, the costal margin spotted with black, the outer margin from the apex to the anal angle broadly bordered with dark grey, the marginal line black, the fringe brown; the secondaries crossed by three dark waved lines, the apex dark grey; the underside paler than above, and with the lines very indistinct: head, thorax, abdomen, and legs white, the abdomen banded with black. Expanse $\frac{2}{3}$ inch.

Hab. MEXICO, Teapa in Tabasco (*H. H. Smith*); PANAMA, Chiriqui (*Ribbe, in mus. Staudinger*).

The specimen from Chiriqui in Dr. Staudinger's collection is labelled *Botys appialis*, Guen., but I cannot find that it has been described. We figure an example from Teapa.

4. ***Pterygisus rhealis***, sp. n. (Tab. LXII. fig. 9.)

Male. Primaries and secondaries creamy-white; the primaries with the base and the costal margin thickly spotted with black, and with four narrow black lines crossing from the costal to the inner margin—the first two joined on the inner margin, and the second and third connected by a fine line; the secondaries crossed by three black lines; the marginal line black; the fringe creamy-white: head, thorax, abdomen, and legs creamy-white, the abdomen banded with black. Expanse $\frac{7}{10}$ inch.

Hab. MEXICO, Amula in Guerrero 6000 feet (*H. H. Smith*).

Four specimens.

LOXOSCIA.

Loxoscia, Warren, Ann. & Mag. Nat. Hist. (6) vi. p. 476 (1890).

Mr. Warren makes *Botys scinialis*, Walk., the type of this genus; *B. mnemusalis*, Walk., also belongs to it.

I. ***Loxoscia mnemusalis***.

Botys mnemusalis, Walk. Cat. xviii. p. 593¹.

Botys sanguiflualis, Leder. Wien. ent. Monats. vii. pp. 374, 470, t. 11. fig. 1².

Hab. PANAMA, Chiriqui (*Ribbe, in mus. Staudinger*).—VENEZUELA²; GUIANA, Essequibo River; AMAZONS¹.

Of this species I have seen one specimen from Chiriqui and two from South America. In Lederer's figure of *B. sanguiflualis* the wings are a little more heavily marked.

PANTOGRAPHA.

Pantographa, Lederer, Wien. ent. Monats. vii. p. 387, t. 3. fig. 3, t. 5. fig. 25 (1863).

1. ***Pantographa scripturalis***.

Pionea scripturalis, Guen. Sp. gén. des Lép. viii. p. 373, Delt. et Pyral. t. 4. fig. 11¹; Walk. Cat. xviii. p. 757².

Pantographa scripturalis, Leder. Wien. ent. Monats. vii. p. 388, t. 12. fig. 12³.

Hab. NORTH AMERICA, Canada², United States².—MEXICO, Paso de San Juan in Vera Cruz (*Schaus*); PANAMA, Chiriqui (*Ribbe, in mus. Staudinger*), Volcan de Chiriqui 2000 to 3000 feet (*Champion*).—ECUADOR; AMAZONS, Pará²; BRAZIL¹³.

Guenée's figure of *P. scripturalis* is a very bad one, but I have no doubt that our insect belongs to the same species. We have received very few specimens from within our limits, but from Ecuador I have a large series, which show considerable variation in size and colour, and in the distinctness of the markings. The smaller examples by themselves might perhaps be considered distinct.

2. **Pantographa cybelealis**, sp. n. (Tab. LXII. fig. 8, ♂.)

Male. Similar to *P. scripturalis*, Guen., but of a darker yellow, with the base of the primaries dark brown, this colour extending from the costal to the inner margin, then partly across the wing to the outer margin, where it forms a wide dark border; secondaries dark yellow, crossed near the base from the costal to the inner margin by a wide dark brown band, which is followed by a large pale yellow mark and two zigzag waved brown lines; the marginal line of both wings black-brown, the fringe brown; the underside pale yellowish-white, the outer margin of the primaries shaded with brown: head, antennæ, and thorax dark brown; the abdomen yellow above, shaded with brown on each side, yellowish-white beneath; the legs yellowish-white.—*Female*. Very similar to the male, but with the secondaries considerably darker. Expanse $1\frac{6}{10}$ inch.

Hab. PANAMA, Volcan de Chiriqui 2000 to 3000 feet (*Champion*).—ECUADOR.

Three males and one female. Allied to *P. scripturalis*, Guen., but differing from it in the dark base of the primaries.

3. **Pantographa suffusalis**, sp. n. (Tab. LXII. fig. 10, ♂.)

Male. Primaries and secondaries pale yellowish-white, marked very much as in *P. scripturalis*, Guen., but with the brown shading very pale; the underside pale yellowish-white, with the markings very indistinct: head, thorax, and abdomen pale yellowish-white. Expanse 1 inch.

Hab. MEXICO, Teapa in Tabasco (*H. H. Smith*); COSTA RICA, Candelaria Mts. (*Underwood*).

I have seen several specimens of this species. We have received two only; the one from Teapa is figured.

4. **Pantographa pharaxalis**, sp. n. (Tab. LXII. fig. 12, ♂.)

Male. Primaries and secondaries cream-colour, semihyaline, each crossed from the costal to the inner margin by a series of fine zigzag waved pale brown lines, the costal margin and apex of the primaries slightly yellowish, the marginal line of both wings dark brown, the fringe cream-colour; the underside with very faint markings: head, thorax, and abdomen cream-coloured, the anal segments of the latter marked with black, the legs white. Expanse $1\frac{1}{10}$ inch.

Hab. COSTA RICA, Volcan de Irazu 6000 to 7000 feet (*Rogers*).

Four specimens, one only in good condition.

5. **Pantographa idmonalis**, sp. n. (Tab. LXII. fig. 11, ♂.)

Male. Primaries and secondaries very pale yellowish-fawn-colour; the primaries crossed from the costal to the inner margin by three narrow waved brown lines, a spot in the cell and a double spot at the end of it also brown, a zigzag submarginal curved pale line extending from the costal to the inner margin, and then continued across the secondaries to the anal angle; the secondaries crossed by several indistinct lines; the marginal line of both wings and the fringe dark brown; the underside yellowish-white: head, thorax, and abdomen pale yellowish-fawn-colour, the anus black, the legs yellowish-white, the antennæ pale brown.—*Female*. Very similar to the male. Expanse $1\frac{1}{2}$ inch.

Hab. MEXICO, Cuernavaca in Morelos (*H. H. Smith*).

One pair. The male is figured.

6. **Pantographa gorgonalis**, sp. n. (Tab. LXII. fig. 13.)

Primaries yellowish-fawn-colour, crossed by three irregular bands of semihyaline pearly-white spots—the first near the base, the second about the middle, the third beyond the cell,—which are edged on the outer side

with brown, the fringe yellowish-white; secondaries pearly hyaline-white, the outer margin shaded with yellowish-fawn-colour, a spot at the end of the cell and a waved band below it crossing from the costal to the inner margin blackish-brown, the fringe yellowish-white; the underside yellowish-white, almost without markings: head and antennæ yellow; the collar, thorax, and legs white; the abdomen yellow, banded with white on the first three segments. Expanse $1\frac{1}{2}$ inch.

Hab. MEXICO, Dos Arroyos in Guerrero 1000 feet (*H. H. Smith*).

Two specimens, apparently both females.

7. *Pantographa orsonalis*, sp. n. (Tab. LXII. fig. 14.)

Male. Primaries and secondaries pale greyish-brown; the primaries with the costal margin from the base almost to the apex edged with chrome-yellow, and crossed from the costal to the inner margin by four waved dark brown lines, with a round spot at the end of the cell, an almost square spot below it, and two elongated spots on the costal margin near the apex white, the marginal line dark brown, edged with a fine yellow line on the outer side, the fringe brown; the secondaries with a dark brown spot at the end of the cell, some distance below which a dark line crosses the wing from the costal to the inner margin, the marginal line dark brown, edged with a fine yellow line on the outer side, the fringe brown; the underside pearly-white, the dark lines of spots more distinct than above: head, antennæ, thorax, and abdomen pale greyish-brown, the legs yellowish-white. Expanse $1\frac{1}{2}$ inch.

Hab. COSTA RICA (*Gabb, in mus. D.*); PANAMA, Chiriqui (*Ribbe, in mus. Staudinger*), Volcan de Chiriqui 3000 feet (*Champion*).

Three specimens. We figure the one from the Volcan de Chiriqui. The example from Costa Rica is considerably darker than either of the others.

ASCIODES.

Asciodes, Guenée, Sp. gén. des Lép. viii. p. 374 (1854); Lederer, Wien. ent. Monats. vii. p. 411.

1. *Asciodes anormalis*.

Botys anormalis, Guen. Sp. gén. des Lép. viii. p. 352¹; Walk. Cat. xviii. p. 619².

Captobasis anormalis, Leder. Wien. ent. Monats. vii. p. 429³.

Botys helcitalis, Walk. Cat. xviii. p. 574⁴.

Botys orphnealis, Walk. loc. cit. p. 736⁵.

Botys dracusalis, Walk. Cat. xix. p. 983⁶.

Hab. HONDURAS (*Miller*⁶).—GUIANA, Cayenne¹³; BRAZIL, Rio Janeiro²; ANTILLES, JAMAICA⁴, San Domingo⁴.

No locality is given by Walker⁵ for *Botys orphnealis*.

SATHRIA.

Sathria, Lederer, Wien. ent. Monats. vii. p. 411 (1863).

1. *Sathria internitalis*.

Asciodes internitalis, Guen. Sp. gén. des Lép. viii. p. 375¹; Walk. Cat. xviii. p. 761².

Sathria stercoralis, Leder. Wien. ent. Monats. vii. p. 411, t. 15. fig. 4³.

Hab. MEXICO, Jalapa (*M. Trujillo*).—ANTILLES, Cuba³, Haiti¹², Dominica.

Two specimens, both males. The Mexican examples are paler than those from Dominica in my own collection.

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2. *Sathria cephalis*.

Botys cephalis, Walk. Cat. xviii. p. 623¹.

Botys laticalis, Leder. Wien. ent. Monats. vii. pp. 375, 472, t. 11. fig. 4².

Hab. MEXICO, Presidio (*Forrer*), Rinconada, Paso de San Juan (*Schaus*); GUATEMALA, Zapote (*Champion*); COSTA RICA, Volcan de Irazu 6000 to 7000 feet (*Rogers*), Santa Clara Valley 1200 feet (*Zürcher*); PANAMA, Chiriqui (*Ribbe, in mus. Staudinger*; *Arcé, in mus. D.*).—VENEZUELA^{1 2}.

3. *Sathria minnithalis*, sp. n. (Tab. LXII. fig. 15, ♂.)

Male. Primaries reddish-brown, the apex yellow, three indistinct darker brown lines crossing the wing from the costal to the inner margin—the first close to the base, the second beyond the cell, the third submarginal,—a small black dot in the cell, the fringe brown; secondaries pale brown, with a submarginal row of darker spots, the fringe brown: head, antennæ, and thorax reddish-brown, the abdomen and legs pale brown.—*Female.* Very similar to the male. Expanse $1\frac{1}{4}$ inch.

Hab. GUATEMALA, Calderas (*Champion*); PANAMA, Chiriqui (*Arcé, in mus. D.*), Volcan de Chiriqui 2000 to 3000 feet (*Champion*).

A few specimens. A male from Chiriqui is figured.

PARDOMIMA.

Pardomima, Warren, Ann. & Mag. Nat. Hist. (6) vi. p. 477 (1890).

1. *Pardomima novalis*.

Botys ?) *novalis*, Walk. Cat. xxxiv. p. 1399¹.

Hab. PANAMA, Volcan de Chiriqui (*Ribbe*).—AMAZONS, Villa Nova¹.

One specimen, nearly agreeing with Walker's type in the National Museum.

STENOMELES.

Stenomeles, Warren, Ann. & Mag. Nat. Hist. (6) ix. p. 437 (1892).

1. *Stenomeles agavealis*.

Botys agavealis, Walk. Cat. xviii. p. 574¹.

? *Botys pruinalis*, Leder. Wien. ent. Monats. vii. pp. 373, 469, t. 9. fig. 6².

Hab. MEXICO, Teapa in Tabasco (*H. H. Smith*).—BRAZIL²; ANTILLES, San Domingo¹.

Sent in numbers from Teapa, the specimens agreeing well with others from Rio Janeiro in my own collection.

PILOCROCIS.

Pilocrocis, Lederer, Wien. ent. Monats. vii. p. 430, t. 3. fig. 17, t. 5. fig. 12 (1863).

1. *Pilocrocis amissalis*.

Botys amissalis, Guen. Sp. gén. des Lép. viii. p. 351¹; Walk. Cat. xviii. p. 614².

Pilocrocis amissalis, Leder. Wien. ent. Monats. vii. p. 430³.

Hab. MEXICO, Jalapa (*M. Trujillo*), Coatepec (*Brooks*), Teapa (*H. H. Smith*), Temax in North Yucatan (*Gaumer*); GUATEMALA, San Gerónimo (*Champion*); COSTA RICA, Candelaria Mts. (*Underwood*); PANAMA, Volcan de Chiriqui 2000 to 3000 feet (*Champion*).—BRAZIL ^{1 2 3}.

In Mexico this species appears to be not uncommon, but from Guatemala we have received only one example, which is slightly darker than the others.

MICROTHYRIS.

Microthyris, Lederer, Wien. ent. Monats. vii. p. 432 (1863).

1. *Microthyris prolongalis*.

Botys prolongalis, Guen. Sp. gén. des Lép. viii. p. 353 ¹; Walk. Cat. xviii. p. 620 ².

Microthyris prolongalis, Leder. Wien. ent. Monats. vii. p. 433, t. 16. fig. 17 ³.

Botys eurytalis, Walk. Cat. xviii. p. 576 ⁴.

Hab. MEXICO, Jalapa (*M. Trujillo*), Cordova (*Rümeli*); GUATEMALA, Cerro Zunil 4000 to 5000 feet, Volcan de Atitlan 2500 to 3500 feet, Pantaleon, Zapote (*Champion*); COSTA RICA, Candelaria Mts. (*Underwood*); PANAMA (*Arcé, in mus. D.*).—ECUADOR; BRAZIL ^{1 2 3}; ANTILLES, Jamaica ⁴, San Domingo ⁴, Dominica.

Of this species we have received a considerable number of specimens, which vary to some extent in the form of the hyaline spots on the primaries—in some examples they are quite large, in others small and indistinct.

2. *Microthyris sectalis*.

Botys sectalis, Guen. Sp. gén. des Lép. viii. p. 353 ¹; Walk. Cat. xviii. p. 620 ².

Microthyris sectalis (scotalis), Leder. Wien. ent. Monats. vii. p. 433 ³.

Botys subæqualis, Walk. Cat. xxxiv. p. 1394 ⁴.

Hab. MEXICO, Teapa (*H. H. Smith*); PANAMA, Volcan de Chiriqui 2000 to 3000 feet (*Champion*).—COLOMBIA, Bogota ⁴; BRAZIL ^{1 2 3}.

A female specimen from the Volcan de Chiriqui belongs, I believe, to *M. sectalis*, Guen.; it is rather smaller than the type of *Botys subæqualis*, Walk., which is contained in my own collection, the latter being inseparable from Guenée's species.

HERPETOGRAMMA.

Herpetogramma, Lederer, Wien. ent. Monats. vii. p. 430 (1863).

1. *Herpetogramma patagialis*.

Botys patagialis, Zell. Kongl. Vet.-Ak. Handl. 1852, p. 37 ¹; Walk. Cat. xxxiv. p. 1387 ².

Herpetogramma servalis, Leder. Wien. ent. Monats. vii. p. 430, t. 16. fig. 16 ³.

Hab. MEXICO, Jalapa (*M. Trujillo*), Coatepec (*Schaus*); GUATEMALA, San Gerónimo (*Champion*); COSTA RICA, Volcan de Irazu 6000 to 7000 feet (*Rogers*), Candelaria Mts. (*Underwood*); PANAMA, Volcan de Chiriqui 2000 to 3000 feet (*Champion*).—COLOMBIA ¹; BRAZIL ³.—CAFFRARIA ^{1 2}.

CERATOCLASIS.

Ceratoclasia, Lederer, Wien. ent. Monats. vii. p. 430, t. 5. fig. 13 (1863).

1. *Ceratoclasia delimitalis*.

Botys delimitalis, Guen. Sp. gén. des Lép. viii. p. 351¹; Walk. Cat. xviii. p. 571².

Ceratoclasia delimitalis, Leder. Wien. ent. Monats. vii. p. 431, t. 16. fig. 14³.

Hab. MEXICO, Dos Arroyos in Guerrero 1000 feet (*H. H. Smith*); GUATEMALA, San Gerónimo, Zapote (*Champion*); COSTA RICA, Santa Clara Valley 1200 feet (*Zürcher*); PANAMA, Chiriqui (*Ribbe, in mus. Staudinger*).—BRAZIL³; ANTILLES, Haiti^{1 2 3}.

We have received numerous examples of this species from our region.

2. *Ceratoclasia infuscalis*.

Botys infuscalis, Guen. Sp. gén. des Lép. viii. p. 350¹; Walk. Cat. xviii. p. 613²; Leder. Wien. ent. Monats. vii. p. 375 (nec Zell.)³.

Hab. MEXICO, Durango (*Forrer*), Jalapa (*M. Trujillo*), Venta de Zopilote in Guerrero, Teapa in Tabasco (*H. H. Smith*); GUATEMALA, San Isidro, Cubilguitz in Vera Paz (*Champion*); PANAMA, Chiriqui (*Ribbe, in mus. Staudinger*), Volcan de Chiriqui 2000 to 3000 feet (*Champion*).—BRAZIL^{1 2 3}.

SAMEA.

Samea, Guenée, Sp. gén. des Lép. p. 193 (1854) (part.).

1. *Samea ecclesialis*.

Samea ecclesialis, Guen. Sp. gén. des Lép. viii. p. 194, Delt. et Pyral. t. 6. fig. 7¹; Walk. Cat. xvii. p. 350²; Leder. Wien. ent. Monats. vii. p. 380³; Druce, P. Z. S. 1884, p. 325⁴.

Samea disertalis, Walk. Cat. xxxiv. p. 1302⁵.

Botys artificialis, Leder. Wien. ent. Monats. vii. pp. 370, 463, t. 8. fig. 16⁶.

Hab. NORTH AMERICA³.—MEXICO, Presidio (*Forrer*), Rinconada (*Schaus*), Jalapa (*M. Trujillo*), Teapa in Tabasco (*H. H. Smith*); BRITISH HONDURAS, Belize (*Sir A. Moloney, in mus. D.*); GUATEMALA, San Gerónimo, El Reposo, Cerro Zunil 4000 to 5000 feet (*Champion*); HONDURAS (*Dyson*²), Limas⁵; COSTA RICA, Volcan de Irazu 6000 to 7000 feet (*Rogers*), Candelaria Mts. (*Underwood*); PANAMA, Chiriqui (*Ribbe, in mus. Staudinger*), Bugaba, Volcan de Chiriqui (*Champion*).—COLOMBIA¹; VENEZUELA²; ECUADOR; GUIANA, Cayenne³; AMAZONS²; BRAZIL^{1 6}; ANTILLES, Jamaica², Dominica⁴.

This common and widely distributed species varies considerably in size and in the distinctness of the markings.

2. *Samea matutinalis*.

Samea matutinalis, Guen. Sp. gén. des Lép. viii. p. 195¹; Walk. Cat. xvii. p. 354 (?)².

Botys matutinalis, Leder. Wien. ent. Monats. vii. p. 376, t. 11. fig. 14³.

Hab. COSTA RICA, Candelaria Mts. (*Underwood*); PANAMA, Chiriqui (*Ribbe, in mus.*

Staudinger), Taboga I. (*J. J. Walker*).—GUIANA, Cayenne¹; ECUADOR; AMAZONS²; BRAZIL³, Rio Janeiro².

Three specimens, agreeing with others from Ecuador in my own collection.

3. *Samea zinghalis*.

Samea zinghalis, Walk. Cat. xvii. p. 355¹.

Phalangiodes serinalis, Walk. Cat. xvii. p. 468².

Hab. NORTH AMERICA, United States².—MEXICO, Jalapa (*M. Trujillo*); GUATEMALA, San Gerónimo, Zapote (*Champion*).—VENEZUELA¹.

Six specimens, varying considerably in size.

MIMORISTA.

Mimorista, Warren, Ann. & Mag. Nat. Hist. (6) vi. p. 476 (1890).

1. *Mimorista actealis*.

Hymenia actealis, Walk. Cat. xix. p. 944¹.

Samea dignotalis, Walk. Cat. xxxiv. p. 1301².

Hab. HONDURAS, Limas².—AMAZONS, Villa Nova¹.

The types of this species are contained in the National Collection.

2. *Mimorista ebulealis*.

Samea ebulealis, Guen. Sp. gén. des Lép. viii. p. 196¹; Walk. Cat. xvii. p. 351²; Leder. Wien. ent. Monats. vii. p. 380³.

Hab. NORTH AMERICA^{1 3}.—GUATEMALA, in the city (*Rodriguez*); HONDURAS (*Dyson*²); PANAMA, Chiriqui (*Ribbe, in mus. Staudinger*).—BRAZIL^{1 3}.

The two specimens received from Guatemala are very similar to the type; the single example from Chiriqui in Dr. Staudinger's collection is much paler.

3. *Mimorista salaconalis*, sp. n. (Tab. LXII. fig. 16.)

Primaries and secondaries bright yellow; the primaries with the costal margin, a spot at the end of the cell, the apex, and outer margin glossy-purplish-brown; the secondaries edged with purplish-brown; head brown, the thorax and abdomen yellowish, the legs white. Expanse $\frac{3}{4}$ inch.

Hab. PANAMA, Chiriqui (*Trötsch, in mus. Staudinger*).

One specimen, apparently a female.

EULEPTE.

Eulepte, Hübner, Samml. exot. Schmett. ii. t. 225. figg. 1-4 (1806).

1. *Eulepte concordalis*.

Eulepte concordalis, Hübner, Samml. exot. Schmett. ii. t. 225. figg. 1-4¹.

Botys concordalis, Guen. Sp. gén. des Lép. viii. p. 345²; Walk. Cat. xviii. p. 608³; Leder. Wien. ent. Monats. vii. p. 375⁴.

Botys gastralis, Guen. Sp. gén. des Lép. viii. p. 346⁵; Walk. Cat. xviii. p. 570⁶.

Botys ogmiasalis, Walk. Cat. xviii. p. 730⁷.

Botis levalis, Hulst, Trans. Am. Ent. Soc. xiii. p. 152⁸.

Hab. NORTH AMERICA, Florida⁸, California⁸.—MEXICO, Orizaba (*Boucard, in mus. D.*), Rinconada and Paso de San Juan (*Schaus*), Jalapa (*M. Trujillo*), Teapa in Tabasco (*H. H. Smith*); GUATEMALA, Pantaleon, Volcan de Atitlan 2500 to 3500 feet (*Champion*); PANAMA, Chiriqui (*Arcé, in mus. D.*), Volcan de Chiriqui 2000 to 3000 feet (*Champion*), Obispo (*Salvin, in mus. D.*).—VENEZUELA³; ECUADOR; AMAZONS³; BRAZIL^{2 4}; ANTILLES, Haiti⁵, San Domingo^{5 6}, Dominica, Guadeloupe⁵.

This species, of which we have received a large series, varies in size and colour; some examples are pale hyaline-yellow, others are bright yellow with the darker markings very distinct. The specimens from Mexico and Guatemala are generally paler than those from South America, but they are in no way constant. Walker⁷ does not give any locality for *Botys ogmiasalis*.

2. *Eulepte plagiatalis*.

Botys plagiatalis, Walk. Cat. xviii. p. 673¹.

Hapalia (?) *plagiatalis*, Moore, Lep. Ceylon, iii. p. 337².

Hab. GUATEMALA, San Isidro 1600 feet (*Champion*).—CEYLON^{1 2}.

The type of this species, which is said to be from Ceylon, is contained in the Oxford Museum, and a specimen from Guatemala agrees well with it. Walker's type is, I believe, a male, and the Guatemalan specimen a female.

3. *Eulepte pactolalis*.

Botys pactolalis, Guen. Sp. gén. des Lép. viii. p. 346¹; Walk. Cat. xviii. p. 608²; Leder. Wien. ent. Monats. vii. p. 375³.

Hab. COSTA RICA, Candelaria Mts. (*Underwood*); PANAMA, Chiriqui (*Arcé, in mus. D.*).—ANTILLES, Guadeloupe^{1 2 3}.

We have received a good series of this species from Costa Rica; it is allied to *E. concordalis*, Hübn., but is larger, and has the base of the primaries brown.

PRENESTA.

Prenesta, Snellen, Tijdschr. voor Ent. xviii. p. 219 (1874).

1. *Prenesta sunialis*.

Prenesta sunialis, Snell. Tijdschr. voor Ent. xviii. p. 221, t. 12. figg. 17, 18.

Hab. PANAMA, Chiriqui (*Trötsch, in mus. Staudinger*).—COLOMBIA, Rio Magdalena¹.

Dr. Staudinger has received a specimen of this species from Chiriqui

2. *Prenesta scyllalis*.

Botys scyllalis, Walk. Cat. xviii. p. 566¹.

Prenesta scyllalis, Warr. Trans. Ent. Soc. Lond. 1889, p. 281².

Prenesta scyllalis, var. *castanealis*, Warr. loc. cit. p. 282³.

Botys delicatalis, Leder. Wien. ent. Monats. vii. pp. 376, 473, t. 11. fig. 10⁴.

Prenesta fabialis, Snell. Tijdschr. voor Ent. xviii. p. 220, t. 12. figg. 15, 16⁵.

Hab. MEXICO¹; GUATEMALA, Teleman in Vera Paz (*Champion*); HONDURAS, Ruatan I. (*Gaumer*); COSTA RICA, Candelaria Mts. (*Underwood*); PANAMA, Chiriqui (*Trötsch. in mus. Staudinger*), Obispo (*Salvin, in mus. D.*).—COLOMBIA, Rio Magdalena⁵; ECUADOR; AMAZONS^{2 3}; BRAZIL⁴.

I have seen five specimens only of this species from Central America. From Tropical South America I have in my own collection a considerable number of examples, which vary in colour from pale yellow to dark reddish-yellow. One specimen from Rio Janeiro is very similar to those from Panama.

ASTURA.

Astura, Guenée, Sp. gén. des Léop. viii. p. 318 (1854).

This genus may be readily distinguished from its allies by the very long antennæ in both sexes.

1. *Astura elevata*.

Phalæna elevata, Fabr. Ent. Syst. iii. 2, p. 216¹.

Astura elevatis, Guen. Sp. gén. des Léop. viii. p. 319, Delt. et Pyral. t. 10. fig. 3²; Walk. Cat. xviii. p. 548³; Druce, P. Z. S. 1884, p. 325⁴.

Botys elevata, Leder. Wien. ent. Monats. vii. p. 375⁵.

Hab. MEXICO, Jalapa (*M. Trujillo, Höge*), Coatepec (*Schaus*); GUATEMALA, Panima in Vera Paz, Cerro Zunil 4000 feet, Zapote (*Champion*); COSTA RICA, Volcan de Irazu 6000 to 7000 feet (*Rogers*); PANAMA, Chiriqui (*Ribbe*), Volcan de Chiriqui 4000 to 5000 feet (*Champion*).—SOUTH AMERICA¹, Cayenne^{2 3 5}, Pará³, Ega³, Brazil⁵; ANTILLES, Dominica⁴.

This beautiful species is widely distributed in our region, but I have not seen it from South America.

2. *Astura fimbriauralis*.

Astura fimbriauralis, Guen. Sp. gén. des Léop. viii. p. 319¹; Walk. Cat. xviii. p. 548²; Leder. Wien. ent. Monats. vii. p. 390, t. 12. fig. 16³.

Hab. MEXICO, Jalapa (*M. Trujillo*), Cordova, (*Rümeli*), Atoyac in Vera Cruz (*H. H. Smith*); GUATEMALA, Panima in Vera Paz, Cerro Zunil 4000 feet, Zapote (*Champion*); COSTA RICA, Volcan de Irazu 6000 to 7000 feet (*Rogers*), Candelaria Mts. (*Underwood*);

PANAMA, Chiriqui (*Ribbe*), Volcan de Chiriqui 4000 to 5000 feet (*Champion*).—AMAZONS, Pará²; BRAZIL^{1 3}; ANTILLES, Jamaica², San Domingo².

Varies in size and colour, and in the distinctness of the markings. The Mexican specimens are large, heavily spotted, and dark, agreeing best with those from Panama. The Guatemalan specimens are small and pale, with the spots indistinct, agreeing best with those from the Amazons in my own collection.

NOTARCHA.

Notarcha, Meyrick, Trans. Ent. Soc. Lond. 1884, p. 310.

1. *Notarcha cassusalis*.

Zebronia cassusalis, Walk. Cat. xvii. p. 477¹.

Haritala cassusalis, Moore, Lep. Ceylon, iii. p. 311².

Notarcha cassalis, Meyr. Trans. Ent. Soc. Lond. 1884, p. 311³.

Zebronia aurolinealis, Walk. Cat. xvii. p. 478⁴.

Pycnarmon aurolinealis, Moore, P. Z. S. 1867, p. 92⁵.

Botys faustalis, Leder. Wien. ent. Monats. vii. pp. 375, 471, t. 10. fig. 15⁶.

Hab. MEXICO, Atoyac in Vera Cruz (*Schumann*), Orizaba (*H. J. Elwes*), Jalapa (*Höge*).—BORNEO; CELEBES³; JAVA³; SUMATRA³; AMBOINA⁶; INDIA^{3 4 5}; CEYLON^{2 3 4}; NATAL¹; AUSTRALIA³.

I cannot separate the Mexican specimens from others from India in Col. Swinhoe's collection. The species possesses an extraordinary geographical distribution.

2. *Notarcha æchmisalis*.

Botys æchmisalis, Walk. Cat. xix. p. 982¹.

Hab. MEXICO¹; GUATEMALA, San Gerónimo (*Champion*).

Two specimens, both in poor condition.

ZEBRONIA.

Zebronia, Hübner, Verz. bek. Schmett. p. 361 (1816); Walker, Cat. xvii. p. 469.

1. *Zebronia perspicata*.

Phalæna perspicata, Fabr. Mant. Ins. ii. p. 213¹.

Palpita normalis perspicalis, Hübn. Samml. exot. Schmett. i. t. 211. figg. 1–4².

Zebronia perspicalis, Hübn. Verz. bek. Schmett. p. 361³; Walk. Cat. xvii. p. 471⁴.

Spilomela perspicalis, Guen. Sp. gén. des Lép. viii. p. 280⁵; Leder. Wien. ent. Monats. vii. p. 442⁶.

Pyralis strigialis, Stoll, Suppl. Cram. Pap. Exot. v. p. 56, t. 12. fig. 7⁷.

Zebronia strigialis, Hübn. Verz. bek. Schmett. p. 361⁸.

Spilomela strigialis, Snell. Tijdschr. voor. Ent. xviii. p. 256⁹.

Hab. GUATEMALA, Panzos in Vera Paz (*Champion*); COSTA RICA, Candelaria Mts. (*Underwood*); PANAMA, Chiriqui (*Arcé, in mus. D.*; *Ribbe, in mus. Staudinger*), Obispo



Druce, Herbert. 1895. "Insecta Lepidoptera Rhopalocera." *Biologia Centrali-Americana :zoology, botany and archaeology* 2, 233–248.

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