





CE 1066  
CE 1066

EDIMBORG SUFFRAGAN AGRICULTURA

EDIMBURGH PARISHES

EDINBURGH, THE CITY OF, IS DIVIDED INTO 12 PARISHES, WHICH ARE AS FOLLOWS:-  
THE PARISHES ARE:-  
1. ST. ANDREW'S PARISH.  
2. ST. CUTHBERT'S PARISH.  
3. ST. MARY'S PARISH.  
4. ST. MARGARET'S PARISH.  
5. ST. JOHN'S PARISH.  
6. ST. GILES' PARISH.  
7. ST. MARGARET'S PARISH.  
8. ST. MARY'S PARISH.  
9. ST. ANDREW'S PARISH.  
10. ST. MARGARET'S PARISH.  
11. ST. MARY'S PARISH.  
12. ST. ANDREW'S PARISH.

THE PARISHES ARE AS FOLLOWS:-

LIST  
OF THE  
SPECIMENS  
OF  
LEPIDOPTEROUS INSECTS  
IN  
THE COLLECTION  
OF THE  
BRITISH MUSEUM.

BY  
FRANCIS WALKER, F.L.S.  
—  
PART VII.—LEPIDOPTERA HETEROCEA.  
—

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## INTRODUCTION.

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THE object of the present Catalogue has been to give a complete list of the specimens of Lepidopterous Insects contained in the collection of the British Museum, indicating at the same time the peculiarities of each, as regards variation of character, locality, and the source from whence it has been derived. With this view, the different individuals of each species contained in the collection are indicated by the letters *a*, *b*, *c*, &c., following the name of the species and its synomyms, and the description, if it appeared to have been before undescribed.

JOHN EDWARD GRAY.

*British Museum,*

*May 1st, 1856.*

to make up their own opinions. And that will be done by  
developing something that is consistent with what they  
have learned concerning society prior to graduation. A basic  
requirement of every teacher is to do a good job of education and that means estab-  
lishing and maintaining a positive relationship with each student, and  
the best way to do that is to get to know each student individually.  
And that means getting to know each student's background and  
strengths and weaknesses and his or her interests and goals.  
And that kind of knowledge is important because it helps you to  
know how to teach that student effectively.

CATALOGUE  
OF  
LEPIDOPTERA HETEROCHERA.

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PART VII.

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Fam. 11. COSSIDÆ.

Corpus crassum. Antennæ capitis latitudine multo longiores. Proboscis brevissima aut nulla. Alæ anticæ aliter venosæ et infrenatæ, necnon majores ac posteriores, venis marginis interioris duabus. *Fæmina* alata. Larva sæpissime lignivora.

*Cossides*, Herr.-Schæff.

*Hepialidæ*, p., Steph. Brit. Ent. Haust. ii. 3.

*Phalæna Fodicantes Teredines*, Hübn. Verz. Schmett. 195.

*Cossidæ et Zeuzeridæ*, Newman, Ent. Mag. i. 68.

*Phalænina Cossites*, p., Newman, Ent. Mag. ii. 383.

*Zeuzerides*, Boisd. Ind. Méth. 75.

*Synopsis of Genera.*

A. Antennæ *maris* æqualiter pectinatæ aut serratæ.

A. Tarsi non fasciculati.

A. Alæ anticæ non falcatae.

a. Palpi longi. - - - - - 3. CULAMA, Walk.

b. Palpi non longi.

i. Alæ anticæ apice subrotundatae.

\* Antennæ subtus foliatæ. - - 1. COSSUS, Fabr.

\*\* Antennæ *maris* bipectinatæ, *fæminæ* simplices.

2. ENDAGRIA, Boisd.

ii. Alæ anticæ apice valde rotundatae.

4. COSSODES, White.

B. Alæ anticæ subfalcatae.

a. Antennæ simplices. - - - 9. MORPHEIS, Hübn.

b. Antennæ pectinatæ. - - - 6. LANGSDORFIA, Hübn.

B. Tarsi fasciculati. - - - - -

5. GIVIRA, Walk.

B. Antennæ *maris* inæqualiter pectinatæ.

A. Antennæ *maris* apice nudæ. - - - 7. ZEUZERA, Latr.

B. Antennæ *maris* usque ad apices pectinatæ.

8. PHRAGMATÆCIA, Newm.

## Genus 1. COSSUS.

Corpus erassum. Palpi sæpissime brevissimi, vix conspicui, nonnunquam mediocriter longi. Antennæ serratæ, aut pectinatæ, thorace longiores. Abdomen alas posticas plus minusve superans. Pedes validi, pilosi; tibiæ posticæ calcaribus quatuor parvis. Alæ longiusculæ, vix latæ; anticæ apud costam fere rectæ, apice rotundatae, margine exteriore perobliquo. Fæm.—Oviductus conspicuus.

Cossus, Fabr.; Latr.; Leach.; Ochs.; Samou.; Curt.; Steph.; Boisd.: Duponch.; Herr.-Schæff.

Phalæna-Bombyx, p., Linn.; Gmel.

Phalæna-Noctua, p., Linn.

Papilio, p., Lister; Albin.

Phalæna-Cossus, Turt.

Phalæna, p., Scop.

Bombyx, p., Fabr.

Xyleutes et Hypopta, Hübn. Verz. Schmett. 195.

Cossus, p., Ochs.

Cossus et Cryptobia, Boisd.

Body very thick. Palpi generally very short, not visible, of moderate length in some species. Antennæ serrated or pectinated, longer than the thorax. Abdomen extending more or less beyond the hind wings. Legs stout, pilose; hind tibiæ with four short spurs. Wings rather long, hardly broad. Fore wings hardly convex along the costa, rounded at the tips, very oblique along the exterior border; first and second inferior veins almost contiguous at the base; third near the second and about thrice further from the fourth. *Female*.—Oviduct serrated.

The few species of this genus differ much from each other in the length of the palpi, in the antennæ and in other characters, but have great general mutual resemblance, and are therefore not divided from the genus of the typical species *C. ligniperda*.

### Europe.

#### A. Cinerei.

*A. Caput et prothorax cinerea, hujus margo posterior albido-flavus.*

*A. Statura major.* - - - - - *ligniperda, Fabr.*

*B. Statura minor.* - - - - - *teredo, Boisd.*

*B. Caput et thorax nigricantia.* - - - - - *terebra, Wien. Verz.*

#### B. Lateritii.

*A. Alæ anticæ plagiatae.* - - - - - *Thrips, Hübn.*

*B. Alæ anticæ non plagiatae.* - - - - - *Nonagrioides, Lefeb.*

*C. Albidi, nigro maculati.* - - - - - *cœstrum, Hübn.*

### 1. COSSUS LIGNIPERDA.

*Alæ albo-cinereæ, fusco nebulosæ, strigis transversis atris; thorax albidus, postice fascia atra, abdomen annulis albis.*

*Cossus ligniperda, Fabr. Syst. Ent. iii. 2, 3, 1. Schæff. Nomencl.*

*Panz. 78. Ochs. Schmett. von Eur. iii. 90, 1. God. Lép. de*

*France, iv. 47, pl. 3, f. 1. Curt. Brit. Ent. ii. pl. 60. Meig.*

*Syst. Beschr. Eur. Schmett. ii. 185, 1, pl. 76, f. 1; Handb. 115,*

*27. Steph. Ill. Brit. Ent. Haust. ii. 9, 1. Stark, El. Nat.*

*Hist. ii. 365. Herr.-Schæff. Samml. Eur. Schmett. Text, ii.*

*11, 1.*

*Phalæna-Bombyx Cossus, Linn. Syst. Nat. ii. 827; 63; Faun.*

*Suec. ed. i. 812; 2, 1114. Gmel. ed. Syst. Nat. i. 5, 2431, 63.*

*Berk. Syn. Nat. Hist. i. 138. Donov. Nat. Hist. Brit. Ins. iv.*

*pl. 114. Stew. El. Nat. Hist. ii. 153.*

*Phalæna-Cossus Cossus*, *Turt. Syst. Nat.* iii. 341.  
*Xyleutes Cossus*, *Hüb. Verz. Schmett.* 195, 1995.  
*Phalæna Cossus*, *Scop. Ent. Carn.* 200, 500. *Lyonet*.  
*Hepialus Cossus*, *Schr. Faun. Boic.* ii. 1, 299, 1490.  
 — — — — —, *Gron. Zooph.* 204, 837. *Göed. Ins.* ii. pl. 33.  
*List. Göed.* (Angl.) 49; (Lat.) 105, f. 39. *Mouff. Ins.* 196, f. 1. *Petiv. Gazoph.* pl. 51, f. 9. *Ray, Ins.* 150, 2; 351, 25. *Albin, Ins.* pl. 357, f. 56. *Réaum. Ins.* i. pl. 17, f. 1—5. *Merian, Ins. Eur.* pl. 36. *Geoffr. Ins.* ii. 102, 4. *Frisch, Ins.* vii. 1, pl. 1. *Roës. Ins.* i. 2, 113, pl. 18. *Réaum. Ins.* i. pl. 17, f. 1—5. *Lyonnett, Less.* pl. 1, f. 17—22. *Wilkes, Pap.* 15, pl. 2, a. 2. *Schäff. Icon.* pl. 61, f. 1, 2. *Deg. Ins.* ii. 1, 268, 1; 270. *Pap. d'Eur.* v. 63, pl. 189, f. 246; pl. 190, f. 246. *Sup. pl.* 8, f. 246.

*Bombyx Cossus*, *Fabr. Sp. Ins.* ii. 182, 65; *Mant. Ins.* ii. 116, 83. *Scop. Ent. Carn.* 500. *Wien. Verz.* 60, 1. *Oliv. Enc. Méth.* v. 57, 121. *Haw. Lep. Brit.* 89. *Illig. N. Ausg. dess.* i. 126, 1. *Hüb. Bomb.* 150, 2, pl. 46, f. 198; *Larv. Lep.* iii. *Bomb.* iii. *Teredines*, A, a, b, f. 1, a—c. *Esp. Schmett.* iii. 303, pl. 91, f. 1—6. *Müll. Faun. Fridr.* 40, 358; *Zool. Dan.* 119, 1372. *Fuessl. Schweiz, Ins.* 36, 678; *N. Mag.* ii. 60, 63. *Rossi, Faun. Etr.* ii. 170, 1080; *ed. Illig.* 273, 1080. *Vieweg, Tab. Verz.* i. 49, 37. *Borkh. Eur. Schmett.* iii. 357, 134; *Rhein. Mag.* i. 372, 233. *Hufnagel, Tab. im Berl. Mag.* ii. 4, 410, 24. *Lang. Verz.* ii. 107, 822, 823. *Schwarz, Raup.* 654, 755.

*a—i.* England. From Mr. Stephens' collection.

*j.* England. From Mr. Foxcroft's collection.

*k—m.* England.

*n—p.* Europe. From M. Becker's collection.

*q.* Europe.

## 2. COSSUS TEREBRA.

*Cinereus; thorax postice striga albida; alæ dorso dentatæ, atomis strigisque undatis fusco-ferrugineis.*

*Bombyx terebra*, *Fabr. Mant. Ins.* ii. 116, 84. *Wien. Verz.* 60, 2. *Oliv. Enc. Méth.* v. 58, 122. *Hüb. Bomb.* 150, 1, pl. 46, f. 197. *Illig. N. Ausg. dess.* i. 126, 2. *Esp. Schmett.* iii. *Cont. Bomb.* i. pl. 1, f. 1. *Fuessl. N. Mag.* ii. 4, 377. *Borkh. Eur. Schmett.* iii. 361, 135. *Schwarz, Raup.* 667, 756. *Duponch. Suppl. Lép. Fr.* 211, pl. 68, f. 2.

*Phalæna-Bombyx terebra*, *Gmel. ed. Syst. Nat.* i. 5, 2431, 555.

*Cossus terebra*, *Fabr. Ent. Syst.* iii. 2, 43. *Ochs. Schmett. von Eur.* iii. 92, 2. *Meig. Syst. Beschr. Eur. Schmett.* ii. 186, 2, pl. 76, f. 2; *Handb.* 116, 28. *Herr.-Schäff. Samml. Eur. Schmett. Text.* ii. 11, 2.

*Hepialus terebra*, *Schr. Faun. Boic.* ii. 1, 299, 1491.

— — — — —, *Pap. d'Eur.* v. 68, pl. 190, f. 246.

*Xyleutes terebra*, *Hüb. Verz. Schmett.* 195.

*a, b.* Europe. From M. Becker's collection.

### 3. COSSUS TEREDO.

*Alæ albo-cinereæ, nebulosæ nigro strigosæ ; thorax cinereus. Statura Ac. Psi ; facie consimilis C. Ligniperdæ, sed distinctissimus.*

*Cossus teredo*, *Boisd. Tabl. Méth. Lep. d'Eur.* 51.

Dalmatia.

### 4. COSSUS CÆSTRUM.

*Alæ anticæ niveæ, macula sublunari fusca ; posticæ albo-cinereæ.*

*Bombyx cæstrum*, *Hüb. Bomb.* 151, 3, pl. 46, f. 199.

*Cossus cæstrum*, *Ochs. Schmett. von Eur.* iii. 94, 3. *Meig. Syst. Beschr. Eur. Schmett.* ii. 186, 3.

*Hypopta cæstrum*, *Hüb. Verz. Schmett.* 195, 2001.

*a, b.* Italy. From M. Becker's collection.

### 5. COSSUS THRIPS.

*Cervinus ; abdomen testaceum ; alæ subobsolete signatae, anticæ plaga discali fuscescente, posticæ testaceaæ.*

*Bombyx Thrips*, *Hüb. Bomb.* f. 265.

*Hypopta Thrips*, *Hüb. Verz. Schmett.* 199, 2000.

*Cossus Thrips*, *Duponch. Suppl. Lép. France*, 519, pl. 90, f. 1. *Herr.-Schäff. Samml. Eur. Schmett. Text.* ii. 11, 3.

*Cossus Kindermannii*, *Freyer, N. Beytr.* iii. 183, 1, pl. 113.

*Cossus Fuchsonianus*, *Eversm. Nouv. Mem. Soc. Imp. Nat. Mosc.* ii. 352, pl. 2, f. 1.

*a, b.* Russia. From M. Becker's collection.

## 6. COSSUS NONAGRIOIDES.

*Alæ anticæ flavescentes, margine exteriore vena media, serieque punctorum ad apicem nigricantibus; posticæ albidæ; antennæ pectinatæ.*

Cossus Nonagrioides, *Lefebvre, MSS., Boisd. Tabl. Méth. Lep. d'Eur.* 51.

Sicily.

## North America.

- |   |                          |
|---|--------------------------|
| A. Alæ posticæ luteæ aut fuscæ. - - -       | Robiniæ, <i>Boisd.</i>   |
| B. Alæ posticæ cinereæ.                     |                          |
| A. Alæ anticæ margine exteriore subobliquo. | Populi, <i>Barnston.</i> |
| B. Alæ anticæ margine exteriore perobliquo. | plagiatus, <i>Walk.</i>  |

## Group 1.

*Mas et fæm.* Corpus sat robustum. Antennæ longiusculæ. Abdomen alas posticas dimidio superans. Alæ anticæ apud costam subrectæ, apice rotundatae. *Mas.*—Antennæ mediocriter pectinatæ. Alæ anticæ apud marginem exteriorem perobliquæ. *Fæm.*—Antennæ subpectinatæ. Alæ mediocriter latæ; anticæ apud marginem exteriorem sat obliquæ.

*Male and female.* Body rather stout. Antennæ rather long. Abdomen extending for half its length beyond the hind wings. Fore wings almost straight in front, rounded at the tips. *Male.*—Antennæ moderately pectinated. Wings narrow. Fore wings extremely oblique along the exterior border. *Female.*—Antennæ slightly pectinated. Wings moderately broad. Fore wings rather oblique along the exterior border.

## 7. COSSUS ROBINIÆ.

*Mas. Obscure fusca; alæ anticæ nigra reticulatae, vitta maculari discali nigra, margine interiore cano; posticæ pallide luteæ, dimidio basali costaque nigris. Fæm.—Cana, fusco varia; thorax nigro trivittatus; alæ anticæ nigro reticulatae, strigis nonnullis discalibus et anterioribus nigris; posticæ fuscæ, nigro subreticulatae, marginibus pallidioribus.*

Cossus Robiniæ, *Boisd. Ann. Soc. Ent. Fr. 2me Sér. x. 323, 94.*  
*Herr.-Schæff. Lép. Exot. Sp. Sér. i. f. 170, 171.*

*Male.* Dark brown. Fore wings paler brown, hoary along the interior border, with irregular blackish reticulations, and with a discal blackish stripe composed of five large irregular spots. Hind wings pale luteous, black to about half the length from the base and along the costa. *Female.*—Hoary, shaded with pale brown. Thorax with three slender black stripes. Fore wings with irregular blackish reticulations, and with some discal and anterior black streaks. Hind wings brown, paler towards the margin, more indistinctly reticulated. Ciliæ with black dots.

California. Georgia.

### Group 2.

#### 8. COSSUS POPULI.

*Fœm.* *Cinereus*; *palpi nigri*, *caput non superantes*; *antennæ nigræ*, *subserratae*, *thorace paullo longiores*; *pedes albido fasciati*; *alæ subreticulatae*, *anticæ fasciis duabus perangustis nigricantibus*, *exteriore costam versus furcata*.

Very nearly allied to *C. ligniperda*, but smaller and somewhat different in the markings of the fore wings. *Female.*—Cinereous. Antennæ black, very minutely serrated, a little longer than the thorax. Palpi black, extending as far as the head. Legs with whitish bands. Wings slightly reticulated, with very numerous minute transverse blackish streaks. Fore wings with two very slender irregular blackish bands; one at beyond one-third of the length; the other subapical and forked in front. Length of the body 14 lines; of the wings 28 lines.

a. St. Martin's Falls, Albany River, Hudson's Bay. Presented by Dr. Barnston.

#### 9. COSSUS PLAGIATUS.

*Mas.* *Canus*; *palpi caput longitudine non adæquantes*; *thorax nigro bivittatus*; *tarsi cinerei*, *albido fasciati*; *alæ anticæ cinereo reticulatae*, *plaga postica fasciaque subapicali fuscis cano guttatis*; *posticæ cinereæ*, *apud margines canæ cinereo reticulatae*.

*Male.* Hoary. Palpi not extending so far as the head; third joint very minute. Thorax with a slender black stripe along the inner side of each scapula. Tarsi gray, with whitish bands. Fore wings mostly reticulated with gray, narrower and much more oblique along the exterior border than those of *C. Populi*; a brown patch with hoary dots on the middle of the interior border, and an

irregular subapical oblique band of the same hue. Hind wings gray, hoary and indistinctly reticulated with gray along the borders; fringe of the four wings whitish, with blackish intervals. Length of the body 11 lines; of the wings 28 lines.

a. United States. Presented by E. Doubleday, Esq.

### West Indies?

#### 10. COSSUS CIBRARIUS.

*Niveus; thorax immaculatus, albidus; alæ punctis numerosis transversis, per fascias dispositis, nigris.*

*Cossus cibrarius, Liung, Kongl. Vet. Acad. Handl. 1825, 348, pl. 2, f. C.*

West Indies?

### South America.

- |  |                            |
|--|----------------------------|
| A. Alæ posticæ luteæ. - - - - -            | mucoreus, <i>Boisd.</i>    |
| B. Alæ posticæ non luteæ.                  |                            |
| A. Alæ anticæ ferrugineæ. - - - - -        | rubiginosus, <i>Boisd.</i> |
| B. Alæ anticæ non ferrugineæ.              |                            |
| A. Alæ anticæ basi nigro maculatæ.         |                            |
| a. Alæ anticæ subpurpurascentes. - - -     | cœstroides, <i>Boisd.</i>  |
| b. Alæ anticæ non purpureo variaæ.         |                            |
| i. Alæ pallidissime fuscescentes. - - -    | Ziliante, <i>Cram.</i>     |
| ii. Alæ fuscae. - - - - -                  | Musæ, <i>Boisd.</i>        |
| iii. Alæ obscure fuscae. - - - - -         | æthiops, <i>Boisd.</i>     |
| B. Alæ anticæ basi non maculatæ.           |                            |
| i. Abdominis latera ferruginea. - - -      | lateralis, <i>Walk.</i>    |
| ii. Abdominis latera non ferruginea. - - - | guttata, <i>Drury.</i>     |

### Group 1.

*Fæm.* Corpus vix robustum. Antennæ thorace breviores. Abdomen longum, attenuatum, alas posticas plus dimidio superans. Alæ angustæ; anticæ apud costam rectæ, margine exteriore perobliquo, interiore undulato.

*Female.* Body hardly stout. Antennæ shorter than the thorax. Abdomen long, tapering, extending for two-thirds of its length beyond the hind wings. Wings narrow. Forewings almost straight in front, rounded at the tips, extremely oblique along the exterior border, undulating along the interior border.

## 11. COSSUS MUCOREUS.

Fœm. *Fuscus; alæ anticæ ferrugineæ, apud dimidium apicale nigro strigatæ, costa nigro transverse signata, vitta apud marginem interiore nigra; posticæ luteæ marginibus nigricantibus.*

*Cossus mucoreus, Herr.-Schæff. Lép. Exot. Sp. Sér. 1, pl. 9, f. 39, (1853).*

*Fem.* Brown. Fore wings ferruginous, with transverse black marks along the costa; apical half with black streaks, which diminish in size towards the tips; a longer and broader black stripe along the interior border. Hind wings luteous, blackish along the inner and outer borders.

Brazil.

## Group 2.

*Mas.* Corpus mediocriter robustum. Antennæ pectinatæ, thorace breviores. Abdomen alas posticas plus dimidio superans. Alæ mediocriter latæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore sat obliquo; posticæ apud marginem exteriorem vix excavatæ.

*Male.* Body moderately stout. Antennæ pectinated, shorter than the thorax. Abdomen extending for a little more than half its length beyond the hind wings. Wings moderately broad. Fore wings straight in front, rounded at the tips, rather oblique along the exterior border. Hind wings with the exterior border very indistinctly excavated.

## 12. COSSUS RUBIGINOSUS.

*Mas. Fuscus; thorax subflavo-fuscus; alæ anticæ ferrugineo-rufæ, strigis transversis plurimis nigris; posticæ pallidiores, strigis fuscis, basi flavescentes.*

*Cossus rubiginosus, Herr.-Schæff. Lép. Exot. Sp. Sér. 1, pl. 39, f. 42, (1853).*

*Male.* Brown. Thorax with a slight yellowish tinge. Fore wings ferruginous-red, with very numerous black transverse streaks. Hind wings paler, with brown streaks, yellowish at the base.

## Group 3.

*Mas?* Corpus sat gracile. Antennæ pectinatæ, thorace non longiores. Abdomen alas posticas plus dimidio superans. Alæ sat angustæ; anticæ apud costam subrectæ, apice rotundatae, margine exteriore mediocriter obliquo.

*Male?* Body rather slender. Antennæ pectinated, not longer than the thorax. Abdomen extending for more than half its length beyond the hind wings. Wings rather narrow. Fore wings nearly straight in front, rounded at the tips, moderately oblique along the exterior border.

## 13. COSSUS CŒSTROIDES.

*Mas.* *Fusca*; *thorax subpurpurascens*; *alæ anticæ albido-testaceæ, lituris costalibus et marginalibus obscurioribus, disco purpurascente, maculis basalibus et apud marginem interiorem nigris*; *posticæ pallidiores, maculis marginalibus*.

*Cossus cœstroides*, *Boisd.*; *Herr.-Schæff.* *Lép. Exot. Sp. Sér. 1, pl. 39, f. 41, (1853).*

*Male.* Brown. Thorax with a purplish tinge. Fore wings whitish testaceous; marks along the costa and along the exterior border darker testaceous; disk purplish; two black spots near the base, and three or four along the interior border. Hind wings paler and somewhat spotted along the border.

Brazil.

## Group 4.

*Fæm.* Corpus crassum. Antennæ thorace vix breviores. Abdomen alas posticas triente superans. Alæ longæ, mediocriter latæ; anticæ apud costam convexæ, apice rotundatae, margine exteriore perobliquo, interiore undulato.

*Female.* Body thick. Antennæ hardly shorter than the thorax. Abdomen extending for about one-third of its length beyond the hind wings. Wings long, moderately broad. Fore wings somewhat convex in front, rounded at the tips, extremely oblique along the exterior border; interior border somewhat undulating.

## 14. COSSUS MUSÆ.

*Fusca; alæ nigro reticulatæ, maculis marginalibus nigris, anticæ plagis duabus pallide fuscis, posticæ apud marginem interiorem pallidiores.*

Cryptobia Musæ, Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1, f. 1650.

*Female.* Brown. Wings with numerous irregular black reticulations, which are wanting in some parts and confluent in others; a row of black spots along the borders. Fore wings with two very large pale brown spots, one in front of the middle of the wing, the other subapical. Hind wings paler along the exterior border.

Rio Grande.

## Group 5.

*Mas.* Corpus vix robustum. Antennæ sat late pectinatæ. Abdomen alas posticas dimidio superans. Alæ mediocriter latæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore subobliquo.

*Male.* Body hardly stout. Antennæ rather deeply pectinated. Abdomen extending for half its length beyond the hind wings. Wings moderately broad. Fore wings straight in front, rounded at the tips, slightly oblique along the exterior border.

## 15. COSSUS ÆTHIOPS.

*Mas. Obscure fuscus; alæ punctis nigricantibus conspersæ, anticæ fasciis quatuor obliquis angustis nigricantibus, 1a 2aque abbreviatis, 3a furcata; posticæ apud costam pallidiores.*

Cossus? æthiops, Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1, f. 172.

*Male.* Dark brown. Wings sprinkled with blackish points, which are most thick towards the base of the fore wings. Fore wings with four oblique slender blackish bands; first and second abbreviated in front; third forked in front at one-fourth of its length; fourth simple, entire, subapical. Hind wings paler along the costa.

South America.

## 16. COSSUS LATERALIS.

Mas. *Cinereus, cano varius; palpi nigricantes, caput vix adæquantes; abdomen lateribus ventreque ferrugineis; pedes ex parte ferrugineo hirti; alæ anticae canæ, gutta discali nigra fasciisque tribus subundulosis exterioribus cinereis; posticæ cinereæ.*

*Male.* Cinereous, partly hoary. Proboscis extremely slender, abortive. Palpi blackish, hardly extending so far as the head; third joint small, elongate-conical, acuminated. Abdomen bright ferruginous on each side and beneath. Legs partly clothed with bright ferruginous hairs. Fore wings hoary, with a black discal dot, and with three slightly undulating exterior cinereous bands; first band slender; second and third broader and diffused. Hind wings dark cinereous; costa and ciliæ whitish. Length of the body 11 lines; of the wings 28 lines.

a. Rio Janeiro. From Mr. Stevens' collection.

## 17. COSSUS? GUTTATUS.

*Cinerascens; alæ anticæ maculis discalibus fuscis; posticæ antice pallidiores.*

Phalæna-Noctua guttata, Drury, Exot. Ins. iii. 29, pl. 22, 1.  
Dyspessa tessera, Hübn. Verz. Schmett. 194, 1993.

Brazil.

## 18. COSSUS? ZILIANTE.

*Pallidissime fuscescens; alæ anticæ guttis fasciisque abbreviatis discalibus nigris.*

Phalæna-Bombyx Ziliante, Cram. Pap. Exot. iv. 191, pl. 384, f. 6.  
Hypopta Ziliante, Hübn. Verz. Schmett. 195, 2002.

Surinam.

## Africa.

## 19. COSSUS? CRASSUS.

*Fuscus; caput albidum; thorax nigro quadrimaculatus, lateribus maculaque postica albidis; abdomen fasciis interruptis nigris; alæ anticæ albido nigroque variae.*

Phalæna-Noctua crassa, Drury, Exot. Ins. iii. 3, pl. 2, f. 1.

*Xyleutes crassa*, Hübn. Verz. Schmett. 195, 1994.  
*Hepialus crassus*, Westw. ed. Drury, iii. 2, pl. 2, f. 1.

This species may belong to the genus *Zeuzera*.  
 Sierra Leone.

#### 20. COSSUS? TRISTIS.

Mas. *Obscure fuscus, ex parte pallidior; alæ anticæ fascia brevi submarginali nigra.*  
*Phalæna-Noctua tristis*, Drury, Exot. Ins. iii. 27, pl. 21, 1.  
*Hypopta tristis*, Hübn. Verz. Schmett. 195, 1999.  
*Noctua tristis*, Westw. ed. Drury, iii. 28, pl. 21, f. 1.  
 Cape? (Jamaica, Drury, MSS.)

#### Asia.

#### 21. COSSUS STRIX.

*Fuscus, albido conspersus; abdomen nigrum, albido conspersum; alæ anticæ albido nigro maculatæ et subreticulatæ, fusco plagiatae; posticæ subcervinæ, plaga discali fusca, macula postica albida guttisque marginalibus nigris.*  
*Phalæna-Noctua Strix*, Linn. Syst. Nat. i. 2, 832, 82; Mus. Lud Utr. 377. Clerck, Icon. pl. 51, f. 1.  
*Phalæna-Bombyx Strix*, Cram. Pap. Exot. ii. 77, pl. 145, f. A.  
*Bombyx Strix*, Oliv. Enc. Méth. v. 56, 120.  
*Xyleutes Strix*, Hübn. Verz. Schmett. 195.  
 Amboina, Java.

#### 22. COSSUS? 4-NOTATUS.

*Albidus; antennæ fulvæ; alæ anticæ fusco notatae maculisque duabus majoribus et obscurioribus fuscis, una discali, altera exteriore costam versus.*

Described from a mutilated specimen. Whitish. Antennæ tawny. Fore wings somewhat mottled with transverse brown marks, and with two larger and darker brown spots, one in the disk at a little beyond one-third of the length, the other nearer the costa, at a little beyond two-thirds. Length of the body 5? lines; of the wings 14 lines.

a. Ceylon. From the Rev. J. Wenham's collection.

## Australia.

### 23. COSSUS CALIGINOSUS.

Mas. *Obscure cinereus; caput nigricans, supra albidum; palpi nigri, caput superantes; antennæ fulvæ, subpectinatæ, thorace multo longiores; thorax cervinus, albo nigroque fasciatus; pedes ex parte albido hirti, tarsis albido fasciatæ; alæ anticæ lituris variis transversis nigris maculisque duabus aut tribus discalibus ferrugineis; posticæ fusco subreticulatae.*

*Male.* Dark cinereous. Head blackish, whitish above. Palpi black, extending beyond the head; third joint elongated, cylindrical. Antennæ tawny, minutely pectinated, much longer than the thorax. Thorax in front pale fawn-colour, bordered with white, and on the hind side also with black. Legs partly clothed with whitish hairs; tarsi with whitish bands. Fore wings with various and irregular transverse black marks, and with two or three small ferruginous spots in the disk. Hind wings with brown and more numerous marks, and slightly reticulated. Length of the body 11 lines; of the wings 32 lines.

a. Van Dieman's Land. Presented by Morton Allport, Esq.

### 24. COSSUS LONGICORNIS.

Mas. *Canus fusco varius; palpi caput non superantes; antennæ mediocriter pectinatæ, corporis dimidio longiores; thoracis discus albidus, nigro bivittatus et bimaculatus; abdominis discus ex parte fuscus; tarsorum articuli apice albidi; alæ anticæ fasciis tribus perobliquis diffusis fuscis; posticæ fuscae, nitentes, apud costam albidae.*

*Male.* Dark cinereous, or hoary mingled with brown. Palpi extending as far as the head; third joint nearly cylindrical, conical at the tip, rather shorter than the second. Antennæ moderately pectinated, very much longer than the thorax and rather more than half the length of the body. Disk of the thorax mostly whitish, with two diverging black stripes, which are united in front, and are each accompanied by a black spot on the outer side. Abdomen partly brown in the disk. Tarsal joints with whitish tips. Fore wings with three very oblique somewhat diffuse brown bands. Hind wings brown, shining, whitish along the costa; ciliæ hoary, mingled with brown. Length of the body 17 lines; of the wings 44 lines.

a. Sydney. From Mr. Lambert's collection.

## Country unknown.

## 25. COSSUS SUBOCELLATUS.

Fœm. *Testacea; palpi nigricantes, caput non superantes; antennæ fulvæ, subserratae, thoracis longitudine; alæ nigro subreticulatae, anticæ fasciis duabus subapicalibus arcuatis unaque basali recta nigris, posticæ supra fuscescentes.*

— subocellata, Stephens, MSS.

*Female?* Dull testaceous. Palpi blackish, extending as far as the head; third joint elongate-conical, acute. Antennæ tawny, very minutely serrated, as long as the thorax. Abdomen with black bands. Fore wings imperfectly reticulated with black, with a straight slightly oblique black band near the base, and with two slender curved black subapical bands, one in front, the other behind. Hind wings slightly reticulated, brownish above. Length of the body 7 lines; of the wings 18 lines.

a. —? From Mr. Children's collection.

## 26. COSSUS BASALIS.

Mas. *Albidus, sat validus; caput, palpi et antennæ nigricantia; palpi caput non superantes; antennæ subpectinatae, thorace paullo longiores; abdomen alas posticas plus dimidio superans; alæ angustæ, subreticulatae, anticæ fasciis duabus nigris, una basali, altera arcuata subapicali.*

*Male.* Whitish, moderately stout. Head, palpi and antennæ blackish. Palpi extending as far as the head; third joint acute, conical. Antennæ slightly pectinated, a little longer than the thorax. Abdomen extending for more than half its length beyond the hind wings. Wings narrow, slightly reticulated with minute transverse black marks. Fore wings with a black band near the base, and with a black curved subapical band. Length of the body 6 lines; of the wings 14 lines.

a. —?

## Genus 2. ENDAGRIA.

“Corpus debilis, villosum. Palpi squamosi-hirsuti. Antennæ sat elongatæ, maris unidentatae, fæminæ ciliatae. Abdomen gracilis, fæminæ oviductu exerto. Alæ breviores, latiusculæ, cinereo albidoque variegatae.”—Boisd.

Bombyx, p., Hübn.; Borkh.; Esp.; Scriba; Brahm.  
Cossus, p., Ochs.; Meig.

*Dyspessa, Hübn. Verz. Schmett.* 194.

*Endagria, Boisd. Gen. et Ind. Meth.* 76. *Herr.-Schäff.*

### 1. ENDAGRIA PANTHERINA.

*Alæ anticæ albo nitidæ, pallide cinereo maculatæ; posticæ cinereæ.*

*Endagria pantherina, Boisd. Gen. et Ind. Meth.* 76, 608. *Herr.-Schäff. Samml. Eur. Schmett.* ii. 13, 7.

*Bombyx Pantherina, Hübn. Bomb.* pl. 36, f. 157, 158; *Beitr.* ii. 1, 25, pl. 4, f. X.

*Bombyx Hepialica, Hübn. Bomb.* 140, 1; *Beitr.* ii. 1, 123. *Borkh. Eur. Schmett.* iii. 469, 38, 39.

*Bombyx ulula, Scriba, Beitr.* ii. 131, pl. 9, f. 1. *Esp. Schmett.* iii. 42, pl. 86; *Cont. Bomb.* 7, f. 4, 5; var. pl. 83, *Cont.* 14, f. 9, 10. *Borkh. Eur. Schmett.* iii. 142, 38; *Rhein. Mag.* i. 650, 5. *Brahm, Ins. Kal.* 336, 223.

*Dyspessa pantherina, Hübn. Verz. Schmett.* 194, 1992.

\_\_\_\_\_, *Pap. d'Eur.* v. 86, pl. 193, f. 254.

*Cossus pantherinus, Ochs. Schmett. von Eur.* iii. 96, 4.

*Cossus ulula, Meig. Syst. Beschr. Eur. Schmett.* ii. 187, 4, pl. 76, f. 3; *Handb.* 116, 29.

Hungary.

### 2. ENDAGRIA SALICICOLA.

*Alæ subtus nigricantes; anticæ supra lutescente albidae, ciliis nigro variis, serie transversa media punctorum nigrorum; postice nigrae, ciliis albidis.*

*Cossus Salicicola, Eversm. Bull. Soc. Imp. Nat. Mosc.* xxi. 3, 211, 4.

*Cossus Pantherinus, Eversm. Faun. Lepid.* 128.

Wolsk, Saratovisch Province.

### Genus 3. CULAMA.

*Mas. Corpus robustum. Proboscis obsoleta. Palpi porrecti, graciles, cylindrici, longiusculi, caput sat longe superantes. Antennæ mediocriter pectinatae, corporis dimidio non breviores. Abdomen alas posticas plus triente superans. Pedes validi, pilosi; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ mediocriter latæ; anticæ apud costam subconvexæ, apice rotundatæ, margine exteriore mediocriter obliquæ.*

Body robust. Proboscis obsolete. Palpi porrect, slender, cylindrical, rather long, extending some distance beyond the head;

third joint more slender than the second and about half its length. Antennæ moderately pectinated, very much longer than the thorax and about half the length of the body. Abdomen extending for more than one-third of its length beyond the hind wings. Legs stout, pilose; hind tibiæ with four moderately long spurs. Wings moderately broad. Fore wings very slightly convex in front, rounded at the tips, moderately oblique along the exterior border; second inferior vein about as far from the first as from the third; third rather further from the fourth than from the second.

This genus and *Cossodes* connect the *Cossidæ* with *Cryptophasiæ*, and through the latter with the *Micro-Lepidoptera*.

### 1. CULAMA AUSTRALIS.

Mas. *Murina*; *caput et thorax nigricantia*; *alæ anticæ strigulis plurimis transversis nigris*; *posticæ pallidiores, apud costam subalbidae*.

*Cossus australis, Stephens, MSS.*

*Male.* Mouse-colour. Head and thorax blackish. Fore wings with many transverse black streaks, which towards the tips are narrower and more continuous than elsewhere. Hind wings paler than the fore wings, almost whitish along the costa. Length of the body 11 lines; of the wings 26 lines.

*a. Australia.* From Mr. Argent's collection.

### Genus 4. COSSODES.

*Fæm.* Corpus crassum. Palpi breves, caput non superantes; articulus 3us parvus. Antennæ setaceaæ, simplices, thorace paullo longiores. Abdomen alas posticas plus dimidio superans. Pedes validi, dense pilosi; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ sat angustæ, non longæ; anticæ apud costam vix convexæ, apice rotundatae, margine exteriore mediocriter obliquæ.

*Cossodes, White, Appendix, Capt. Grey's Journ. Exped. Discov. Austral.*

*Turoma, Boisd. Herr.-Schæff Lép. Exot. Sp. Sér. 1.*

*Female.* Body thick. Palpi porrect, extending as far as the head; third joint small, slender, somewhat conical. Antennæ setaceous, simple, a little longer than the thorax. Abdomen extending for rather more than half its length beyond the hind wings. Legs stout, densely pilose; hind tibiæ with four moderately long spurs. Wings rather narrow, not long. Fore wings hardly convex in front, rounded at the tips, moderately oblique along the exterior border;

first, second and third inferior veins near together at the base; fourth not far from the third.

This genus seems to be fully as nearly allied to *Cryptophasia*, and through it to the *Micro-Lepidoptera*, as to the *Cossidæ*, and therefore is only placed provisionally in the latter family.

### 1. COSSODES LYONETII.

Fœm. *Cyaneus*; thorax plagis duabus lateralibus albis, postice viride; abdomen viride, maculis quatuor albis dorsalibus transversis posticis; alæ anticæ fasciis quatuor incompletis albis, posticæ purpureæ, apud marginem interiorem cyaneæ.

*Cossodes Lyonetii*, White, *Append. Capt. Grey's Journ. Exped. Discov. Austral.* ii. 477. Fig. *Entomologist*, 350, 42.

*Turoma Lyonetii*, Boisd. *Herr.-Schæff. Lép. Exot. Sp. Sér. 1*, f. 149.

*Female*. Blue. Thorax with a very large white spot on each side; hind part green. Abdomen green, with four white transverse dorsal spots on the apical half. Fore wings with four white bands; the first, second and third broad, abbreviated and interrupted; the fourth slender, apical and macular. Hind wings purple, blue along the interior border.

New Holland.

a. King George's Sound, Australia. Presented by His Excellency Sir George Grey.

### Genus 5. GIVIRA.

*Mas.* Corpus sat validum. Proboscis obsoleta. Palpi brevissimi; articulus 3us minimus. Antennæ mediocriter pectinatae, thorace breviores. Abdomen alas posticas plus dimidio superans. Pedes validi, pilosi; tarsorum articuli dense fasciculati; tibiæ posticæ calcaribus quatuor parvis. Alæ breviusculæ, sat angustæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore mediocriter obliquæ.

*Male*. Body moderately stout. Proboscis obsolete. Palpi very short, not extending near so far as the head; third joint very small. Antennæ moderately pectinated, shorter than the thorax. Abdomen extending for more than half its length beyond the hind wings. Legs stout, pilose; joints of the tarsi thickly tufted; hind tibiæ with four rather small spurs. Wings rather short and narrow. Fore wings straight in front, rounded at the tips, moderately oblique

along the exterior border; first and second inferior veins nearly contiguous at the base; third very near the second, rather remote from the fourth.

### I. GIVIRA TRISTIS.

*Mas.* *Obscure fusca; caput et antennæ nigra; alæ anticæ fasciis duabus indistinctis obliquis subarcuatis nigricantibus; posticæ albidae, macula postica fusca.*

*Male.* Dark brown. Head and antennæ black. Fore wings with two indistinct oblique slightly curved blackish bands beyond the middle, the exterior one rather broader than the other. Hind wings whitish, with a brown mark near the hind end of the exterior border. Length of the body 16 lines; of the wings 8 lines.

*a. ——?*

### Genus 6. LANGSDORFIA.

*Mas.* Corpus sat validum. Proboscis obsoleta. Palpi porrecti, caput paullo superantes. Antennæ mediocriter pectinatae, thorace vix breviores. Abdomen alas posticas plus dimidio superans. Pedes sat validi; tibiæ anticeæ subtus dentatae, posticeæ calcaribus quatuor mediocriter longis. Alæ sat angustæ; anticæ apud costam subrectæ, apice vix acuminatae, margine exteriore sat obliquo.

*Langsdorfia, Hübn. Samml. Exot. Schmett. ii. Verz. Schmett.*

Body moderately stout. Proboscis obsolete. Palpi porrecti, extending a little beyond the head; third joint conical, small. Antennæ moderately pectinated, hardly as long as the thorax. Abdomen extending for about two-thirds of its length beyond the hind wings. Legs moderately stout; fore tibiæ dentate beneath; hind tibiæ with four moderately long spurs. Wings rather narrow. Fore wings almost straight in front, hardly acuminate and very slightly falcate at the tips, rather oblique along the exterior border; first and second inferior veins nearly contiguous; third full six times further from the fourth than from the second.

### I. LANGSDORFIA FRANCKII.

*Fusca; antennæ nigricantes; alæ anticæ plaga basali fasciaque lata marginali nigro-fuscis, maculis duabus basim versus argenteis guttisque costalibus nigris.*

*Langsdorfia Franckii, Hübn. Samml. Exot. Schmett. ii. Lep. iii. Phal. iii. Fodicantes, i. Teredines, A. Crassæ, 2, f. 1, 2.*

Brown. Antennæ black. Fore wings with a diffuse dark brown patch near the base and with a broad marginal dark brown band; a row of black dots along the costa and two silvery marks near the base. Length of the body 14 lines; of the wings 28 lines.

*a.* Brazil. Presented by E. Doubleday, Esq.

*b.* Brazil.

### Genus 7. ZEUZERA.

Corpus robustum. Palpi brevissime aut mediocriter longi. Antennæ thorace breviores. Abdomen longiusculum, alas posticas longe superans. Pedes validi, subnudi; tibiæ vix calcaratæ. Alæ angustæ; anticæ subacuminatæ, apud costam rectæ, margine exteriore perobliquo. *Mas.*—Antennæ latissime pectinatæ, dimidio apicali simplices. *Fæm.*—Antennæ simplices, graciles. Oviductus conspicuus.

*Latagia*, Hübn. Verz. Schmett. 196.

*Zeuzera*, Latr.; Leach; Samou.; Steph.; Curt.; Boisd.; Meig.; &c.

*Phalæna*-*Noctua*, p., Linn.

*Cossus*, p., Fabr.; Ochs.

*Hepialus*, p., Schr.

*Bombyx*, p., Haw.

*Morpheis*, p., Hübn. Verz. Schmett. 196.

*Chalcidica*, Hübn. Verz. Schmett. (*Phalæna Fodicantes Teredines Graciles*), 197.

*Xyrena*, Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1.

*Eodoxyla*, Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1.

*Cossus*, p., Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1.

Body stout. Palpi very short or of moderate length. Antennæ slender, shorter than the thorax. Abdomen rather long, extending far beyond the hind wings. Legs stout, almost bare; hind tibiæ with two very minute apical spurs. Wings narrow. Fore wings slightly acuminated, straight along the costa, extremely oblique along the exterior border; discal areolet intersected by a forked veinlet; second superior vein forked at half its length; second inferior vein more than twice further from the third than from the first; third a little further from the fourth than from the second. *Male.*—Antennæ very deeply pectinated, bare from half the length to the tips. *Female.*—Antennæ bare. Oviduct exserted.

## Europe.

## 1. ZEUZERA ÆSCULI.

*Alæ nudiusculæ niveæ, punctis numerosis cæruleo-nigris, thorace maculis duodecim atris.*

Zeuzera Æsculi, *Latr. Gen. Cr. et Ins.* iv. 217. *Steph. Ill. Brit. Ent. Haust.* ii. 8, 1. *Meig. Syst. Beschr. Eur. Schmett.* ii. 188, 2, pl. 76, f. 4; *Handb.* 116, 30. *God. Lép. de France,* iv. 54, pl. 3, f. 2, 3. *Herr.-Schæff. Samml. Eur. Schmett.* iii. 12, 5.

Phalæna-Noctua Æsculi, *Linn. Syst. Nat.* i. 2, 833, 83. *Gmel. ed. Syst. Nat.* i. 5. *Donov. Nat. Hist. Brit. Ins.* v. 27, pl. 152. *Naturf.* xii. 73, 4, pl. 2, f. 7, 8.

Phalæna-Noctua Pyrina, *Linn. Faun. Suec.* 1150.

Phalæna-Cossus Æsculi, *Turt. Syst. Nat.* iii. 342.

Phalæna-Bombyx Æsculi, *Stew. El. Nat. Hist.* ii. 157.

Cossus Æsculi, *Fabr. Ent. Syst.* iii. 2, 4, 4. *Schæff. Icon. Nomencl. Panz.* 44. *Ochs. Schmett. von Eur.* iii. 99, 6.

—, *Mouffet, Insect. Theat.* 92, fig. *infra.* *Roës. Ins.* iii. 276, pl. 48, f. 5, 6. *Schæff. Icon.* pl. 31, f. 8, 9. *Pap. d'Eur.* v. 69, pl. 190, f. 247. *Harris, Exp.* pl. 2, f. 3, 4.

Latagia Æsculi, *Hüb. Verz. Schmett.* 196, 2007.

Phalæna Æsculi, *Berl. Ges. Naturf.* iii. 30, 1, pl. 1, f. 1, 2.

Phalæna Pyrina, *Naturf.* ix. 114, 36. *Hufnagel, Tab. im Berl. Mag.* iii. 3, 290, 36, 4; 422.

Bombyx Æsculi, *Wien. Verz.* 60, 3. *Hüb. Bomb.* 152, 2, pl. 47, f. 202. *Illig. N. Ausg. dess.* i. 128, 3. *Esp. Schmett.* iii. 311, pl. 62, f. 1—7. *Borkh. Eur. Schmett.* iii. 363, 136; *Rhein. Mag.* i. 373, 234. *Fuessl. Schweiz. Ins.* 36, 688; *N. Mag.* ii. 60, 38. *Vieweg, Tab. Verz.* i. 49, 37. *Lang. Verz.* ii. 108, 824. *Brahm, Ins. Kal.* 383, 260. *Schwarz. Raup.* 5, 56, 267, 714, 766.

Noctua Hippocastani, *Poda, Mus. Græc.* 88, 16. *Rossi, Faun. Etr.* ii. 18, 373.

Hepialus Æsculi, *Schr. Faun. Boic.* ii. 1, 300, 1492.

Phalæna hilaris, *Fourcroy, Ent. Par.*

a—i. England. From Mr. Stephens' collection.

j—n. England.

o, p. Europe. From M. Becker's collection.

q: Europe. Presented by Capt. Sir E. Belcher.

r, s. Europe. From Mr. Children's collection.

t—v. France.

## North America.

### 2. ZEUZERA CANADENSIS.

*Mas. Straminea; alæ anticæ strigis crebris transversis fuscis, disco antice albo postice cinerascente; posticæ albæ venis stramineis.*

*Zeuzera Canadensis*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1, f. 168.*

*Male.* Straw-colour. Fore wings thickly covered with little transverse brown streaks; fore part of the disk white, hind part grayish. Hind wings white, with straw-coloured veins.

Quebec.

### 3. ZEUZERA PYRINA.

*Nivea; frons cyanea; thorax punctis duodecim cyaneis; femora antica supra cyanea; alæ anticæ punctis plurimis per fascias dispositis nigris, costa subferruginea.*

*Hepialus pyrinus*, *Fabr. Sp. Ins. ii. 208, 6; Mant. Ins. ii. 135, 8.*

*Phalæna-Hepialus Pyrinus*, *Gmel. ed. Syst. Nat. i. 5, 2618, 1305.*

*Cossus pyrinus*, *Fabr. Ent. Syst. iii. 2, 5, 6.*

Spots on the thorax thus:—2, 4, 4, 2.

North America.

## Mexico.

### 4. ZEUZERA REDTENBACHII.

*Cinerea; alæ anticæ fasciis obliquis vittisque linearibus obscurioribus; posticæ fascia submarginali obscuriore.*

*Zeuzera (Cossus) Redtenbachii*, *Hammerschmidt Naturwissenschaftliche Abhandlungen von Haidinger Wien. ii. (1848), 151, pl. 14, f. 1—8.*

Mexico.

## South America.

### A. Statura magna.

- |  |                                 |
|--|---------------------------------|
| <i>A. Alæ posticæ vitta subinterrupta fusca.</i> | <i>- putrida, Perch.</i>        |
| <i>B. Alæ posticæ vitta lata integra fusca.</i>  | <i>- Xylotribus, Boisd.</i>     |
| <i>C. Alæ posticæ non vittatæ.</i>               | <i>- - - Pyracmon, Cram.</i>    |
| <i>B. Statura parva.</i>                         | <i>- - - - - cognata, Walk.</i> |

## 5. ZEUZERA PUTRIDA.

*Albida; alæ anticæ fascia lata diffusa pallide cinerea nigro stri-gata et ex parte reticulata, vitta nigra discali subundulosa guttisque marginalibus nigris; posticæ nigro strigatæ et gut-tatæ vittaque lata cinerea incisa discali.*

*Cossus Palmarum, Boisd. Herr.-Schaff. Lép. Exot. Sp. Nov. Sér. 1, pl. 8, f. 36.*

*Zeuzera putrida, Percheron, Genera des Insectes, Lép. pl. 4, f. 1.*

Whitish. Fore wings with a broad diffused pale gray band at one-third of the length, covered, and in some parts reticulated with numerous black transverse streaks and with a slightly undulating black discal stripe, which extends from a little before half the length nearly to a little behind the tip; a row of black dots along the exterior border. Hind wings streaked and dotted like the fore wings, gray towards the base and with a broad gray discal stripe, which is deeply notched in front beyond half its length.

*a. Brazil.* From Mr. Mornay's collection.

*b, c. Brazil.* From Mr. Stevens' collection.

*d, e. Brazil.* From Mr. Children's collection.

## 6. ZEUZERA XYLOTIBUS.

*Albida; thorax cinereo fuscoque varius; abdomen fuscum; alæ ex parte fusco reticulatae, anticæ apud costam fusco suffusæ, vitta discali interrupta subramosa obscure fusca; posticæ cinereo-fuscæ, vitta latissima marginali cinerea.*

*Cossus Xylotribus, Boisd. Herr.-Schaff. Lép. Exot. Sp. Nov. Sér. 1, pl. 8, f. 37, 38.*

Whitish. Thorax marked with gray and brown. Abdomen brown. Wings partly reticulated with brown. Fore half of the fore wings tinged with brown, which is darkest towards the base and is divided from the whitish part by a dark brown irregular interrupted subramose stripe. Hind wings grayish brown, with the exception of a very broad marginal gray stripe.

Brazil.

## 7. ZEURERA PYRACMON.

*Cervino-alba; alæ fusco transverse strigulatae; anticæ vitta basali costali furcata, macula costali vittisque tribus abbreviatis dis-calibus nigricantibus.*

**Sphinx Pyracmon**, *Cram. Pap. Exot.* iii. 169, pl. 287, f. B.  
**Morpheis Pyracmon**, *Hübn. Verz. Schmett.* 196, 2004.  
 Surinam.

### 8. ZEUZERA COGNATA.

*Mas. Alba; antennæ nigræ, ramis fulvis; alæ guttis marginalibus fuscis, anticæ fascia discali subincisa basim versus costali fusca.*

*Male.* White. Antennæ black, with tawny branches. Legs blackish. Wings with minute brown marginal dots. Fore wings with a brown discal stripe, which is costal towards the base and is composed of confluent dots. Hind wings with an indistinct pale brown discal streak. Length of the body 11 lines; of the wings 24 lines. Very nearly allied to *Z. fracta*.

*a. Honduras.* From Mr. Dyson's collection.

### Africa.

- A. Alæ metallicæ, maculis flavis. - auroguttata, *Herr.-Schæff.*
- B. Alæ albidae, maculis obscuris.
  - A. Alæ anticæ fusco variæ.
    - A. Alæ anticæ non vittatæ.
      - a. Alæ anticæ fascia subapicali.
        - i. Alæ anticæ fascia basali nigricante. - moderata, *Walk.*
        - ii. Alæ anticæ fascia nulla basali. - capensis, *Walk.*
      - b. Alæ anticæ non fasciatæ. - - - strigulosa, *Walk.*
    - b. Alæ anticæ vittatæ. - - - inclusa, *Walk.*
  - B. Alæ anticæ cervino variæ. - - Boisduvalii, *Feisth.*

### 9. ZEUZERA AUROGUTTATA.

*Fœm. Nigra; thorax margine luteo nigro quadriguttato; abdomen guttis basalibus apiceque luteis, maculis trigonis lateralis cyaneis; alæ anticæ virides, flavo guttatæ, basi cyaneæ; posticæ nigrae, costa flava, margine interiore flavo guttato.*

*Zeuzera auroguttata*, *Herr.-Schæff. Lép. Exot. Sp. Sér. 1, f. 173.*

*Female.* Black. Thorax with a luteous border, on each side of which are two black dots. Abdomen with four luteous dots at the base, luteous towards the tip, and with a blue triangular spot on each side of every segment. Fore wings green, blue at the base, thickly covered with yellow dots, and towards the base and along

the costa with luteous dots. Hind wings black, yellow along the costa and with yellow dots about the basal half of the interior border.

Sierra Leone.

#### 10. ZEUZERA MODERATA.

Fœm. *Albida ; caput et thorax cupreo conspersa ; palpi graciles, breves, articulo 3o minino ; alæ strigulis plurimis transversis nigricantibus, anticæ apud costam ex parte reticulatæ fascia brevi arcuata subapicali nigra ; posticæ subreticulatæ.*

*Female.* Whitish. Head and thorax with a few reddish cupreous plumes. Palpi slender, not extending so far as the head; third joint conical, very minute. Wings with numerous very minute transverse blackish streaks. Fore wings partly somewhat reticulated along the costa, with a short curved subapical black band. Hind wings slightly reticulated. Length of the body 14—18 lines; of the wings 30—38 lines.

a, b. Sierra Leone. Presented by the Rev. D. F. Morgan.

#### 11. ZEUZERA CAPENSIS.

Fœm. *Albida ; thorax nigro punctatus ; abdomen punctis obscuris fasciisque pallidioribus fuscis ; pedes nigri ; alæ nigro punctatæ, anticæ fascia arcuata interrupta subapicali guttisque marginalibus nigris, posticæ guttis marginalibus nigricantibus.*

*Female.* Whitish. Thorax flecked with black, whitish in front and on each side. Abdomen with dark brown flecks and with pale brown bands, darker beneath. Legs black. Wings very minutely flecked with black, paler towards the tips, with an interrupted curved subapical black band, and with black dots along the exterior border. Hind wings rather paler than the fore wings, with blackish marginal dots. Length of the body 17 lines; of the wings 40 lines.

a. Port Natal. From Mr. Stevens' collection.

## 12. ZEUZERA INCLUSA.

Fœm. *Albida*; antennæ subpectinatæ ramis nigris; thorax nigro conspersus; alæ anticæ strigulis transversis luteis non nullisque nigricantibus subreticulatae, guttis costalibus nigricantibus vittisque tribus fuscis, posticae fusco reticulatae.

*Female.* Whitish. Antennæ very minutely pectinated to the tips, with black branches. Thorax flecked with black. Fore wings imperfectly reticulated with luteous and with some blackish minute transverse streaks; a row of blackish costal dots; three brown stripes, the fore one short, the middle one joined at each end to the hind one, which occupies the interior border. Hind wings reticulated with brown. Length of the body 13 lines; of the wings 24 lines.

a. Port Natal. From M. Gueinzius' collection.

## 13. ZEUZERA STRIGULOSA.

Mas. *Sordide albida*; palpi et antennæ nigra; alæ anticæ strigulis transversis plurimis guttisque costalibus nigris.

*Male.* Dingy whitish. Palpi and antennæ black. Fore wings with very numerous transverse little black streaks, and with black dots along the costa. Length of the body 8 lines; of the wings 18 lines.

a. Cape. From M. Dregé's collection.

## 14. ZEUZERA BOISDUVALII.

Mas. *Alba, cervina varia*; alæ anticæ strigulis transversis stipatis cervinis.

*Zeuzera Boisduvalii*, Feisth. Herr.-Schäff. Lép. Exot. Sp. Sér. 1, f. 167.

*Male.* White, partly pale fawn-colour. Fore wings with very numerous transverse pale fawn-coloured marks. Length of the body 9 lines; of the wings 16 lines.

a. Sierra Leone. Presented by the Rev. D. F. Morgan.

b. Ashanti. Presented by E. Doubleday, Esq.

## Asia.

A. Corpus totum metallicum.

- A. Alæ anticæ metallicæ maculis flavis. - Hyphinoe, Cram.
- B. Alæ anticæ luteæ, maculis metallicis. - Mineus, Cram.
- B. Corpus pallidum, maculis metallicis.
- A. Alæ non vittatæ.
- A. Alæ anticæ plagiatae. - - - signata, Walk.
- B. Alæ anticæ non plagiatae.
  - i. Alæ posticæ plagiatae.
    - \* Alæ posticæ albidae. - paucipunctata, Steph.
    - \*\* Alæ posticæ fuscæ. - - leuconota, Steph.
  - ii. Alæ posticæ non plagiatae.
    - \* Alæ anticæ confertissime strigatae. - indica, Boisd.
    - \*\* Alæ anticæ parce strigatae.
      - † Thorax maculatus. - - - conferta, Walk.
      - †† Thorax non maculatus. - - pusilla, Walk.
- B. Alæ anticæ vittatæ. - - - Asylas, Cram.

## 15. ZEUZERA HYPHINOE.

Fœm. *Cyaneo metallica*; alæ flavo marginatae, anticæ flavo maculatae.

Phalæna Hyphinoe, Cram. Pap. Exot. ii. 91, pl. 154, f. B.

Bombyx Hyphinoe, Fabr. Sp. Ins. ii. 181, 64; Mant. Ins. ii. 116, 81; Ent. Syst. iii. 436, 91. Oliv. Enc. Méth. v. 56, 118.

Phalæna-Bombyx Hyphinoe, Gmel. ed. Syst. Nat. i. 5, 2417, 512.

Chalcidica Hyphinoe, Hübn. Verz. Schmett. 197, 2010.

Amboina.

## 16. ZEUZERA MINEUS.

*Viridis, nitens*; alæ luteæ; anticæ basi, maculis marginalibus vittaque discali interrupta aut subinterrupta viridibus; posticæ disco maculisque marginalibus viridibus.

Phalæna Mineus, Cram. Pap. Exot. ii. 52, pl. 131, f. D. Donov. Ins. India, pl.

Chalcidica Minea, Hübn. Verz. Schmett. 197, 2011.

Zeuzera viridicans, Eschscholtz, Kotzebue Reise, 219, pl. f. 29.

Batavia. Manilla.

- a. Silhet. Presented by E. Doubleday, Esq.
- b, c. Silhet. From Mr. Argent's collection.
- d. North India. From the Rev. J. Stainforth's collection.
- e. North India. From Mr. James' collection.
- f. —? From Mr. Children's collection.

### 17. ZEUZERA INDICA.

*Mas et fœm. Alba; thorax maculis viridibus aut cyaneis; abdomen viridi aut cyaneo fasciatum; pedes virides aut cyanei; alæ anticæ guttis marginalibus, maculis subcostalibus strigisque transversis discalibus cyaneis aut viridibus; posticæ strigis transversis discalibus fuscis guttisque marginalibus cyaneis aut viribibus.*

*Zeuzera indica*, Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1, f. 166.

*Male.* White. Thorax with three green spots on each side, forming two short stripes, which diverge hindward. Abdomen with green bands. Wings with green marks like those of the female. *Female.*—White. Head black in front. Antennæ black, white towards the base. Hind part of the thorax with four blue spots. Abdomen with blue bands. Legs blue. Fore wings with marginal blue dots, with subcostal blue spots, and with discal transverse blue streaks. Hind wings with some brown transverse discal streaks, and with blue dots along the exterior border. Length of the body 10—14 lines; of the wings 22—36 lines.

- a. Silhet. From Mr. Argent's collection.
- b. Himalaya Mountains. From Mr. Leadbeater's collection.
- c. North India. From Capt. Reid's collection.

### 18. ZEUZERA CONFERTA.

*Fœm. Albida; antennæ nigræ; thorax fasciis duabus interruptis viridibus; abdomen e maculis viridibus trivittatum; pedes virides; alæ strigulis plurimis transversis viridibus aut æneis guttisque marginalibus viridibus, anticæ apud disci partem strigulis nullis.*

*Female.* Whitish. Antennæ black. Thorax with two interrupted green stripes. Abdomen with three rows of green spots. Legs mostly green. Wings with very numerous minute transverse green or æneous streaks, and with green dots along the border; part of the disk of the fore wings without streaks. Length of the body 13 lines; of the wings 28 lines.

- a. Silhet. Presented by E. Doubleday, Esq.

## 19. ZEUZERA SIGNATA.

**Mas.** *Albida, nigro varia ; antennæ pedesque nigra ; alæ nigro subreticulatæ, anticæ guttis costalibus majoribus bene determinatis plague discali nigris.*

**Male.** Whitish, varied with black. Antennæ and legs black. Wings imperfectly reticulated with minute transverse black streaks. Fore wings with larger and more regular black marks along the costa, and with a black patch in the disk. Length of the body 18 lines ; of the wings 40 lines.

*a.* North India. Presented by W. Wilson Saunders, Esq.

## 20. ZEUZERA LEUCONOTA.

*Cinerea ; thorax albus ; antennæ nigræ ; alæ nigro subtessellatæ, apice albæ ; anticæ margine interiore toto, posticæ plaga marginali, albisi.*

*Zeuzera leuconota, Stephens, MSS.*

Gray. Thorax white. Antennæ black. Wings minutely and imperfectly tessellated with black. Fore wings white at the tips and along the interior border, where the line between the gray and the white is irregular and much indented. Hind wings white at the tips and with a white patch on the interior border. Length of the body 18—24 lines ; of the wings 48—64 lines.

*a, b.* Ceylon. Presented by R. Templeton, Esq.

*c.* Silhet. From the Rev. J. Stainforth's collection.

## 21. ZEUZERA PAUCIPUNCTATA.

**Fœm.** *Cuprea ; antennæ nigræ ; alæ albidae, anticæ maculis apud costam et apud marginem interiorem cupreis aut viridibus, posticæ strigis obliquis discalibus maculisque marginalibus cupreis.*

*Zeuzera paucipunctata, Stephens, MSS.*

**Female.** Body somewhat cupreous. Antennæ black. Wings whitish. Fore wings with cupreous or with green spots, which are most prevalent along the interior border and along the costa. Hind

wings with some cupreous oblique streaks towards the interior border, which is adorned with cupreous spots. Length of the body 19 lines; of the wings 44 lines.

a. Silhet. Presented by E. Doubleday, Esq.

## 22. ZEUZERA ASYLAS.

*Nivea ; caput fulvum ; thorax striga antinca nigra lineaque dorsali lata fulva ; alæ anticæ strigis plurimis transversis abbreviatis nigris.*

Phalæna Asylas, *Cram. Pap. Exot.* ii. 62, pl. 137, f. c.

Hepialus scalaris, *Fabr. Sp. Ins.* ii. 208, 4; *Mant. Ins.* ii. 135, 7.

Phalæna-Hepialus scalaxis, *Gmel. ed. Syst. Nat.* i. 5, 2618, 1304.

Cossus scalaris, *Fabr. Ent. Syst.* iii. 2, 5, 5.

Phalæna scalaris, *Donov. Ins. India*, pl.

Morpheis scalaris, *Hüb. Verz. Schmett.* 196, 2005.

China.

*Var.?* mas. *Albida, palpis antennisque nigris, thorax vittis quatuor pallide luteis, alæ anticæ vittis duabus reticulatis nigris.*

*Male.* White. Palpi and antennæ black. Thorax with four pale luteous stripes. Fore wings with two imperfectly reticulated black stripes, and with a few occasional black transverse streaks on the disk between the stripes. Length of the body 8—10 lines; of the wings 16—20 lines.

a, b. North India. From Mr. James' collection.

c. North India. From Mr. Stevens' collection.

## 23. ZEUZERA PUSILLA.

Mas. *Albida ; palpi nigri ; alæ anticæ albido-testaceæ, strigulis nonnullis discalibus et costalibus nigris.*

*Male.* Whitish. Palpi black. Antennæ with black branches. Fore wings whitish testaceous, with some very minute transverse black streaks, which are mostly in the disk or along the costa. Length of the body 4—6 lines; of the wings 9—13 lines.

a—f. North India. From Mr. Stevens' collection.

### Australia.

A. Alæ anticæ fuscæ aut cinereæ.

*A. Alæ anticæ albo vittatæ.* - - - Eucalypti, Boisd.

*B. Alæ anticæ albo non vittatæ.* - - liturata, Donov.

*C. Alæ anticæ albo plagiatae.* - - nebulosa, Donov.

B. Alæ anticæ albæ.

*A. Alæ anticæ vittatæ.* - - - - - vittata, Walk.

*B. Alæ anticæ non vittatæ.* - - - - tigrina, Boisd.

### Group 1.

Corpus crassum. Palpi porrecti, breves. Antennæ thorace non breviores. Abdomen alas posticas dimidio superans. Pedes validi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ longæ, sat angustæ; anticæ vix acuminatæ, apud costam subconvexæ, margine exteriore perobliquo. *Mas.*—Antennæ plus dimidio basali late pectinatae. *Fœm.*—Antennæ subserratae.

Body thick. Proboscis obsolete. Palpi porrect, extending nearly as far as the head; third joint elongate-conical, slightly acuminate. Antennæ as long as the thorax. Abdomen extending for about half its length beyond the hind wings. Legs stout, pilose; hind tibiæ with two very minute apical spurs. Wings rather long and narrow. Fore wings hardly convex in front, hardly acuminate at the tips, extremely oblique along the interior border; second inferior vein more than twice further from the third than from the first; third more than twice further from the fourth than from the second. *Male.*—Antennæ deeply pectinated to somewhat beyond half the length, minutely serrated from thence to the tips. *Female.*—Antennæ simple.

### 24. ZEUZERA EUCALYPTI.

*Mas.* *Fusca; thorax lateribus albis intus nigro marginatis, fascia angulata ferruginea, macula antica cyanea strigaque nigra dorsali; abdomen fasciis quatuor albis angulatis; alæ anticæ nigro subreticulatae, vitta discali alba postice nigro marginata, venis ferrugineis; posticae ferrugineæ, apices versus nigro reticulatae.*

*Eodoxyla Eucalypti, Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1, f. 164.*

*Male.* Brown. Head white. Thorax white in front and on each side; inner part of the white bordered with black, adjoining which there is an angular ferruginous band, a blue spot in front of

the white, and a black dorsal streak on a paler ground. Abdomen with four angular anterior white bands. Fore wings with minute and imperfect black reticulations, and with a white discal stripe, which extends along the whole length, and is bordered with black on the hind side; veins ferruginous. Hind wings ferruginous; the oblique apical half reticulated with black between the veins.

Fœm. *Fusca; thorax vittis duabus obliquis nigris; abdomen lateribus ferrugineis maculisque dorsalibus testaceis trigonis; alæ anticæ nigro subreticulatae, vitta discali alba, venis ferrugineis; posticæ ferrugineæ, apices versus nigro reticulatae.*

*Eudoxyla D'Urvillii, Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1, f. 163.*

*Female.* Brown. Thorax with two diverging black stripes. Abdomen ferruginous along each side, and with a dorsal stripe of testaceous triangular spots. Oviduct slender, one-fourth of the length of the abdomen. Fore wings with minute and imperfect black reticulations, some of which are confluent, and with a white discal stripe, which extends along the apical half of the wing. Veins ferruginous. Hind wings ferruginous; the oblique apical half reticulated with black between the veins. Length of the body 24—34 lines; of the wings 70—90 lines.

*a, b.* Australia.

## 25. ZEUZERA LITURATA.

*Fusca; caput album; thorax marginibus vittaque dorsali albis nigro marginatis; abdomen macula apicali fasciisque quatuor incisis (1a interrupta) albis; alæ nigro subreticulatae, apud discum albidae, strigis duabus apices versus nigris; posticæ apud costam albidae.*

*Cossus lituratus, Donov. Epit. Ins. New Holl. pl. Boisd. Voy. de l'Astrolabe, Pt. 1, Lep. 235, 1.*

*Xyrena Camarinæ, Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1, f. 162.*

*Male.* Brown. Head white. Thorax white in front and on each side, and with a white dorsal stripe; inner part of the white bordered with black. Abdomen with a white spot at the tip, and with four indented white bands, the first interrupted. Wings with minute and imperfect blackish reticulations, whitish along the disk, on each side of which towards the tip there is a black streak. Hind wings whitish along the costa. Ciliæ alternately black and white.

- a—d.* Australia. Presented by Major-General Hardwicke.  
*e, f.* Van Dieman's Land. Presented by J. G. Children, Esq.  
*g—k.* Van Dieman's Land. Presented by R. Butler, Esq.  
*l.* Van Dieman's Land. From Mr. A. J. Smith's collection.  
*j—l.* Van Dieman's Land. Presented by Morton Allport, Esq.  
*m.* Swan River. From Mr. Stevens' collection.  
*n, o.* Van Dieman's Land.

### 26. ZEUZERA NEBULOSA.

*Alæ canæ, strigis numerosissimis reticulatis obscurioribus; anticæ apice arcu maculari nigro-fusco.*

Cossus nebulosus, *Donov. Epit. Ins. New Holl.* pl. *Boisd. Voy. de l'Astrolabe*, Pt. 1, Lep. 236, 2.

Z. lituratus, var.<sup>?</sup>

Botany Bay.

### 27. ZEUZERA VITTATA.

Mas. *Alba; caput luteum; palpi nigri; thorax fusco trivittatus; abdomen luteo varium, e guttis nigris trivittatum, fasciis subtus nigris; alæ anticæ vittis duabus guttularibus fuscis, gutta antica lineaque discali luteis.*

*Male.* White. Head luteous. Palpi and antennæ black. Thorax with three brown stripes. Abdomen partly luteous, with three rows of black dots; under side with black bands. Fore wings with two stripes of brown dots, one costal, the other discal and intersected by a luteous line; a luteous dot at two-thirds of the length on the hind border of the costal stripe. Length of the body 12 lines; of the wings 30 lines.

*a.* Swan River. Presented by Sir J. Richardson.

### 28. ZEUZERA TIGRINA.

Mas. *Albida, luteo varia; palpi et antennæ nigra; abdomen nigro fasciatum; alæ anticæ guttis stipatis nigris, posticæ nigricantes.*

Cossus tigrinus, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1, pl. 39, f. 40.*

*Male.* Whitish, partly tinged with luteous. Palpi and antennæ black. Abdomen with black bands. Fore wings very thickly covered with black dots. Hind wings blackish.

Fœm. *Alba*; antennæ fuscæ, subserratae; abdomen supra luteum fasciis nigris albisque; alæ guttis plurimis obscure fuscis, posticæ guttis confluentibus.

*Female.* White. Palpi black above towards the base. Antennæ brown, very minutely serrated. Abdomen above luteous, with black bands and with a few white bands. Wings with very numerous dark brown dots or small spots, which are confluent in the hind wings. Length of the body 7—11 lines; of the wings 16—24 lines.

- a. Australia. From Mr. Children's collection.
- b. Australia. From Mr. Milne's collection.
- c. Australia. From Mr. Cuming's collection.

### Country unknown.

#### 29. ZEUZERA FRACTA.

Mas. *Albida*; antennæ ramis fulvis; alæ lituris transversis fuscis, anticæ guttis costalibus nigris vittaque discali dislocata fusca.

*Male.* Whitish. Antennæ with tawny branches. Wings with numerous little transverse brown streaks. Fore wings with the streaks much darker than in the hind wings, with black dots along the costa, and with a discal brown dislocated stripe, which towards the base of the wing is contiguous to the costa. Length of the body 11 lines; of the wings 22 lines.

- a. ——?

### Genus 8. PHRAGMATÆCIA.

Corpus cylindricum. Caput conicum. Proboscis obsoleta. Palpi breves, caput non adæquantes. Abdomen longum, aut longissimum. Pedes validi, pilosi; tibiæ posticæ calcaribus 2 apicalibus minimis. Alæ angustæ; anticæ apud costam vix convexæ, apice rotundatæ, margine exteriore subobliquo. *Mas.*—Antennæ mediocriter pectinatæ, apices versus subpectinatæ, thorace paullo longiores. *Fœm.*—Antennæ subserratae, thorace non longiores.

Bombyx, p., *Hüb.* *Bomb.*; *Esp.*

*Zeuzera*, *Hüb.* *Verz. Schmett.* 196; *Ochs.*; *Steph. Brit. Ent.*; *Westw.*; *Meig.*

*Macrogaster*, *Duponch. Cat. Lep. d'Eur.*; *Steph. Cat. Brit. Lep.*

*Phragmatæcia*, *Newman, Zool.*

*Rhizoma*, *Boisd.*; *Herr.-Schæff.*

Body cylindrical. Head conical in front. Proboscis obsolete. Palpi short, not extending so far as the head. Abdomen long or very long, generally extending far beyond the hind wings. Legs stout, pilose; hind tibiae with two very small apical spurs. Wings narrow. Fore wings hardly convex in front, rounded at the tips, slightly oblique along the exterior border; first and second inferior veins nearly contiguous at the base; third about twice further from the fourth than from the second. *Male*.—Antennæ moderately pectinated, slightly pectinated towards the tips, a little longer than the thorax. *Female*.—Antennæ slightly serrated, not longer than the thorax.

### Europe.

#### 1. PHRAGMATÆCIA ARUNDINIS.

*Abdomen elongatum; alæ anticæ obtusæ, albido cinerascentes, fusco irroratæ, posticæ maris albidae, fæminæ fuscæ.*

*Bombyx Arundinis*, Hübn. *Bomb.* 151, 1, pl. 47, f. 200, 201.

*Bombyx Castaneæ*, Hübn. *Beitr.* ii. 1, 9, pl. 1, f. c.

*Cossus Arundinis*, Ochs. Schmett. von Eur. iii. 98, 5.

*Bombyx castanea*, Esp. Schmett. iii. 97, pl. 94. *Cont.* 25, f. 1.

\_\_\_\_\_, Pap. d'Eur. pl. 9, f. 257, bis.

*Zeuzera Arundinis*, Hübn. *Verz.* Schmett. 196, 2006. *Meig. Syst.*

*Beschr. Eur.* Schmett. ii. 188, 1, pl. 76, f. 4. *Steph. Entomologist*, 160. *Herr.-Schæff. Samml. Eur.* Schmett. *Text*, ii. 13, 6.

*Phragmatæcia Arundinis*, Newman, *Zool.*

*a—d.* England. From Mr. Foxcroft's collection.

*e, f.* England. From Mr. Stephens' collection.

*g.* Europe. From M. Becker's collection.

*h, i.* Europe.

### South America.

#### Group 1.

*Mas.* Corpus longum, sat gracile, fere cylindricum. Palpi pilosi, brevissimi. Antennæ mediocriter pectinatæ, apices versus subpectinatæ, thorace non longiores. Abdomen alas posticas dimidio superans. Pedes graciles, usque ad tarsorum apices pilosi; tibiæ posticæ calcaribus duobus parvis apicalibus. Alæ angustæ, anticæ apud costam rectæ, apice rotundatæ, margine exteriore sat obliquo; posticæ multo breviores.

*Male.* Body long, rather slender, nearly cylindrical. Palpi pilose, very short. Antennæ moderately pectinated to nearly half

the length, slightly pectinated from thence to the tips, not longer than the thorax. Abdomen extending for half its length beyond the hind wings. Legs slender, clothed to the tips of the tarsi; hind tibiæ with two rather small apical spurs. Wings narrow. Fore wings straight along the costa, rounded at the tips, oblique along the exterior border, very much longer than the hind wings; second inferior vein full six times further from the third than from the first; fourth springing from near the base of the wing, a little further from the third than the third is from the second.

## 2. PHRAGMATÆCIA ALBICANS.

*Mas. Albida*; *caput vittis duabus obliquis connexis furcatis fuscis*; *palpi ex parte fusci*; *antennæ fulvæ*; *thorax vitta antica fasciisque tribus pallide fuscis*; *abdominis latera et pedes ex parte pallide fuscescentia*; *alæ anticæ fasciis nonnullis angustis undulosis obliquis fuscis aut cinereis maculisque marginalibus fuscis aut cinereis, venis nigro fasciatis*; *posticæ apud margines subcinereæ*.

*Male.* Whitish. Head with two pale brown stripes, which each emit a branch to the base of the antenna, are united in front, and diverge beyond to the mouth. Palpi partly pale brown. Antennæ tawny. Thorax with a pale brown stripe in front and with three pale brown bands. Abdomen on each side and legs slightly and partly tinged with pale brown. Fore wings with several slender undulating and oblique brown or gray bands, which are most distinct towards the exterior border; the latter has a row of brown or blackish spots between the veins; veins with some black bands. Hind wings slightly tinged with gray towards the borders. Length of the body 8 lines; of the wings 15 lines.

Rio Janeiro. In Mr. Fry's collection.

## Group 2.

*Mas.* Corpus longiusculum, sat gracile. Antennæ late pectinatae, apices versus simplices. Abdomen alas posticas paullo superans. Pedes graciles, femoribus et tibiis pilosis, tibiis posticis calcaribus duobus apicalibus parvis. Alæ sat angustæ; anticæ apud costam vix convexæ, apice vix angulatæ, margine exteriore obliquo; posticæ apud costam dilatatae.

*Male.* Body rather long and slender. Palpi pilose, very short. Antennæ deeply pectinated to a little beyond half the length, simple from thence to the tips. Abdomen extending for one-fourth

of its length beyond the hind wings. Legs slender; femora and tibiae with moderately long hairs; hind tibiae with two small apical spurs. Wings rather narrow. Fore wings hardly convex along the costa, hardly angular at the tips, oblique along the exterior border; three inferior veins; first and second contiguous at the base; third rather remote. Hind wings much dilated along the costa; subcostal vein with a corresponding curve.

### 3. PHRAGMATÆCIA TESTACEA.

*Mas.* *Pallide lutea*; *antennæ fulvæ*; *pectus et pedes albida*; *abdomen testaceum, subtus albidum*; *alæ anticæ subtus posticæque totæ flavo-albæ*.

*Male.* Pale luteous. Antennæ tawny. Pectus and legs whitish. Abdomen testaceous, whitish beneath. Hind wings and under side of fore wings yellowish white. Length of the body  $6\frac{1}{2}$  lines; of the wings 16 lines

Rio Janeiro. In Mr. Fry's collection.

#### Group 3.

*Mas.* *Corpus gracile, longissimum. Palpi brevissimi. Antennæ subpectinatae, thorace paullo breviores. Abdomen alas posticas longissime superans. Pedes sat graciles, pilis longis vestiti; tibiæ posticæ calcaribus duobus parvis apicalibus. Alæ perangustæ.*

*Male.* Body slender, very long. Palpi very short. Antennæ slightly pectinated along the whole length, a little shorter than the thorax. Abdomen extending for three-fourths of its length beyond the hind wings. Legs rather slender; femora and tibiae clothed with long hairs; hind tibiae with two minute apical spurs. Wings very narrow.

### 4. PHRAGMATÆCIA RUBESCENS.

*Mas.* *Rufo-ferruginea*; *antennæ nigricantes*; *tarsi albidi*; *alæ anticæ apud costam ex parte testacea, margine exteriore testacea fusco notatae, vitta postica testacea*; *posticæ albæ, basi fuscescentes, strigis marginalibus fuscis*.

*Male.* Reddish ferruginous. Antennæ blackish. Tarsi almost wholly white. Fore wings partly testaceous along the costa, testaceous, with brown marks along the exterior border; a testaceous

stripe proceeding from the middle of the base, inclined at half its length towards the interior border and joining the latter near its tip. Hind wings white, brownish at the base, and with brown marks along the border. Length of the body 11 lines; of the wings 18 lines.

Rio Janeiro. In Mr. Fry's collection.

### Africa.

#### 5. PHARGMATÆCIA PALLENS.

Mas. *Pallide cervina*; *abdomen cinerascens, apice cervinum*; *alæ anticæ apices versus cinereo reticulatæ, posticæ albæ*.

*Rhizoma pallens*, Boisd. *Herr.-Schæff. Lép. Exot. Sp. Sér. 1*, f. 169.

*Male*. Pale fawn-colour. Abdomen grayish fawn-colour at the tip. Apical half of the fore wings minutely reticulated with gray. Hind wings white.

Guinea.

### Genus 9. MORPHEIS.

Corpus sat validum. Proboscis brevis, distincta. Palpi porrecti, caput non superantes; articulus 3us acuminatus. Antennæ graciles, setaceæ, thorace paullo longiores. Abdomen elongatum, caput longe superantes. Pedes validi, pilosi, longiusculi; tibiæ posticæ calcaribus duobus minutis apicalibus. Alæ longæ, angustæ; anticæ subfalcatae acuminatae apud costam subrectæ, margine exteriore perobliquo.

*Morpheis*, Hüb. Verz. Schmett. (*Phalæna Fodicantes Teredines Graciles*), 196.

*Myelois*, Boisd. ; Herr.-Schæff.

Body rather stout. Proboscis short, distinct. Palpi porrect, not extending beyond the head; third joint acuminate. Antennæ slender, setaceous, a little longer than the thorax. Abdomen extending for full one-third of its length beyond the hind wings. Legs stout, pilose, rather long; hind tibiæ with two minute apical spurs. Wings long and narrow. Fore wings falcate, nearly straight along the costa, acuminate at the tips, slightly undulating and extremely oblique along the exterior border; first and second inferior veins almost contiguous at the base; third about thrice further from the fourth than from the second.

This genus differs much from the other genera of *Cossidæ*, and has some resemblance to the *Noctuites*. The four following species may be all varieties of *M. Smerinthia*.

### 1. MORPHEIS SMERINTHA.

*Pallide fusca ; abdomen obscure fuscum, marginibus apiceque pallide fuscis ; alæ anticæ nigro subpunctatae, macula apicali fasciisque duabus interruptis nigricantibus ; posticæ albidae, antice testaceæ, basi fuscescentes.*

*Morpheis Smerintha*, *Hüb. Samml. Exot. Schmett.* ii. *Lep.* iii. *Phal.* iii. *Fodicantes*, i. *Teredines*, B. *Graciles*, i. 1, 2, 3, 4? *Myelobia pustulata*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1*, f. 152.

*Male.* Pale brown. Abdomen dark brown; borders and tip pale brown. Fore wings slightly sprinkled with black points, with a blackish apical spot, and with two oblique interrupted blackish bands, the first more oblique than the second and composed of three spots, the second interrupted in the middle and extending nearly to the apical spot. Hind wings whitish, testaceous in front, brownish at the base.

Parà.

*Var. β.* Fawn-colour. Fore wings with a very broad oblique band of various blackish marks. Hind wings white. Length of the body 16 lines; of the wings 46 lines.

a. "Found at sea (Atlantic), 500 miles from land."

### 2. MORPHEIS PALEACEA.

*Mas. Straminea ; alæ anticæ punctis obscuris subconspersæ, apicibus fasciisque duabus cinereis ; posticæ albæ.*

*Myelobia paleacea*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1*, f. 150.

*Male.* Straw-colour. Fore wings slightly sprinkled with dark points, with pale gray tips, and with two oblique gray bands; the first short, on the hind border at one-fourth of the length of the hind wing; the other joining the hind border at half the length of the wing, extending thence nearly to the tip, where it forms an acute angle. Hind wings white.

Brazil.

## 3. MORPHEIS DECOLORATA.

Fœm. *Straminea; alæ anticæ punctis obscuris subconspersæ, macula apicali fasciisque quatuor obliquis fuscescentibus; posticæ pallide stramineæ, basi fuscescentes.*

*Myelobia decolorata, Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1, f. 151.*

*Female.* Straw-colour. Fore wings slightly sprinkled with dark points, with a brownish apical spot, and with four oblique brownish bands; first band extending from the hind border to one-third of the breadth of the wing; second angular, extending from the hind border to two-thirds of the breadth; third complete, slightly undulating, extending nearly to the apical spot. Hind wings pale straw-colour, brown towards the base.

Brazil.

## 4. MORPHEIS MURINA.

Fœm. *Obscure fusca; abdomen vitta dorsali lutea; alæ anticæ maculis duabus fasciisque duabus obliquis nigricantibus; posticæ albæ, basi fuscescentes, apud costam testaceæ.*

*Myelobia murina, Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1, f. 153.*

*Female.* Dark brown. Abdomen with a luteous dorsal stripe. Fore wings with a blackish apical spot, a blackish discal spot, and two oblique blackish bands; the first extending from the hind border to half the breadth of the wing; second complete, undulating, beyond the discal spot. Hind wings white, testaceous along the costa, brownish towards the base.

Brazil.

## Fam. 12. HEPIALIDÆ.

Habitus non geometriformis. Proboscis nulla. Palpi obsoleti. Antennæ moniliformes, vix capitis latitudine longiores. Thorax non cristatus. Abdomen haud barbatum. Alæ quatuor deflexæ, longæ, angustæ, structura et magnitudine fere æquales, anticæ opacæ, posticæ semihyalinæ. *Fœmina* semper alata. Larva libera.

*Hepialidæ*, Steph. Ill. Brit. Ent. Haust. ii. 3. Newman, Ent. Mag. i. 67.

Zeuzeridi, p., Boisd.

The wing-veins of the *Hepialidæ* are very different from those of the other *Bombycites* in structure. The discal areolet is as it were doubled; the second inferior vein is about ten times further from the third than from the first; the third is joined to the discal areolet by an oblique veinlet, and to the submedian vein by two veinlets, whose junction forms an acute angle, which emits a vein to the border.

### Synopsis of Genera.

A. Alæ anticæ posticis longiores.

A. Pedes validi.

a. Abdomen non aut vix elongatum.

a. Abdominis latera non fasciculata.

i. Antennæ filiformes aut setaceæ.

\* Antennæ filiformes, breves. - 1. *HEPIALUS*, Fabr.

\*\* Antennæ setaceæ, longiores.

† Palpi obsoleti. - - - - 3. *DALACA*, Walk.

†† Palpi distincti.

‡ Antennæ *maris* serratæ, *fæminæ* simplices.

§ Alæ anticæ margine exteriore subobliquo.

4. *ELHAMMA*, Walk.

§§ Alæ anticæ margine exteriore perobliquo.

11. *PORINA*, Steph.

†† Antennæ *maris* pectinatæ, *fæminæ* serratæ.

§ Antennæ *maris* mediocriter pectinatæ, inter ramos serratæ. - 12. *OXYCANUS*, Steph.

§§ Antennæ *maris* late pectinatæ, inter ramos non serratæ. - - - 13. *PIELUS*, Steph.

ii. Antennæ subclavatæ. - - - 2. *ONCOPEA*, Steph.

b. Abdominis latera fasciculata. - - - 10. *DOLECTA*, Boisd.

b. Abdomen longum aut longissimum.

a. Alæ angustiores, non falcatae, margine exteriore recto.

7. *PHASSUS*, Steph.

b. Alæ latiores, subfalcatae, margine exteriore undulato.

8. *CHARAGIA*, Walk.

B. Pedes graciles.

a. Alæ angulatae. - - - - - 14. *DRACONIA*, Hübn.

b. Alæ non angulatae.

a. Palpi obsoleti. - - - - - 5. *FRAUS*, Steph.

b. Palpi distincti - - - - - 6. *GORGONIA*, Hübn.

B. Alæ anticæ posticis non longiores. - - - 9. *LETO*, Hübn.

## Genus 1. HEPIALUS.

*Corpus sat gracile. Caput et thorax pilosa. Palpi obsoleti. Antennæ breves, graciles, simplices, filiformes. Abdomen alas posticas paullo superans. Pedes validi, pilosi. Alæ longæ, angustæ; anticæ apud costam subrectæ, apice subrotundatæ, margine exteriore perobliquo. Mas.—Tibiæ posticæ fasciculatæ.*

*Gorgopis*, p., *Gazoryctra*, *Pharmacis* et *Triodia*, *Hübn.* *Verz.* *Schmett.* 198.

*Phalæna-Noctua*, p., *Linn.*

*Phalæna-Hepialus*, p., *Gmel.*

*Hepialus*, *Fabr.*; *Schr.*; *Latr.*; *Haw.*; *God.*; *Leach*; *Samou.*; *Curt.*; *Steph.*

*Hepiolus*, *Illig.*; *Ochs.*

*Bombyx*, p., *Hübn.*

*Noctua*, p., *Esp.*

*Cossus*, p., *God.*

Body rather slender. Head and thorax pilose. Proboscis and palpi obsolete. Antennæ slender, simple, filiform, about as long as the breadth of the head, hardly longer in the male than in the female. Abdomen extending rather beyond the hind wings. Legs stout, pilose; hind tibiæ with two very minute apical spurs. Wings long and narrow. Fore wings almost straight along the costa, somewhat rounded at the tips, extremely oblique along the exterior border; second inferior vein about ten times further from the third than from the first. *Male*.—Hind tibiæ tufted with long hairs.

## Europe.

- A. Alæ apice acutæ. - - - - - *Humuli*, *Linn.*
- B. Alæ apice rotundatæ, anticæ signaturis subargenteis et fuscis.
  - A. Vitta subargentea macularis ex apice alæ versus medium marginis interioris, deinde ad basim.
  - A. Fuscus, maculis argenteis. - - - - - *Ganna*, *Hübn.*
  - B. Subferrugineus aut cinerascens, maculis albidis. *lupulinus*, *Linn.*
- B. Lineæ duæ rectæ a margine antico versus interiore in angulum rectum convergentes. - - - - - *Sylvinus*, *Linn.*
- C. Signaturæ confusæ.
  - A. Ciliæ inter costas albidae.

- a. Alarum anticarum linea limbalis punctis inter costalibus albis. *Fœmina* alis abortivis. - Pyrenaicus, *Donzel*.
- b. Linea limbalis innotata. *Fœmina* alata. velleda, *Hüb.*
- b. Ciliæ innotatæ. carnus, *Fabr.*
- D. Vittæ duæ transversæ parallelæ. - - - Hectus, *Linn.*

### 1. HEPIALUS HUMULI.

*Alæ maris niveæ; fœminæ flavæ, anticæ fulvo striatæ.*

Hepialus Humuli, *Fabr.* *Sp. Ins.* ii. 207, 1; *Mant. Ins.* ii. 134, 1; *Ent. Syst.* iii. 2, 5, 1. *Haw. Lep. Brit.* 138. *Illig. N. Ausg. dess.* i. 131, 1. *Sulz. Gesch. Ins.* ii. 160, pl. 22, f. 1. *Borkh. Eur. Schmett.* iii. 144, 39; *Rhein. Mag.* i. 373, 235. *Lang. Verz.* ii. 115, 858, 859. *Brahm, Ins. Kal.* 59, 23, 478, 340. *Schwarz, Raup.* 26, 106, 533, 701, 761. *God. Lép. de France,* iv. 32, pl. 1, f. 1, 2. *Steph. Ill. Brit. Ent. Haust.* ii. 6, 3. *Westw. and Humph. Brit. Moths,* i. 46, pl. 8, f. 7. *Herr-Schæff. Samml. Eur. Schmett. Text,* iii. 6, 1.

Phalæna-Noctua Humuli, *Linn. Syst. Nat.* i. 2, 832, 84; *Faun. Suec.* 917, 1147.

Phalæna-Hepialus Humuli, *Gmel. ed. Syst. Nat.* i. 5, 2617, 84. *Berk. Syn.* i. 139. *Donov. Nat. Hist. Brit. Ins.* viii. 59, pl. 274, f. 1, 2. *Stew. El. Nat. Hist.* ii. 206. *Turt. Syst. Nat.* iii. 340.

— — —, *Rai, Ins.* ii. 157, 3. *Deg. Ins.* i. pl. 7, f. 5, 6. *Sulz. Hist. Ins.* pl. 22, f. 1. *Harr. Ins. Angl.* pl. 4, f. a—d. *Pap. d'Eur.* v. 74, pl. 191, f. 248, a—k.

Bombyx Humuli, *Wien. Verz.* 61, 1. *Vieweg, Tab. Verz.* ii. 3, 1. *Schr. Faun. Boic.* ii. 1, 301, 1493. *Hüb. Bomb.* 152, 1, pl. 48, f. 203, 204; *Larv. Lep.* iii. *Bomb.* iii. *Tend. C. a.* f. a—c. *God. Pap. de France,* iii. pl. 1, f. 1, 2. *Meig. Handb.* 147, 1; *Syst. Beschr. Eur. Schmett.* iii. 56, 1, pl. 89, f. 3.

Noctua Humuli, *Esp. Schmett.* iv. 20, pl. 80. *Noct.* 1, f. 1—4.

Phalæna Humuli, *Müller, Zool. Dan.* 120, 1380. *Fuessl. Schweiz. Ins.* 36, 689.

Hepialus Humulator, *Haw. Pr.* 19.

Hepiolus Humuli, *Ochs. Schmett. Eur.* iii. 104, 1; iv. 50, 1.

Gorgopis Humuli, *Hüb. Verz. Schmett.* 198, 2017.

a—k. England. From Mr. Stephens' collection.

l—o. England.

p—r. Europe. From M. Becker's collection.

## 2. HEPIALUS VELLEDA.

*Alæ fusco, livido alboque variæ, striga postica punctorum niveorum costaque fusco maculata.*

Hepialus velleda, *Haw. Lep. Brit.* 141. *Steph. Ill. Brit. Ent. Haust.* ii. 6, 4. *Herr.-Schæff. Samml. Eur. Schmett. Text,* ii. 8, 6.

Phalæna-Noctua Mappa, *Donov. Nat. Hist. Brit. Ins.* x. 95, pl. 360, f. 3.

Bombyx velleda, *Hübn. Bomb.* 153, 6, pl. 50, f. 212; pl. 54, f. 233, 234.

Noctua velleda, *Esp. Schmett.* iv. 58, pl. 195, 116, f. 1; iv. 2, 2.

Hepiolus velleda, *Ochs. Schmett. von Eur.* iii. 105, 2.

*Var.* Hepialus carnus, *Steph. Ill. Brit. Ent. Haust.* ii. 7, 5, pl. 13, f. 1. *Alæ anticæ cinerascentes aut lividae, nubeculosæ, maculis fuscis albisque seriatim sparsæ, posticæ cinereæ.*

*a—v.* England. From Mr. Stephens' collection.

*u—dd.* England.

*ee—hh.* Europe. From M. Becker's collection.

## 3. HEPIALUS CARNUS.

*Alæ anticæ nubeculosæ, maris cinerascentes, fœminæ lividae, maculis fuscis albisque seriatim sparsis.*

Hepialus carnus, *Fabr. Ent. Syst.* iii. 2, 6. *Schr. Faun. Boic.* ii. 1, 304. *Ochs. Schmett. von Eur.* iii. 107, 3. *Herr.-Schæff. Samml. Eur. Schmett. Text,* ii. 87.

Hepialus Jodutta, (fœm.) *Fabr. Ent. Syst.* iii. 2, 6, 2.

Bombyx carna, *Hübn. Bomb.* 154, 8, pl. 50, f. 214. *Wien. Verz.* 310. Fam. O, 3, 4. *Illig. N. Ausg. dess.* i. 132, 3, 4. *Borkh. Eur. Schmett.* iii. 159, 45. *Brahm, Ins. Kal.* 479, 342.

Noctua carna, *Esp. Schmett.* iv. 31, pl. 82. *Noct.* 3, f. 1.

\_\_\_\_\_, *Pap. d'Eur.* v. 81, pl. 93, f. 251.

Bombyx Jodutta, *Hübn. Bomb.* 154, 7, pl. 50, f. 213. *Wien. Verz.* 61. Fam. O, 6. *Illig. N. Ausg. dess.* i. 134, 6.

Gazoryctra Jodutta, *Hübn. Verz.* *Schmett.* 198, 2019.

Pharmacia carna, *Hübn. Verz.* *Schmett.* 199, 2025.

Phalæna-Hepialus carna, *Gmel. ed. Syst. Nat.* i. 5, 2617, 1302.

*a.* St. Martin's Falls, Albany River, Hudson's Bay. Presented by Dr. Barnston.

This specimen is referred with doubt to the above species.

## 4. HEPIALUS LUPULINUS.

*Alæ anticæ maris luteæ, fœminæ cinerascentes, lineola media fasciisque duabus albis externis punctato interruptis; posticæ cinereæ.*

Hepialus lupulina, *Fabr. Sp. Ins.* ii. 207, 2; *Mant. Ins.* ii. 134, 3; *Ent. Syst.* iii. 2, 6, 3. *Haw. Lep. Brit.* 143. *Borkh. Schmett.* iii. 151, 41. *God. Lép. de France*, iv. 38, pl. 1, f. 5, 6. *Steph. Ill. Brit. Ent. Haust.* ii. 5, 2. *Herr.-Schæff. Samml. Eur. Schmett. Text.* ii. 7, 3. *Westw. and Humph. Brit. Moths*, i. 45, pl. 8, f. 3—5.

Phalæna-Noctua lupulina, *Linn. Syst. Nat.* i. 2, 833, 86. *Faun. Suec.* 1149. *Clerck. Icon.* pl. 9, f. 4.

Phalæna-Bombyx, *Gmel. ed. Syst. Nat.* i. 5, 2617, 86.

Phalæna-Hecta, *Harr. Exp.* 74, pl. 22, f. 1.

Phalæna-Bombyx serraticornis? *Mus. Lesk.* 99, 278. *Gmel. ed. Syst. Nat.* i. 5, 2618, 1529.

Hepialus-Noctua lupulina, *Esp. Schmett.* iv. pl. 2, f. 1—4.

Bombyx lupulina, *Hüb. Bomb.* pl. 49, f. 210, 211.

Hepialus obliquis, *Fabr. Ent. Syst.* iii. 2, 6, 5.

Hepiolus lupulinus, *Ochs. Schmett.* iii. 114, 6; iv. 51, 6. *God. Pap. de France*, iii. pl. 1, f. 5, 6. *Meig. Syst. Beschr. Eur. Schmett.* iii. 57, 3, pl. 89, f. 5.

Hepialus lupalator, *Haw. Pr.* 19.

Hepialus fuscus, *Haw. Lep. Brit.* 141.

Hepialus Cora, *Schr. Faun. Boic.* ii. 1, 304.

Bombyx Flina, *Wien. Verz.* 61, 113. *Hüb. Bomb.* pl. 49, f. 210 (mas), 211 (fœm).

Hepialus angulum, *Haw. Lep. Brit.* 142.

Hepialus obliquis, *Haw. Lep. Brit.* 142.

Hepialus nebulosus, *Haw. Lep. Brit.* 143.

Triodia lupulina, *Hüb. Verz. Schmett.* 198, 2022.

Pharmacia Flina, *Hüb. Verz. Schmett.* 199, 2024.

a—ggg. England. From Mr. Stephens' collection.

hhh—nnn. England.

ooo. Europe.

## 5. HEPIALUS HECTUS.

*Alæ anticæ maris luteæ, strigis tribus obliquis punctato interruptis aureis; fœminæ saturate fuscæ fasciis duabus cinerascentibus; posticæ fuscæ.*

- Hepialus Hectus, *Fabr. Sp. Ins.* ii. 208, 3; *Mant. Ins.* ii. 134, 4; *Ent. Syst.* iii. 2, 6, 4. *Wien. Verz.* 61, O, 4. *Haw. Lep. Brit.* 144. *Leach, Edin. Encycl.* ix. 132. *Steph. Ill. Brit. Ent. Haust.* ii. 4, 1. *God. Lép. de France*, iv. 35, pl. 1, f. 3, 4. *Westw. and Humph. Brit. Moths*, i. 45, pl. 8, f. 1, 2. *Herr.-Schäff. Samml. Eur. Schmett. Text.* ii. 8, 8.
- Phalæna-Noctua Hectus, *Linn. Syst. Nat.* ii. 833. *Faun. Suec.* 1148. *Stew. El. Nat. Hist.* ii. 206. *Donov. Nat. Hist. Brit. Ins.* viii. 60, pl. 274, f. 3 (mas). *Turt. Syst. Nat.* iii. 340.
- Hepialus Jodutta, *Fabr. Mant. Ins.* ii. 134, 2. *Schr. Faun. Boic.* ii. 303. *Borkh. Schmett.* iii. 160, 46. *Haw. Lep. Brit.* (fœm).
- Bombyx Jodutta, *Wien. Verz.* 61, 6.
- Bombyx Hectus, *Hüb. Bomb.* pl. 49, f. 208 (mas), 209 (fœm).
- Bombyx lupulina, *Hüb. Bomb.* i. 27, pl. 4, f. T. S.
- Noctua Nemorosa, *Esp. Schmett.* iv. 30, pl. 81, f. 5 (mas).
- Noctua Jodutta, *Esp. Schmett.* iv. 30, pl. 81, f. 6.
- Phalæna clavipes, *Deg. Ins.* i. pl. 7, f. 11; vii. pl. 44, f. 14.
- Bombyx Hecta, *Wien. Verz.* 61, 4.
- Hepialus Hecta, *Borkh. Schmett.* iii. 148, 40.
- Hepialus nemorosa, *Borkh. Schmett.* iii. 159, 44.
- Noctua Hecta, *Esp. Schmett.* iii. pl. 80, f. 5—7.
- Hepiolus Hectus, *Ochs. Schmett. von Eur.* iii. 116, 7; iv. 51, 7. *Meig. Handb.* 147, 3. *Syst. Beschr. Eur. Schmett.* iii. 57, 4, pl. 89, f. 6, 7.
- Phalæna-Hepialus Hecta, *Gmel. ed. Syst. Nat.* i. 5, 2617, 85.
- Phalæna-Hepialus Jodutta, *Gmel. ed. Syst. Nat.* i. 5, 2617, 1301.
- Hepiolus Hectus, *Ochs. Schmett. von Eur.* iii. 116, 7; iv. 51, 7.
- Gazoryctra Hecta, *Hüb. Verz. Schmett.* 198, 2020.
- a—w.* England. From Mr. Stephens' collection.
- x—dd.* England.
- ee, ff.* Europe. From M. Becker's collection.

## 6. HEPIALUS SYLVINUS.

*Alæ anticæ maris rufo lutescentes, fœminæ cinnamoneæ, lineis duabus obliquis albis; posticæ cinereæ.*

- Hepialus Sylvinus, *Curt. Brit. Ent.* iv. pl. 185. *Steph. Ill. Brit. Ent. Haust.* ii. 7. *Herr.-Schäff. Samml. Eur. Schmett. Text.* ii. 7, 4.
- Phalæna-Noctua Sylvina, *Linn. Syst. Nat.* ii. 834. *Faun. Suec.* ii. 1151.
- Phalæna-Hepialus Crux, *Gmel. ed. Syst. Nat.* i. 5, 2618, 1303.

- Hepialus angulatus*, *Fabr. Sp. Ins.* ii. 506.  
*Hepialus Crux*, *Fabr. Mant. Ins.* ii. 135, 6; *Ent. Syst.* iii. 2, 7, 7.  
*Rossi*,  
*Bombyx Sylvinus*, *Wien. Verz.* 61, O, 2.  
*Bombyx Hamma*, *Wien. Verz.* 61, O, 5. *Borkh. Schmett.* iii. 153,  
42.  
*Noctua Sylvina*, *Esp. Schmett.* iv. pl. 82, f. 2—4.  
*Noctua Flina*, *Esp. Schmett.* iv. pl. 82, f. 5—7.  
*Hepialus Fauna*, *Schr. Faun. Boic.* ii. 1, 305.  
*Hepialus Hamma*, *Schr. Faun. Boic.* ii. 1, 302.  
*Bombyx Hamma*, *Hübn. Bomb.* 152, 2, pl. 49, f. 207; pl. 59, f. 2,  
52.  
*Bombyx lupulinus*, *Hübn. Bomb.* pl. 48, f. 205 (mas), f. 206 (fœm).  
*Hepialus lupulinus*, *Haw. Lep. Brit.* 140.  
*Noctua Flina*, *Esp. Schmett.* iv. pl. 82, f. 5—7.  
*Hepiolus Sylvinus*, *Ochs. Schmett. von Eur.* iii. 109, 4; iv. 50, 4.  
*Meig. Handb.* 147, 2, pl. 11, f. 6; *Syst. Beschr. Eur. Schmett.*  
iii. 56, 2, pl. 89, f. 4.  
*Triodia Sylvina*, *Hübn. Verz. Schmett.* 198, 2021.  
*Cossus Sylvinus*, *God. Lép. de France*, iv. 43, pl. 2, f. 1—5.  
*a—r.* England. From Mr. Stephens' collection.  
*s—aa.* England.  
*bb, cc.* Europe. From M. Becker's collection.  
*dd, ee.* Europe. From Mr. Milne's collection.  
*ff—hh.* France.

#### 7. HEPIALUS GANNA.

*Alæ anticæ fuscæ, fascia ramosa punctisque argenteis; posticæ cinereæ.*

- Bombyx Ganna*, *Hübn. Bomb.* 154, 9, pl. 50, f. 215.  
*Gazoryctra Ganna*, *Hübn. Verz. Schmett.* 198, 2018.  
*Hepiolus Ganna*, *Ochs. Schmett. von Eur.* iii. 113, 5.  
*Hepialus Ganna*, *Herr.-Schäff. Samml. Eur. Schmett. Text,* ii.  
6, 2.

Swiss Alps.

#### 8. HEPIALUS PYRENAICUS.

*Alæ anticæ fuscæ maculis plurimis inæqualibus albidis; posticæ fuscæ. Fœm.—Subaptera.*

*Hepialus Pyrenaicus*, *Donzel, Ann. Soc. Ent. Fr.* vii. 429, pl. 12, f. 1, 2. *Duponch. Suppl. Lép. France*, 214, pl. 68, f. 3. *Herr.-Schäff. Samml. Eur. Schmett. Text*, ii. 7, 5.

Mont-Louis, Eastern Pyrenees.

### North America.

#### 9. HEPIALUS ARGENTEO-MACULATUS.

*Fusco-ochraceus, vel cinereo-fuscus; alæ anticæ pallidæ, ochraceo vel fusco fasciatæ, guttisque duabus prope basim argenteis; posticæ rubro vel cinereo-ochraceæ, immaculatae.*

*Hepiolus argenteo-maculatus*, *Harris, Cat. Hitchcock's Report ed. i. 591; ed. 2, 592; Report on Ins. injur. to Vegetat.* 295. *Agassiz, on Lake Superior*, 389, pl. 7, f. 6. *Gosse, Canadian Naturalist*, 248.

Massachusetts. Lake Superior.

Var. *Cervinus*; *antennæ capitis latitudine vix longiores. Alæ testaceæ aut albidae; anticæ fasciis tribus maculaque cervinis maculisque basim versus duabus argenteis nigro marginatis.*

Var. Fawn-colour. Antennæ hardly longer than the breadth of the head. Wings testaceous or whitish. Fore wings almost angular at the tips, with three irregular and incomplete fawn-coloured bands, and with two silvery black-bordered spots near the base; first and second bands united in the disk, and having a fawn-coloured spot between them on the costa. Length of the body 9—14 lines; of the wings 24—40 lines.

a—e. St. Martin's Falls, Albany River, Hudson's Bay. Presented by Dr. Barnston.

f. West Canada. From Mr. Stevens' collection.

### South America.

#### 10. HEPIALUS PALLENS.

*Totus pallide flavo-cinereus; alæ anticæ cinereæ, punctis minutis obscurioribus adspersæ; posticæ pallidiores.*

*Hepialus pallens*, *Blanch. Gay, Hist. Chile*, vii. 69, 1. *Atlas, Zool. Ent. Lép.* pl. 4, f. 5.

Coquimbo.

## 11. HEPIALUS VENOSUS.

*Cinereo-pilosus ; antennæ flavescentes ; alæ anticæ cinereæ, lineis transversis sinuosis pallidis, fusco marginatis ; posticæ fusco-cinereæ, punctis nonnullis pallidioribus.*

Hepialus venosus, *Blanch. Gay, Hist. Chile*, vii. 70, 2. *Atlas, Zool. Ent. Lép. pl. 4, f. 6.*

Coquimbo.

## Africa.

12. HEPIALUS CRASSUS. *p. 1520.*

*Alæ anticæ albæ, fusco cinereo badioque varia, apice irregulariter albo, lunula magna fusca ; posticæ subcinereo-fuscescentes.*

Phalæna (Noctua) crassa, *Drury, Ill. Nat. Hist. Exot. Ins.* iii. 2, pl. 2, f. 1. *App. iii.*

Hepialus crassus, *Westw. ed. Drury*, iii. 2, pl. 2, f. 1.

Sierra Leone.

## Asia.

## 13. HEPIALUS MACILENTUS.

Mas. *Alæ anticæ rubræ, fasciis duabus obliquis postice convenientibus maculisque costalibus argenteis ; alæ posticæ nigricantes, ad margines rubræ.*

Hepialus macilentus, *Eversmann, Bull. Soc. Imp. Nat. Mosc.* 1851, No. 2, 626, 14.

Allied to *H. Ganna*.

Tckoutzk.

## 14. HEPIALUS NEPALENSIS.

*Testaceus ; antennæ fulvæ ; alæ anticæ fasciis tribus perobliquis subobsoletis guttularibus fuscis.*

Hepialus nepalensis, *Stephens, MSS.*

Testaceous. Antennæ tawny, hardly longer than the breadth of the head. Fore wings with three very oblique bands of indistinct brown dots. Length of the body 8? lines ; of the wings 20 lines.

a. Nepaul. Presented by Major-Gen. Hardwicke.

## 15. HEPIALUS INDICUS.

Mas. *Pallide fuscus; alæ anticæ totæ, posticæ apud costæ apicem albido variæ, illæ vitta interrupta arcuata discali nigricante.*

*Hepialus Indicus, Stephens, MSS.*

*Male.* Pale brown. Fore wings varied with whitish marks, and with a curved interrupted discal blackish stripe. Hind wings with whitish marks about the tip of the costa. Length of the body 9 lines ; of the wings 24 lines.

Hindostan. In Mr. Stephens' collection.

## 16. HEPIALUS AUSTRALASIÆ.

Fœm. *Cervinus; abdomen albido-testaceum; alæ longæ, posticæ albido-testacea.*

*Hepialus Australasiæ, Stephens, MSS.*

*Female.* Fawn-colour. Antennæ about half the length of the thorax. Abdomen and hind wings whitish testaceous. Wings long. Fore wings extremely oblique along the exterior border. Length of the body 8—10 lines ; of the wings 22—28 lines.

*a—c.* Sydney. Presented by E. Doubleday, Esq.

*d, e.* Sydney. Presented by Dr. Sinclair.

*f—j.* Australia. From Mr. Milne's collection.

*k, l.* Australia.

*m, n.* New South Wales. From Mr. Wood's collection.

## Genus 2. ONCOPERA.

*Mas et fœm.* Corpus sat validum. Caput, thorax, femora et tibiæ pilosissima. Palpi obsoleti. Antennæ simplices, subclavatae, capitis latitudine non longiores. Abdomen alas posticas paullo superans. Pedes validi; tibiæ posticæ calcaribus duobus posticis minimis. Alæ sat angustæ; anticæ apud costam rectæ, apice rotundatae, margine exteriore perobliquo. *Mas.*—Tibiæ posticæ pilis longissimis fasciculatæ.

*Oncopera, Stephens, MSS.*

*Male and female.* Body moderately stout. Head, thorax, femora and tibiæ very pilose. Proboscis and palpi obsolete. Antennæ simple, subclavate, as long as the breadth of the head, alike

in both sexes. Abdomen extending a little beyond the hind wings. Legs stout; hind tibiæ with two very minute apical spurs. Wings rather narrow. Fore wings straight along the costa, rounded at the tips, very oblique along the exterior border; veins much like those of *Hepialus*. *Male*.—Hind tibiæ tufted with very long hairs.

### 1. ONCOPERA INTRICATA.

*Mas et fœm.* *Fusca*; *antennæ fulvæ*; *abdomen et pedes testacea*; *alæ anticæ fasciis tribus costalibus cinereis fusco strigatis apud discum connexis*; *posticæ cinereo-fuscæ, pallidiores, basi subhyalinæ*.

*Oncopera intricata*, *Stephens*, *MSS.*

*Male and female.* Antennæ tawny. Abdomen and legs testaceous. Fore wings with an irregular cinereous brown-striped figure, which extends along the whole length, and is thrice joined to the costa. Hind wings paler, cinereous-brown, almost hyaline towards the base. Length of the body 7—9 lines; of the wings 14—18 lines.

*a—c.* Van Dieman's Land. Presented by R. Butler, Esq.

*d—f.* Van Dieman's Land. From Mr. A. J. Smith's collection.

*g, h.* Van Dieman's Land. Presented by E. Doubleday, Esq.

*i, j.* Van Dieman's Land. Presented by Morton Allport, Esq.

*k—p.* Van Dieman's Land. Presented by Major-Gen. Hardwicke.

### Genus 3. DALACA.

*Mas et fœm.* Corpus sat gracile, subpilosum. Palpi obsoleti. Antennæ validæ, setaceæ, subcompressæ. Abdomen alas posticas superans. Pedes sat graciles, subpilosæ. Alæ sat angustæ; anticæ apud costam rectæ, apice subrotundatæ, margine exteriore sat obliquo vix convexo. *Mas*.—Antennæ subserratae, thorace non longiores. Tibiæ posticæ pilis longis fasciculatae. *Fœm*.—Antennæ simplices, thorace vix breviiores.

*Male and female.* Body rather slender, slightly hairy. Proboscis and palpi obsolete. Antennæ stout, setaceous, somewhat thickened and flattened. Abdomen extending somewhat beyond the hind wings. Legs rather slender, slightly pilose. Wings rather narrow. Fore wings straight along the costa, somewhat rounded at the tips, rather oblique, and very slightly convex along

the exterior border; veins much like those of *Hepialus* in structure. *Male*.—Antennæ minutely serrated, as long as the thorax. Hind tibiæ tufted with long hairs. *Female*.—Antennæ nearly as long as the thorax.

### 1. DALACA NIGRICORNIS.

Mas. *Testacea; antennæ nigræ; alæ anticæ fuscae, strigis variis ex parte confluentibus albidis; posticæ subobscurores, basi pallidiores, fimbria alba.*

*Male*. Testaceous. Antennæ black. Fore wings brown, with irregular partly confluent whitish marks, which extend along the costa and along the interior border, and form an oblique exterior band. Hind wings rather darker than the fore wings, paler towards the base; fringe white. Length of the body 4 lines; of the wings 11 lines.

a. Chili. From Mr. Cuming's collection.

### 2. DALACA EXUL.

*Fusca; abdomen thorace obscurius, apice pallidum; alæ anticæ nigro-fuscæ macula basali nigra, vitta postica maculisque marginalibus albis.*

*Epiolus exul*, Herr.-Schäff. Lép. Exot. Sp. Sér. 1, pl. 40, f. 43.

Brown. Abdomen mostly darker than the thorax, pale towards its tip. Fore wings blackish brown, with a black spot at the posterior base, with a white stripe extending along half the length near the interior border, narrower towards its tip, which is angular; a row of white dots along the exterior border, near which in front there is a short band of three white spots. Hind wings pale ferruginous-brown.

Africa.

### 3. DALACA NOMAQUA.

*Fusca; antennæ fulvæ; pectus, abdomen, pedes et alæ posticæ testacea; alæ anticæ fascia irregulari subobliqua albida.*

*Hepialus Nomaqua*, MSS.

Brown. Antennæ tawny. Pectus, abdomen, legs and hind wings testaceous. Fore wings with an irregular slightly oblique

whitish stripe, which varies in breadth and shape, and is more or less notched in front. Length of the body 6—7 lines; of the wings 14—16 lines.

*a—f.* South Africa. Presented by Dr. A. Smith.

*g.* South Africa. From M. Becker's collection.

#### 4. DALACA? EXCLAMANS.

*Mas.* *Cervina*; *alæ anticæ guttis strigisque abbreviatis obscurioribus confertim conspersæ, lituraque! alba discali ornatæ; posticæ pallide rufæ.*

*Epialus exclamans*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1, f. 145.*

*Male.* Fawn-colour. Fore wings thickly sprinkled with darker dots and short streaks, and adorned with a discal white! mark. Hind wings pale red.

Brazil.

#### 5. DALACA? EPIGRAMMA.

*Fœm* *Cervina*; *abdomen fuscescens; alæ anticæ basi obscuriores, apud marginem interiore pallidiores, nigro sparse guttatæ, fasciis duabus angustis obliquis albis vitta subarcuata testacea ornatæ; posticæ pallide rufæ.*

*Epialus epigramma*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1, f. 146.*

*Female.* Fawn-colour. Abdomen brownish. Fore wings darker towards the base, paler towards the tip of the interior border, thinly sprinkled with black dots, adorned beyond the middle with two white slender oblique bands, the inner one connected with a testaceous slightly curved stripe, which proceeds from the base of the wing to the hind border. Hind wings pale red.

Brazil.

#### Genus 4. ELHAMMA.

*Mas.* *Corpus robustum. Palpi porrecti, caput non superantes; articulus 3us minutus, brevi-conicus. Antennæ setaceæ, validæ, subcompressæ, subserratæ, thorace breviores. Abdomen alas posticas triente superans. Pedes validi, pilosi; tibiæ posticæ calcaribus*

duobus minutis apicalibus. Alæ sat angustæ, non longæ; anticæ apud costam rectæ, apice subrotundatæ, margine exteriore subobliquo.

*Male.* Body robust. Palpi porrect, extending as far as the head; third joint minute, short, conical. Antennæ setaceous, stout, somewhat compressed, very minutely serrated, much shorter than the thorax. Abdomen extending for full one-third of its length beyond the hind wings. Legs stout, pilose; hind tibiæ with two minute apical spurs. Wings rather narrow, not long. Fore wings straight along the costa, slightly rounded at the tips, slightly oblique along the exterior border; structure of the veins much like that of *Hepialus*.

### 1. ELHAMMA SUBVARIA.

Mas. *Cervina*; *caput et thorax obscure fusca*; *antennæ testaceæ*; *pedes supra obscure fusi*; *alæ ex parte cinereæ annulisque cinereis quadrifasciatæ, posticæ vix fasciatæ*.

*Male.* Fawn-colour. Head and thorax dark brown. Antennæ testaceous. Legs partly dark brown above. Wings partly gray and with four oblique bands of small gray ringlets; these bands are very indistinct on the hind wings, which are occasionally wholly gray. Length of the body 8—10 lines; of the wings 18—24 lines.  
*a—c.* Van Dieman's Land. Presented by — Walcott, Esq.

### 2. ELHAMMA INCONCLUSO.

Mas. *Fusca*; *antennæ fulvæ, subserratae, thorace breviores*; *abdomen cervinum, apice fuscum*; *alæ non longæ, anticæ guttis nigricantibus striga fasciaque albis fasciaque cervina, posticæ cervinæ*.

Var.  $\beta$ . *Alæ anticæ cervinæ guttis fasciaque nigricantibus*.

*Male.* Brown. Antennæ tawny, very minutely serrated, much shorter than the thorax. Abdomen and hind wings fawn-colour, the former brown towards the tip. Wings not long. Fore wings with blackish dots, with a white streak, extending from the base to the tip, and with two exterior indistinct oblique bands, the one fawn-colour, the other whitish.

Var.  $\beta$ . Fore wings fawn-colour, with blackish dots; exterior bands obsolete; a more oblique imperfect blackish band extending from the tip of the wing to the disk. Length of the body 8 lines; of the wings 18 lines.

*a, b.* Sydney. Presented by E. Doubleday, Esq.

*c.* Sydney. Presented by Dr. Sinclair.

*d—f.* Australia. From Mr. Milne's collection.

*g, h.* Australia.

### 3. ELHAMMA SIGNATA.

Mas. *Fusca; antennæ testaceæ aut fulvæ, thorace vix breviores; pectus, abdomen, pedes et alæ posticæ testacea; alæ anticæ strigis variis discalibus nonnunquam ex parte confluentibus argenteis.*

*Male.* Brown. Antennæ testaceous or tawny, distinctly serrated, nearly as long as the thorax. Pectus, abdomen, legs and hind wings testaceous. Fore wings with irregular silvery discal marks of various and varying form, and occasionally partly confluent. Length of the body 8—10 lines ; of the wings 20—24 lines.

*a, b.* New Zealand. Presented by the Rev. W. Colenso.

*c, d.* New Zealand. Presented by Colonel Bolton.

### 4. ELHAMMA DETERMINATA.

Mas. *Fusca; palpi caput superantes, articulo 3o elongato; antennæ albido-testacea, thorace non breviores; abdomen testaceum; alæ fulvæ, anticæ maculis plurimis plaque subcostali fuscis striaque nonnunquam obsoleta argentea; posticæ vix maculatae.*

This species exceeds *E. signata* in the development of the peculiar characters of the genus. *Male.*—Brown. Palpi extending some distance beyond the head ; third joint elongate. Antennæ whitish testaceous, full as long as the thorax. Abdomen stout, testaceous, obovate. Wings tawny. Fore wings with numerous brown spots and with a brown subcostal patch which is adorned with an oblique silvery streak. Hind wings with very indistinct brownish spots, paler at the base. Length of the body 12 lines ; of the wings 28 lines.

*a.* Swan River. Presented by Sir J. Richardson.

### 5. ELHAMMA ANTIPODA.

*Pallide fuscus; alæ anticæ basi obscuriores, fasciis quinque incompletis obliquis e guttis nigris albo ex parte marginatis; posticæ paullo obscuriores, fasciis duabus aut tribus angustis incompletis obliquis subundulosis nigricantibus.*

*Epiolus antipoda*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1*, pl. 40, f. 44.

Pale brown. Fore wings rather darker near the base, with five irregular incomplete oblique bands composed of black partly white-bordered dots. Hind wings a little darker than the fore wings, with two or three slender incomplete oblique slightly undulating blackish bands.

New Zealand.

### Genus 5. FRAÜS.

*Mas.* Corpus sat gracile. Caput et thorax pilosissima. Palpi obsoleti. Antennæ mediocriter pectinatæ, thorace non breviores. Abdomen alas posticas paullo superans. Pedes graciles, pilosi; tibiæ posticæ pilis longis fasciculatæ. Alæ angustæ, non longæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore mediocriter obliquo.

*Fraüs, Stephens, MSS.*

*Male.* Body moderately slender. Head and thorax very pilose. Palpi obsolete. Antennæ moderately pectinated, full as long as the thorax. Abdomen extending a little beyond the hind wings. Legs slender, pilose; hind tibiæ tufted with long hairs. Wings narrow, not long. Fore wings straight in front, rounded at the tips, moderately oblique along the exterior border; structure of the veins much like that of *Hepialus*.

#### 1. FRAÜS SIMULANS.

*Mas.* *Cervina*; *caput et thorax ferruginea*; *antennæ albidae ramis fuscis*; *alæ anticæ vitta strigisque posticis diffusis argenteis*.

*Fraüs simulans, Stephens, MSS.*

*Male.* Fawn-colour. Head and thorax ferruginous. Antennæ whitish, with brown branches. Fore wings with an irregular silvery stripe near the costa, and with some slight diffused silvery marks hindward. Length of the body 4 lines; of the wings 10 lines.

- a.* Van Dieman's Land. Presented by E. Doubleday, Esq.
- b.* Van Dieman's Land. From Mr. A. J. Smith's collection.

## 2. FRAÜS? NANUS.

*Parvus, totus testaceus.*

Epiolus nanus, *Herr.-Schäff. Lép. Exot. Sp. Sér. 1*, pl. 40, f. 46, (1853).

Small. Body and wings wholly testaceous.

Country unknown.

## Genus 6. GORGOPIS.

*Mas.* Corpus sat gracile. Palpi longiusculi, sat graciles, caput superantes; articulus 3us elongatus. Antennæ sat late pectinatæ, thorace paullo longiores. Abdomen alas posticas paullo superans. Pedes gracillimi, subpilosí. Alæ angustæ, non longæ; anticæ apud costam rectæ, apice subrotundatae, margine exteriore vix obliquo.

*Gorgopis, Stephens, MSS.*

*Gorgopis, p., Hübn. Verz. Schmett.*

*Male.* Body rather slender. Palpi rather long and slender, extending beyond the head; third joint elongated. Antennæ rather deeply pectinated, a little longer than the thorax. Abdomen extending a little beyond the hind wings. Legs very slender, slightly pilose. Wings narrow, not long. Fore wings straight in front, slightly rounded at the tips, very slightly oblique along the exterior border.

## 1. GORGOPIS LIBANIA.

*Fusco-cervina; antennæ, abdomen et alæ posticæ testacea; alæ anticæ vitta lata brevi discali testacea.*

*Phalæna-Bombyx Libania, Cram. Pap. Exot. iv. 128, pl. 356, f. F.*  
*Gorgopis Libania, Hübn. Verz. Schmett. 198, 2016.*

Cape.

a. Port Natal. From M. Gueinzius' collection.

## 2. GORGOPIS CAFFRA.

*Mas. Cervina; caput et thorax fuscescentia. Fœm.—Alæ sub-cinereæ.*

*Gorgopis Caffra, Stephens, MSS.*

**Male.** Dull fawn-colour, smaller than *G. Libania*. Head and thorax brownish. Abdomen and hind wings rather paler than the fore wings. **Female.**—Wings almost cinereous. Length of the body 6 lines; of the wings 14 lines.

a. South Africa. Presented by Dr. A. Smith.

b. Caffraria. From M. Becker's collection.

c. Cape. From Mr. Dregé's collection.

### Genus 7. PHASSUS.

Corpus sat gracile. Palpi obsoleti. Antennæ graciles, filiformes, simplices, capitis latitudine duplo longiores. Abdomen longissimum, subcylindricum, alas posticas longe superans. Pedes validi, pilosi. Alæ longæ, angustæ; anticæ apud costam rectæ, apice vix acuminatæ, margine exteriore perobliquo.

*Epiolus*, p., *Boisd.*; *Herr.-Schæff.*

*Phassus*, *Stephens*, *MSS.*

Body rather slender. Proboscis and palpi obsolete. Antennæ slender, filiform, about twice longer than the breadth of the head. Abdomen very long, almost cylindrical, extending from more than one-third to three-fourths of its length beyond the hind wings. Legs rather stout; femora and tibiæ pilose. Wings long and narrow. Fore wings straight along the costa, hardly acuminate at the tips, extremely oblique along the exterior border; veinlet between the third inferior vein and the discal areolet upright; fore veinlet of the two behind the third inferior vein slightly curved.

### Mexico.

#### 1. PHASSUS ARGENTIFERUS.

**Mas.** *Fuscus*; *abdomen alas posticas dimidio superans*; *alæ longæ, mediocriter lutæ, anticæ albido suffusæ, vitta angulata maculisque costalibus obscure fuscis, liturisque quinque argenteis.*

*Phassus argentiferus*, *Stephens*, *MSS.*

Brown. Abdomen extending for half its length beyond the hind wings. Wings long, moderately broad. Fore wings with a whitish tinge, with a dark brown deeply angular stripe, and with some dark brown costal spots; two silvery marks by the costa, and three of various size and shape in the disk. Length of the body 24 lines; of the wings 56 lines.

a. Mexico. From Mr. Hartweg's collection.

## South America.

A. Alæ fuscæ.

- |                       |           |                    |
|-----------------------|-----------|--------------------|
| A. Statura maxima.    | - - - - - | giganteus, Boisd.  |
| B. Statura mediocris. | - - - - - | agrionides, Walk.  |
| B. Alæ cervinæ.       | - - - - - | transversus, Walk. |

## 2. PHASSUS GIGANTEUS.

*Pallide ferrugineo-fuscus ; alæ basi obscuriores, anticæ guttis tribus costalibus nigris testaceo marginatis, necnon strigis maculisque nonnullis transversis subobliquis fuscis.*

Epiolus giganteus, Boisd.; Herr.-Schäff. Lép. Exot. Sp. Sér. 1, pl. 40, f. 45.

Pale ferruginous-brown. Wings darker at the base. Fore wings with three costal black testaceous-bordered dots, and with several transverse slightly oblique brown streaks and spots, which are most numerous towards the tips.

Equinoctial America.

## 3. PHASSUS AGRIONIDES.

Mas. *Fuscus ; antennæ testaceæ ; abdomen alas posticas longissime superans ; alæ pallide fuscæ, apice obscuriores, anticæ subreticulatæ.*

*Male.* Brown. Antennæ testaceous. Abdomen rather paler than the thorax, almost bare, extending for three-fourths of its length beyond the hind wings. Wings pale brown, with dark brown tips. Fore wings slightly reticulated, with numerous transverse more or less curved streaks between the veins; these streaks are paler on the inside and darker on the outside. Length of the body 12 lines; of the wings 24 lines.

a. Brazil. From M. Becker's collection.

## 4. PHASSUS TRANSVERSUS.

Mas. *Cervinus, gracilis ; antennæ subpectinatae, thorace multo breviores ; abdomen longissimum, alas posticas dimidio superans ; pedes pilosi ; alæ anticæ maculis nonnullis parvis transversis oblongis nigricantibus albido notatis.*

**Male.** Fawn-colour, slender. Antennæ minutely pectinated, much shorter than the thorax. Abdomen very long, extending for half its length beyond the hind wings. Legs pilose. Fore wings with several small transverse oblong blackish spots, whose disks are whitish. Length of the body 10 lines; of the wings 21 lines.

Rio Janeiro. In Mr. Fry's collection.

### Africa.

#### 5. PHASSUS TESSELLATUS.

**Fœm.** *Cervinus aut ferrugineus; abdomen alas posticas longe superans; alæ anticæ fasciis nonnullis testaceis strigisque plurimis transversis albido-testaceis extus fulvo marginatis.*

Epialus tessellatus, Boisd. Herr.-Schaff. Lép. Exot. Sp. Sér. 1, f. 147.

**Female.** Fawn-colour or ferruginous. Fore wings with several testaceous bands, and with numerous whitish testaceous transverse streaks, which are bordered with tawny along the outer side. Abdomen extending for two-thirds of its length beyond the hind wings.

a, b. Port Natal. From Mr. Tucker's collection.

### Asia.

#### 6. PHASSUS SIGNIFER.

*Fuscus; pedes pilosissimi; alæ anticæ vitta discalî lata angulata interrupta fasciaque obliqua exteriore obscure fuscis liturisque duabus argenteis.*

Brown. Legs, including the tarsi, very pilose. Fore wings with a dark brown broad angular irregular and interrupted discal stripe, and with an oblique exterior dark brown band; also, with two silvery marks, one near the base, smaller than the other, and occasionally gilded. Length of the body 22—28 lines; of the wings 42—60 lines.

a. Silhet. From Mr. Argent's collection.

b, c. Ceylon. Presented by R. Templeton, Esq.

d. Sarawak, Borneo. From Mr. Horsburgh's collection.

## Genus 8. CHARAGIA.

Corpus vix robustum. Palpi breves, tenues, caput non superantes. Antennæ simplices, setaceæ, capitis latitudine vix longiores. Abdomen alas posticas mediocriter aut longissime superans. Pedes graciles, late ciliati; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ sat latæ; anticæ apud costam rectæ, apice acuminatæ, margine exteriore subundulato mediocriter obliquo.

*Hepialus*, p., *Lewin*; *Doubleday*; *Boisduval*.

Body hardly robust. Palpi short, slender, not extending beyond the head. Antennæ simple, setaceous, hardly longer than the breadth of the head. Abdomen extending more or less beyond the hind wings. Legs slender, deeply ciliated; hind tibiæ with two very minute apical spurs. Wings moderately broad. Fore wings straight in front, acuminate at the tips, slightly undulating and more or less oblique along the exterior border; veins like those of *Hepialus* in structure.

## A. Alæ anticæ virides.

A. Alæ anticæ argenteo non fasciatæ.

A. Alæ anticæ ferrugineo non fasciatæ. virescens, *Doubleday*.

B. Alæ anticæ ferrugineo fasciatæ. - rubroviridans, *Steph.*

B. Alæ anticæ argenteo fasciatæ. - Lamberti, *Steph.*

## B. Alæ anticæ rufæ, viridi variæ.

A. Alæ anticæ plaga excisa. - - - Lewini, *Steph.*

B. Alæ anticæ plaga non excisa. - - lignivorus, *Lewin*.

## 1. CHARAGIA VIRESSENS.

*Pallide virescens*; antennæ fulvæ; abdomen albidum, alas posticas perpaullo superans; alæ latæ, longiusculæ; anticæ subfalcatae, apud costam rectæ, margine exteriore subundulato mediocriter obliquo.

*Hepialus virescens*, *Doubleday*, *Duffenbach's New Zealand*, i. 284, 114.

Pale dull green. Antennæ tawny. Abdomen and hind wings whitish. Abdomen extending very little beyond the hind wings. Wings broad, rather long. Fore wings hardly falcate, straight in front, moderately oblique and very slightly undulating along the exterior border. Length of the body 20—22 lines; of the wings 42—48 lines.

- a. New Zealand. Presented by J. G. Children, Esq.  
 b. New Zealand. From Mr. Earl's collection.

## 2. CHARAGIA RUBROVIRIDANS.

*Testacea; antennæ fulvæ, capit is latitudine paullo longiores; abdomen alas posticas dimidio superans; alæ longæ, latiusculæ, anticæ pallide viridescentes, fascia maculari pero obliqua subobsolete fusca, posticæ pallide rufescentes.*

*Hepialus rubroviridans, Stephens, MSS.*

Testaceous. Antennæ tawny, a little longer than the breadth of the head. Abdomen extending for half its length beyond the hind wings. Wings long, rather broad. Fore wings dull pale green, with an indistinct macular very oblique brown band. Hind wings pale reddish. Length of the body 29 lines ; of the wings 58 lines.

- a. New Zealand. Presented by Dr. Sinclair.

## 3. CHARAGIA LIGNIVORA.

*Fusca; abdomen testaceum, apice fuscum; alæ anticæ ferrugineo-fuscae, plaga magna trigona discali fascia que lata marginali viridibus.*

*Hepialus lignivorus, Lewin, Prodr. Ent. 17, pl. 16. Boisd. Voy. de l'Astrolabe, Pt. 1. Lep. 234.*

Brown. Structure of *C. Lewinii*. Abdomen testaceous, brown towards the tip. Fore wings ferruginous-brown, with a large triangular green patch, which occupies the disk for more than half the length from the base, and with a broad marginal green band, which is shortened hindward. Length of the body 9 lines ; of the wings 20 lines.

- a. Australia. From Mr. Stevens' collection.

## 4. CHARAGIA LEWINII.

*Ferruginea; abdomen pallide rufescens, alas posticas dimidio superans; alæ mediocriter latæ; anticæ vitta viridi antice excisa postice dilatata apicem versus angustata et nonnunquam interrupta; posticæ pallide rufæ.*

*Hepialus Lewinii, Stephens, MSS.*

Ferruginous. Abdomen pale reddish, extending for half its length beyond the hind wings. Wings moderately broad. Fore

wings with a green stripe, which is deeply notched in front, dilated and angular behind, straitened and sometimes interrupted exteriorly. Hind wings pale red. Length of the body 14—15 lines; of the wings 24—26 lines.

a. Sydney. From Mr. Lambert's collection.

b, c. Sydney. Presented by E. Doubleday, Esq.

### 5. CHARAGIA LAMBERTI.

Mas. *Læte viridis*; *abdomen album*; *alæ anticæ argenteo quinque notatae*, *posticæ albæ*.

*Hepialus Lamberti*, *Stephens*, *MSS.*

*Male*. Structure of *Lewinii*. Bright green. Abdomen and hind wings white. Fore wings adorned with various silvery marks, which consist of a line along the costa, a slender straight oblique band beyond the middle, an exterior dot, and two streaks on the interior border, of which the outer one is angular.

a. New Holland. From Mr. Lambert's collection.

### Genus 9. LETO.

Corpus sat gracile. Palpi brevissimi. Abdomen longum, subcylindricum, alas posticas superans. Pedes validi, toti pilosi. Alæ longæ, angustæ; anticæ posticis non longiores, apud costam subrectæ, apice acuminatæ, margine exteriore perobliquo, venis subtus fasciculatis; posticæ margine interiore latissime fimbriato.

*Leto*, *Hübn. Verz. Schmett.* (*Phalæna Fodicantes Hepioli Caducæ*), 197.

Body rather slender. Palpi very short. Abdomen long, nearly cylindrical, extending rather beyond the hind wings. Legs stout, pilose to the tips of the tarsi. Wings long, narrow. Fore wings nearly straight in front, acuminate at the tips, extremely oblique along the exterior border, with tufts of long hairs on the veins beneath; veins much like those of *Hepialus* in structure. Hind wings as long as the fore wings, with long hairs on the veins; interior border fringed with very long hairs.

## 1. LETO VENUS.

*Cervina*; *abdomen læte rufum*; *alæ anticæ fusco variæ, argenteo confertim maculatæ*; *posticæ testaceæ, apices versus rufescentes*; *pedes rufi, albo vittati*.

Phalæna Venus, *Cram. Pap. Exot.* iii. 167, pl. 286, f. C, D.  
Leto Venus, *Hübn. Verz. Schmett.* 198, 2014.

a. South Africa. Presented by Dr. A. Smith.

## Genus 10. DOLECTA.

*Mas.* Corpus vix robustum. Antennæ basim versus sat late pectinatæ, thorace vix breviores. Abdomen alas posticas dimidio superans, lateribus fasciculatis. Alæ angustæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore perobliquo.

Dolecta, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1.*

*Male.* Body hardly stout. Antennæ almost as long as the thorax, rather deeply pectinated towards the base. Abdomen tufted along each side, extending for half its length beyond the hind wings. Wings narrow. Fore wings straight in front, rounded at the tips, very oblique along the hind border.

## 1. DOLECTA SCARIOSA.

*Mas.* *Fusca*; *alæ anticæ pallide fuscæ, albo reticulatæ, nigro quadrifasciatæ*; *posticæ nigro bifasciatæ*.

Dolecta scariosa, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1*, f. 148.

*Male.* Brown. Fore wings pale brown, reticulated with white, and having four black bands, the second entire, the rest interrupted or abbreviated. Hind wings with two irregular and incomplete black bands. Cilia alternately brown and white.

Rio Grande.

## Genus 11. PORINA.

*Mas.* Corpus sat validum. Palpi porrecti, caput non superantes; articulus 3us conicus. Antennæ subpectinatæ, setaceæ, capitis latitudine paullo longiores. Abdomen alas posticas triente

superans. Pedes validi, pilosi. Alæ sat angustæ, vix longæ; anticæ apud costam subrectæ, apice subacuminatæ, margine exteriore perobliquo.

*Porina, Stephens, MSS.*

*Male.* Body rather stout. Palpi porrect, extending as far as the head; third joint conical. Antennæ minutely pectinated, setaceous, rather longer than the breadth of the head. Abdomen extending for one-third of its length beyond the hind wings. Legs stout, pilose. Wings hardly long, rather narrow. Fore wings almost straight in front, slightly acuminate at the tips, very oblique along the exterior border; veins much like those of *Hepialus* in structure.

### 1. PORINA NOVÆ ZEALANDIÆ.

*Mas.* *Cervina*; abdomen et alæ posticæ testacea; alæ anticæ vitta discali argentea fusco marginata fascisque duabus exterioribus angustis obliquis interruptis fuscis; posticæ fusco marginatae.

*Porina Novæ Zealandiæ, Stephens, MSS.*

*Male.* Fawn-colour. Abdomen and hind wings testaceous. Fore wings with an irregular discal silvery brown-bordered stripe, and with two exterior slender oblique interrupted brown bands. Hind wings with brownish borders. Length of the body 9—12 lines; of the wings 20—24 lines.

*a—f.* New Zealand. Presented by Dr. Sinclair.

*g, h.* New Zealand. From Mr. Churton's collection.

*i.* New Zealand. Presented by Capt. Parry.

*j—m.* New Zealand. Presented by Capt. Ross.

### Genus 12. OXYCANUS.

Corpus robustum. Palpi distincti. Abdomen alas posticas paullo superans. Pedes validi, pilosi. Alæ longiusculæ, sat angustæ; anticæ apud costam rectæ, apice subacuminatæ, margine exteriore perobliquo. *Mas.*—Antennæ mediocriter pectinatae, thorace paullo longiores. Abdomen apice fasciculatum. *Fæm.*—Antennæ serratae, thorace breviores.

*Oxycanus, Stephens, MSS.*

Body stout. Palpi distinct. Abdomen extending a little beyond the hind wings. Legs stout, pilose. Wings rather long

and narrow. Fore wings straight in front, slightly acuminate at the tips, extremely oblique along the exterior border; veins much like those of *Hepialus* in structure. *Male*.—Antennæ moderately pectinated, a little longer than the thorax. Abdomen tufted at the tip. *Female*.—Antennæ serrated, shorter than the thorax.

- A. Alæ maris albo variæ. - - - Australis, *Stephens*.
- B. Alæ non albo variæ.
  - A. Abdomen rufescens. - - - rufescens, *Walk.*
  - B. Abdomen non rufescens.
    - a. Antennæ mediocriter pectinatæ. fuscomaculatus, *Steph.*
    - b. Antennæ breviter pectinatæ. - - - subvarius, *Walk.*

### 1. OXYCANUS AUSTRALIS.

*Mas.* *Fuscus, subitus cervinus; palpi breves, caput non superantes; antennæ fulvæ; alæ antice fasciis nonnullis obliquis pallidioribus liturisque plurimis necnon vitta discali albidis subargenteis.* Fœm.—*Cervina*.

*Oxycanus australis, Stephens, MSS.*

*Male*. Brown, fawn-colour beneath. Palpi short, not extending beyond the head. Antennæ tawny. Abdomen, legs and hind wings fawn-colour. Fore wings with several irregular oblique paler bands, and with many whitish somewhat silvery marks, and with a discal stripe of the same hue. *Female*.—Fawn-colour. Length of the body 12—18 lines; of the wings 34—38 lines.

- a. Australia. From Mr. Stevens' collection.
- b. Van Dieman's Land. From Mr. A. J. Smith's collection.
- c, d. Van Dieman's Land. Presented by J. G. Children, Esq.
- e, f. Australia. Presented by Major-Gen. Hardwicke.

### 2. OXYCANUS FUSCOMACULATUS.

*Mas.* *Fuscus; palpi caput superantes, articulo 3o longi-conico; antennæ testaceæ; alæ albido-fuscæ, anticæ strigis plurimis transversis guttisque marginalibus obscure fuscis; posticæ fasciis duabus guttularibus obscure fuscis.*

*Var. β.* *Alæ anticæ obscure fuscæ, strigis discalibus testaceis; posticæ cinereo-fuscæ, basi testaceæ.*

*Oxycanus fuscomaculatus, Stephens, MSS.*

*Male.* Brown. Palpi extending beyond the head; third joint elongate-conical, much shorter than the second. Antennæ testaceous. Wings whitish brown. Fore wings with numerous transverse dark brown marks, and with a marginal row of dark brown dots. Hind wings with two bands of dark brown dots, one submarginal, the other marginal. Length of the body 8—14 lines; of the wings 20—30 lines.

*Var. β.* Fore wings dark brown, with some irregular testaceous marks in the disk. Hind wings grayish brown, testaceous towards the base.

*a—e.* New Holland. Presented by Major-Gen. Hardwicke.

*f.* Van Dieman's Land. From Mr. A. J. Smith's collection.

*g—i.* Van Dieman's Land. Presented by J. G. Children, Esq.

*j—l.* Van Dieman's Land. Presented by — Walcott, Esq.

*m—o.* Van Dieman's Land. Presented by Capt. James C. Ross.

*p—s.* Van Dieman's Land. Presented by Morton Allport, Esq.

*t.* Moreton Bay. From Capt. Parry's collection.

*u, v.* Van Dieman's Land. Presented by R. Butler, Esq.

### 3. OXYCANUS RUFESCENS.

*Mas.* *Obscure fuscus; antennæ testaceæ; abdomen rufescens; pedes ex parte rufescentes; alæ anticæ fuscæ, ad costam obscuriores, fasciis obliquis cervinis nigro guttatis; posticæ pallidiores basi rufescentes.*

*Male.* Head, thorax and costa of the fore wings dark brown. Antennæ testaceous. Abdomen and legs mostly reddish. Fore wings brown, with imperfect oblique fawn-coloured bands, which contain blackish dots. Hind wings paler, reddish towards the base. Length of the body 10 lines; of the wings 26 lines.

*a.* Presented by Morton Allport, Esq.

### 4. OXYCANUS SUBVARIUS.

*Mas.* *Fuscus; antennæ testaceæ subpectinate; abdomen fulvescens; alæ cervinæ, anticæ fasciis indistinctis annulisque cinereis, posticæ semihyalinæ.*

*Male.* Brown. Antennæ pale testaceous, very slightly pectinated. Abdomen tawny. Wings dull pale fawn-colour. Fore wings with indistinct oblique cinereous bands, which are alternate with rows of cinereous ringlets. Hind wings semihyaline. Length of the body 9—10 lines; of the wings 20—24 lines.

*a—c.* Van Dieman's Land. Presented by — Walcott, Esq.

## Genus 13. PIELUS.

*Corpus crassum. Palpi porrecti, clavati, caput superantes; articulus 3us brevissimus. Antennæ thoracis longitudine. Abdomen alas posticas paullo superans. Pedes validi, pilosi. Alæ longiusculæ, sat angustæ; anticæ apud costam subrectæ, apice subacuminatæ, margine exteriore perobliquo. Mas.—Antennæ sat late pectinatæ. Fæm.—Antennæ breviter pectinatae.*

*Pielus, Stephens, MSS.*

*Cossus, p., Donov.; Boisd.*

*Epiolus, p., Herr.-Schæff.*

Body thick. Palpi porrect, clavate, extending rather beyond the head; third joint very short. Antennæ as long as the thorax. Abdomen extending a little beyond the hind wings. Legs stout, pilose. Wings rather long and narrow. Fore wings almost straight along the costa, slightly acuminated at the tips, extremely oblique along the exterior border; veins like those of *Hepialus* in structure. *Male*.—Antennæ rather deeply pectinated. *Female*.—Antennæ very slightly pectinated.

## 1. PIELUS HYALINATUS.

*Mas. Luteus; abdomen subpurpurascens; alæ anticæ vitta basali, striga obliqua discali furcata fasciaque obliqua postice abbreviata albis; posticæ pallide purpureæ marginibus latis luteis.*

*Epiolus hyalinatus, Herr.-Schæff. Lép. Exot. Sp. Sér. 1, pl. 11, f. 50.*

*Male.* Luteous. Abdomen, except towards the tip, tinged with pale purple. Fore wings near the base with a white longitudinal stripe, beyond which there is a white oblique discal streak, which is forked in front, and is succeeded by a more oblique white band, which extends to the tip of the wing, and is shortened hindward. Hind wings pale purplish, with broad luteous borders.

New Zealand.

*Var. Mas. Fuscus; antennæ fulvæ; abdomen pallide roseum, apice subfuscum; pedes ex parte rosei; alæ anticæ argenteo variae, posticæ basi costaque subroseis.*

*Var.? Male.* Brown. Antennæ tawny. Abdomen pale rose-colour, tinged with brown towards the tip. Legs partly rose-colour. Fore wings with silvery marks as in *var. a.* Hind wings

pale rose-colour towards the base and in front. Length of the body 19 lines; of the wings 48 lines.

a. Van Dieman's Land. From Mr. A. J. Smith's collection.

### 2. PIELUS TASMANIÆ.

Mas. *Cinereo-fuscus; alæ anticæ strigis plurimis minutis intricatis albidis, vitta discali fasciaque exteriore perobliqua argenteis nigro marginatis.*

Pielus Tasmaniæ, Stephens, MSS.

*Male.* Cinereous-brown. Fore wings with very numerous minute intricate whitish marks, with a discal irregular silvery stripe, and with an exterior very oblique silvery band; both these have blackish borders. Length of the body 17 lines; of the wings 38 lines.

a. Van Dieman's Land. Presented by — Walcott, Esq.

### 3. PIELUS ATRIPALPIS.

Mas. *Nigro-fuscus; palpi nigri, apices versus ex parte testacei; antennæ ferrugineæ; alæ anticæ vitta discali fasciaque perobliqua argenteis.*

Pielus atripalpis, Stephens, MSS.

This species is very nearly allied to *P. labyrinthicus*, but may be distinguished by the darker fore wings, which have not the labyrinth-like marks of the species.

Blackish brown. Palpi black, partly testaceous at the tips. Antennæ ferruginous. Fore wings with a silvery stripe, which is occasionally united to an extremely oblique exterior silvery band; the latter, like the stripe, is sometimes accompanied by a silvery dot. Length of the body 22 lines; of the wings 58 lines.

Var. β. Fore wings with the silvery band interrupted and macular hindward.

a, b. Van Dieman's Land. Presented by Morton Allport, Esq.  
c, d. Van Dieman's Land. From Mr. A. J. Smith's collection.

### 4. PIELUS LABYRINTHICUS.

*Alæ anticæ fusco-cinereæ, strigis liturisque argenteis, lineisque numerosis intricato involutis labyrinthi formibus fuscis; posticæ fusco-rufescentes.*

*Cossus labyrinthicus*, *Donov. Epit. Ins. New Holl.* pl. *Boisd. Voy. de l'Astrolabe*, Pt. 1. *Lep.* 236, 3.

*Cossus argenteus*, *Donov. Epit. Ins. New Holl.* pl. *Boisd. Voy. de l'Astrolabe*, Pt. 1. *Lep.* 237, 4.

*Epiolus argenteus*, *Herr.-Schæff. Lép. Exot. Sp. Sér. 1*, pl. 41, f. 47, 48.

The two specimens figured by Herrich-Schæffer differ from all those in the Museum. In the male the basal white stripe is accompanied along the fore side by a row of white spots, and there are also white spots along the inner side of the submarginal white stripe. In the female the inner half of the submarginal white stripe is composed of spots.

Var. *Fuscus*; *alæ anticæ nigro-fuscæ, lituris variis intricatis pallidis, costæ basi flavescentes, vitta discali guttisque albis.*  
*Mas.—Alæ anticæ vitta obliqua guttisque subapicalibus albis.*  
*Fœm.—Alæ anticæ guttis albis nullis, vitta subapicali maculari.*

Var. Brown. Fore wings blackish brown, with various labyrinth-like marks, yellowish at the base of the costa; a white discal stripe extending from near the base to beyond half the length. *Male*.—Fore wings with a white oblique irregular subapical stripe, which as well as the discal stripe is accompanied in front by white dots. *Fœm.*—Fore wings without the white dots, the subapical stripe interrupted or macular. Length of the body 22—30 lines; of the wings 58—82 lines.

*a, b. Australia.* Presented by E. Doubleday, Esq.

*c. Swan River.* From Mr. Stevens' collection.

*d. Australia.* Presented by Major-Gen. Hardwicke.

*e, f. Van Dieman's Land.* Presented by Morton Allport, Esq.

*g, h. Australia.* Presented by the late Earl of Derby.

*i. Adelaide.* Presented by the Entomological Club.

*j. Australia.*

##### 5. PIELUS? SORDIDUS.

Mas. *Nigro-fuscus; thorax postice et abdomen ferruginea; alæ anticæ fascia gracili obliqua discali undulosa nigra; posticæ pallide fuscae, basi ferrugineæ.*

*Epiolus sordidus*, *Herr.-Schæff. Lép. Exot. Sp. Sér. 1*, pl. 11, f. 49, (1853).

*Male.* Blackish brown. Abdomen and hind part of the thorax ferruginous. Fore wings with a slender oblique discal black band, which is recurved on its approach to the hind border, and undulates thence to the base. Hind wings pale brown, ferruginous at the base.

Country unknown.

#### Genus 14. DRACONIA.

Corpus gracile. Antennæ subpectinatæ? thorace non longiores. Abdomen longum, alas posticas superans. Alæ longæ, subfalcatae, sat latæ; anticæ apud costam vix undulatae, margine exteriore denticulatae sat obliquo.

*Draconia*, *Hüb. Verz. Schmett.* (*Phalænæ Fodicantes Hepioli Caducæ*), 197.

Body slender. Antennæ slightly pectinated? not longer than the thorax. Abdomen long, extending for about one-fourth of its length beyond the hind wings. Wings long, slightly falcate, rather broad. Fore wings hardly undulating in front, denticulated and rather oblique along the exterior border.

This genus seems to connect the *Hepialidæ* with the *Bombycidæ*.

#### 1. DRACONIA PERIPHETA.

*Cervina; alæ fusco confertim lituratae, guttis maculis plagisque limpidis.*

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—, *Seba, Thes. iv. pl. 37, f. 9, 10; pl. 57, f. 10, 11.*  
*Phalæna Peripheta, Cram. Pap. Exot. ii. 54, pl. 131, f. G.*

*Draconia Peripheta, Hüb. Verz. Schmett. 197, 2013.*

West Indies.

ADDENDA TO THE PRECEDING FAMILIES  
OF LEPIDOPTERA HETEROCHERA.

*Page 5.*

3. **URANIA FULGENS.**

*c, d.* Nicaragua. From M. De Latre's collection.

*Page 6.*

6. **URANIA RHIPHEUS.**

*b.* Madagascar. From M. Parzudaki's collection.

*Page 8.*

3. **NYCTALENION LUNUS.**

*g, h.* Brazil. From the collection of the Zoological Society.

*Page 12.*

**EUSCHEMON RAFFLESIA.**

Euschemon Rafflesia, *West. Gen. Diurnal Lepid.* 525, pl. 80, f. 5.

*Page 16.*

**CASTNIA CACICA.**

*Nigro-fusca; abdomen lateribus posticis apiceque rufis; alæ antice lunula discali, fascia linearis exteriore recta margineque exteriore albis; postice fascia denticulata, maculisque exterioribus rufis.*

Castnia Cacica, *Boisd. Herr.-Schäff. Lép. Exot. Sp. Sér. 1*, f. 143.  
Colombia.

## CASTNIA HERRICHII.

*Fusca; abdomen album; alæ anticæ macula divisa costali subapicali alba, fasciis duabus angulatis abbreviatis margineque exteriore pallide fuscis; posticæ fascia latissima guttisque exterioribus pallide flavis.*

Castnia Herrichii, Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1, f. 144.

Bolivia.

## CASTNIA HECATE.

*Fusca; abdomen pallide fuscum; alæ anticæ fascia ocellari striataque integra obliquis connexis albis; posticæ croceæ, fascia undulata margineque exteriore nigris.*

Castnia Hecate, Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1, f. 139.

South America.

## CASTNIA CRONIDA.

*Nigro-fusca; caput albo biguttatum; thorax guttis duabus anticus maculisque humeralibus rufis; abdomen album; alæ anticæ costa basali rufa, vitta brevi discali macula subcostali guttis que submarginalibus albis; posticæ albæ, margine nigro-fusco albo guttato.*

Castnia Cronida, Herr.-Schæff. Lép. Exot. Sp. Sér. 1, f. 142.

Surinam.

## Page 17.

## CASTNIA FUTILIS.

*Fusca, subtus testacea; alæ anticæ fasciis duabus indistinctis albidis; posticæ fascia obliqua latiore conspicua alba.*

Very nearly allied to *C. Atymnus*. Brown, pale testaceous beneath. Proboscis tawny. Antennæ black, with luteous tips. Fore wings with two upright white bands, the first obsolete towards the hind border, the second macular; both of them most conspicuous beneath. Hind wings with a broader and oblique white band, testaceous beneath. Length of the body 12 lines; of the wings 34 lines.

a, b. Nicaragua. From M. De Latre's collection.

*Page 18.***5. CASTNIA LICUS.**

*Var. β.* Fore wings with a white complete band, and a short macular white band extending less than half across the wings from the costa at half the distance between the first band and the tips. Hind wings with an orange band extending along the exterior border, interrupted by the veins, and especially so towards the fore border, contiguous to a short white band, which extends from the disk to the interior angle.

a. Rio Negro, Brazil. From Mr. Wallace's collection.

*Page 19.***7. CASTNIA EUDESΜΙΑ.**

*Castnia Eudesmia*, *Herr.-Schæff. Lép. Exot. Sp. Sér. 1, f. 140, 141.*

*Page 22.***16. CASTNIA PELASGUS.**

*Orthia Augias*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Novæ, Sér. 1, pl. 5, f. 8.*

This and the following species differ from the typical *Castnia* in the clubs of the antennæ, which are not falcate.

**CASTNIA PARADOXA.**

*Alæ anticæ fulvæ fusco notatæ guttisque duabus subapicalibus cyanis; posticæ ochraceæ, marginibus nigris albo guttatis.*

*Orthia paradoxa*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Novæ, Sér. 1, pl. 4, f. 16, 17.*

Brazil.

*Page 32.***39. CASTNIA LINUS.**

*Gazera Heliconioides*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Novæ, Sér. 1, pl. 4, f. 16.*

The narrow, elongated and mostly hyaline wings distinguish this species from the typical form of *Castnia*.

## Page 33.

## 42. CASTNIA HESPERIARIS.

*Nigricans ; alæ ochraceo-fulvæ, nigro strigatae et marginatae, anticæ strigis duabus subcostalibus testaceis, posticæ subtus cinereæ lineis undulosis nigricantibus.*

Blackish, stout. Antennæ clavate, falcate, luteous towards the tips. Abdomen towards the base with somewhat ferruginous hairs. Wings orange-tawny, bordered with black, and with interruptedly whitish ciliæ. Fore wings with a trifurcate black streak, which proceeds from the costa, and with two irregular oblique pale testaceous subcostal streaks. Hind wings with slight blackish streaks; under side gray, with several slender oblique blackish undulating bands. Length of the body 12 lines; of the wings 30 lines.

*a, b.* Mexico. From Mr. Glennie's collection.

## 43. CASTNIA YUCCÆ.

*Nigro-fusca ; antennæ capitatae, non falcatae ; alæ basi subfulvescentes, anticæ fascia subapicali incompleta antice duplicata testacea, posticæ testaceo marginatae.*

Eudamus Yuccæ, Boisd.

Blackish brown. Antennæ capitate, not falcate; middle part whitish. Wings with a slight dingy tawny hue at the base. Fore-wings with a subapical irregular incomplete pale testaceous band, which is forked in front. Hind wings with pale testaceous borders; under side with hoary borders, and with a triangular white subcostal spot. Length of the body 10—12 lines; of the wings 24—28 lines.

This species connects the *Castniæ* with the *Hesperiæ*.

*a, b.* Georgia. From Mr. Milne's collection.

## Page 34.

## SYNEMON SOPHIA.

Synemon Sophia, Klug, *Abhandlungen, der Koniglichen Akademie der Wissenschaften zu Berlin* (1850), 248, f. 1, 2.

*Page 35.***SYNEMON THERESA.**

Synemon Theresa, *Klug, Abh. Konig. Akad. Wiss. Berl.* (1850), 249, f. 5, 6.

**SYNEMON MOPSA.**

Synemon Theresa, var.? *Klug.*

**6. SYNEMON SELENE.**

*Corpus fuscum, subtus albidum; abdomen supra cinereum; alæ anticae fusco-cinereæ, medio late fuscæ, ante apicem fusco maculatae, fascia maculari transversa interrupta ante medium lunulaque media albis; posticæ fuscæ, luteo trifasciatæ; omnes subtus albido-testaceæ, fusco maculatae.*

Synemon Selene, *Klug, Abh. Konig. Akad. Wiss. Berl.* (1850), 249, 2, f. 3, 4.

Australia.

**7. SYNEMON NAIS.**

Mas. *Corpus cinereum, subtus pallidum; alæ anticae supra fusco-cinereæ, fascia transversa sinuata ante medium maculaque media cinereis; posticæ luteæ, fascia transversa medio profunde sinuata baseos, maculis ad marginem margineque fuscis; omnes subtus luteæ, fusco maculatae.*

Synemon Nais, *Klug, Abh. Konig. Akad. Wiss. Berl.* (1850), 250 4, f. 7.

Australia.

*Page 37.***1. CORONIS ORITHEA.**

c, d. Spirito Santo, Brazil. From Mr. Bates' collection.

*Page 38.***3. CORONIS JAPET.**

c, d. Spirito Santo, Brazil. From Mr. Bates' collection.

*Page 39.*

## 6. CORONIS LEACHII.

*b, c.* Spirito Santo, Brazil. From Mr. Bates' collection.

*Page 41.*

## AGARISTA LATINUS.

*g, h.* Van Dieman's Land. Presented by Morton Allport, Esq.

*Page 42.*

## 6. AGARISTA EPHYRA.

Agarista Ephyra, Boisd. Herr.-Schæff. Lép. Exot. Sp. Novæ, Sér. 1, pl. 6, f. 27.

*i, j.* Van Dieman's Land. Presented by Morton Allport, Esq.

*Page 43.*

## 8. AGARISTA DONOVANI.

Agarista Donovanii, Herr.-Schæff. Lép. Exot. Sp. Novæ, Sér. 1, pl. 6, f. 28.

## 9. AGARISTA AFFINIS.

Agarista affinis, Herr.-Schæff. Lép. Exot. Sp. Novæ, Sér. 1, pl. 6, f. 29, 130.

## AGARISTA SEMYRON.

*Atra ; thorax albo guttatus ; abdomen pedesque flava ; alæ anticæ guttis basalibus maculisque quinque albis, posticæ albo bimaculatæ.*

Agarista Semyron, Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1, pl. 6, f. 24.

Sumatra.

## AGARISTA FEISTHAMELII.

*Atra ; thorax guttis duabus anticis vittisque quatuor posterioribus albidis ; abdomen postice albo fasciatum ; alæ anticæ strigis transversis cinereis, maculis duabus plagaque arcuata exteriore albis, posticæ disco albo.*

*Agarista Feisthamelii*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1*,  
pl. 6, f. 25.

Australia.

#### AGARISTA BIMACULATA.

*Atra ; thorax albo guttatus ; alæ anticæ maculis tribus discalibus  
albis, macula basali parva, media mediocri, exteriore magna.*

*Agarista bimaculata*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1*,  
pl. 6, f. 26.

Mexico.

#### AGARISTA ERIOPIS.

*Atra ; thorax albo guttatus ; abdomen luteum guttis dorsalibus  
atris ; alæ anticæ guttis basalibus maculisque tribus discalibus  
albis, posticæ luteæ nigro marginatæ.*

*Agarista eriopis*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1*, pl. 7,  
f. 31.

Madagascar.

#### AGARISTA PEDASUS.

*Atra ; thorax albo guttatus ; abdomen sordide lutescens maculis tri-  
gonis dorsalibus apiceque nigris ; alæ fimbria ex parte alba,  
anticæ macula discali fascia que brevi obliqua incisa exteriore  
albis, posticæ disco albo.*

*Agarista Pedasus*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1*, pl.  
7, f. 32.

Madagascar.

#### AGARISTUS AGRIUS.

*Atra ; caput et thorax anticus albo guttata ; abdomen luteo fascia-  
tum et marginatum ; alæ anticæ fascia brevi subobliqua, pos-  
ticæ vitta interrupta brevi latissima pallide flavis.*

*Agarista Agrius*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1*, pl. 7,  
f. 33.

Madagascar.

## AGARISTA ZEA.

*Atra; caput et thorax albo guttata; abdomen luteo fasciatum; alæ ciliis albo guttatis, anticæ guttis basim versus albis et cinereis fasciaque exteriore incisa subobliqua albis, posticæ subtus rufæ nigro marginatæ.*

Agarista Zea, Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1, pl. 7, f. 34, 35.

Casamanca.

## Page 46.

## 1. EUSEMIA BELLATRIX.

Eusemia adulatrix, Kollar, Von Hugel, Kasch. 464, 1, pl. 20, f. 1.

g. North India. From Mr. James' collection.

## 4. EUSEMIA MACULATRIX.

e. Java. From Mr. Stevens' collection.

## Page 50.

## 8. EUSEMIA EUPHEMIA.

Heraclia Euphemia, Hübn. Verz. Schmett. 180, 1855.

i. Port Natal. From M. Gueinzius' collection.

## Page 54.

## 16. EUSEMIA TERMINATIS.

Mas. *Nigra; caput et thorax albo guttata; abdomen luteo fasciatum; pedes albo vittati, postici lutei; alæ anticæ guttis basalibus canescensibus maculis quinque strigaque postica albis; posticæ luteæ nigro marginatæ.*

Male. Black. Head and thorax with white dots. Abdomen with luteous bands; tip luteous. Legs striped with white; hind legs mostly luteous. Wings with white apical ciliæ. Fore wings with bluish dots towards the base, with five white discal spots, and with a white streak on the interior border. Hind wings luteous, with broad black borders. Length of the body 10 lines; of the wings 26 lines.

a. —? From the collection of the Zoological Society of London.

## 17. EUSEMIA TRANSIENS.

Mas. *Fusca, subitus lutea; antennæ nigrae; abdomen luteum; alæ antice rufo-fuscæ, lineis transversis ocellisque duabus anticis canis, fasciaque exteriore latu alba; posticæ luteæ, nigro late marginatæ.*

*Male.* Brown. Antennæ black, slender, almost setaceous. Abdomen and legs luteous. Fore wings reddish brown, with some hoary transverse lines, and two very slender hoary ocelli in front of the disk, outer ocellus much larger than the inner one; a broad white band beyond the middle. Hind wings luteous, with broad black borders. Length of the body 8 lines; of the wings 16 lines. A link between *Eusemia* and the *Noctuites*.

*a, b.* Java. From Mr. Argent's collection.

## 1. HECATESIA FENESTRATA.

*d, e.* New Holland.

Page 55.

## 1. ÆGOCERA VENULIA.

*h, i.* Punjab. Presented by General Hearsay.

Page 56.

## 2. ÆGOCERA RECTILINEA.

Ægocera rectilinea, Guér. *Icon. Règne Anim. Ins.* pl. 84, bis. f. 2.

## 3. ÆGOCERA LATREILLII.

Ægocera Latreillii, Boisd. *Herr.-Schäff. Lép. Exot. Sp. Novæ, Sér. 1,* pl. 5, f. 19.

Ægocera magna, Cat. *Lep. Het.* 56.

Casamanca.

## ÆGOCERA MÆNAS.

*Nigricans; thorax albo guttatus; abdomen fasciis interruptis albis, apice luteum; alæ antice plagis duabus magnis flavis, posticæ albæ nigro marginatæ.*

Ægocera Mænas, Boisd. *Herr.-Schäff. Lép. Exot. Sp. Novæ, Sér. 1,* pl. 5, f. 20, 21.

Casamanca, Senegal.

*Page* 60.

Genus 13. PHÆGORISTA.

Phægorista, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1.*  
Metagarista, *Cat. Lep. Het. 60.*

1. PHÆGORISTA LEUCOMELA.

Phægorista leucomela, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1,*  
pl. 5, f. 22, 23.

Metagarista triphænoides, *Cat. Lep. Het. 61.*

Senegal.

*Page* 67.

3. ZYGÆNA MINOS.

Anthrocera Minos, *Ent. Annual for 1855*, 40, pl. f. 1.

g. West Coast of Ireland. Presented by F. Smith, Esq.

*Page* 72.

12. ZYGÆNA SARPEDON.

Var. Z. Mannii, *Herr.-Schæff. Schm. Eur. 109, 110.*

*Page* 86.

34. ZYGÆNA FILIPENDULÆ.

Dele Z. Mannii, &c.

uu, ww. Europe. From M. Becker's collection.

xx, yy. France.

*Page* 89.

37. ZYGÆNA PEUCEDANI.

c. ——?

*Page* 90.

38. ZYGÆNA EPHIALTES.

Var. Coronillæ.

f. Europe. From M. Becker's collection.

*Page* 92.

**39. ZYGÆNA LAVANDULÆ.**

*Z. Medicaginis*, p. 83, is a variety of this species.

**40. ZYGÆNA RHADAMANTHUS.**

e. Pyrenees.

*Page* 93.

**42. ZYGÆNA CAFFRA.**

*Zygæna hottentota*, Boisd.; Herr.-Schæff. Lép. Exot. Sp. Novæ, Sér. 1, f. 218.

*Page* 102.

**62. ZYGÆNA GANYMEDES.**

Nearly allied to *Z. Fausta*.

*Page* 104.

**69. ZYGÆNA CENTAUREÆ.**

Nearly allied to *Z. Meliloti*.

*Page* 105.

**77. ZYGÆNA SERPYLI.**

*Nigro-cyanescens*; alæ anticæ maculis sex rubris, posticæ rubræ margine latiusculo nigro.

*Zygæna Serpyli*, MSS.

Nearly allied to *Z. Filipendulæ*, but with a broader black border on the hind wings.

*Page* 106.

**1. PROCRIS STATICES.**

*Sphinx Atychia Statices*, Freyer, Schmett. i. 118, 112, pl. 62, f. 1.  
*Atychia Statices*, Eversm. Lép. Faun. Ural. 91, 2.

ss. Europe. From Dr. Frivaldszky's collection.

## 3. PROCRIS GLOBULARIÆ.

*Sphinx Atychia Globulariæ*, Freyer, Schmett. i. 119, 113, pl. 62, f. 2.

*Page* 110.

## 11. PROCRIS RUFIVENTRIS.

*c, d.* Swan River. Presented by Sir J. Richardson.

*Page* 112.

## 17. PROCRIS INFESTA.

*a—d.* Europe. From M. Becker's collection.

*e. —?*

*Page* 113.

## 18. PROCRIS CONCINNA.

*Zygæna concinna*, p. 80.

*Procris contraria*, p. 113.

*d, e.* Port Natal. From M. Gueinzius' collection.

## 19. PROCRIS NEBULOSA.

Mas et Fœm. *Albida*; *antennæ atræ*; *alæ marginibus subcineris, ciliis nigricantibus*.

*Ino nebulosa*, Boisd. Herr.-Schæff. Lép. Exot. Sp. Novæ, Sér. 1, f. 221.

*Male and female.* Whitish. Antennæ deep black. Legs black. Wings slightly grayish along the fringe, which is blackish. *Male.*—Antennæ deeply pectinated. Wings a little darker than those of the female. *Female.*—Antennæ subclavate, minutely serrated. Length of the body  $4\frac{1}{2}$  lines; of the wings 12—13 lines.

*a.* Port Natal. From M. Gueinzius' collection.

*b.* Cape. From M. Dregé's collection.

*Page* 114.

## 1. POLLANISUS VIRIDIPULVERULENTUS.

*i, j.* Van Dieman's Land. Presented by Morton Allport, Esq.

*Page* 120.

**3. SYNTOMIS SCHÖNHERRI.**

*j.* North India. From Mr. Stevens' collection.

*Page* 121.

**9. SYNTOMIS CERBERA.**

*t.* Port Natal. From M. Becker's collection.

*Page* 124.

**18. SYNTOMIS POLYDAMON.**

Cacoethes Polidamon, *Hüb. Verz. Schmett. (Phalænæ Veræ Hippocritæ Sphingiformes)*, 170, 1756.—Cacoethes.—Corpus gracile. Abdomen alas posticas dimidio superans. Pedes graciles, longusculi. Alæ angustæ, sat longæ.

*Page* 125.

**19. SYNTOMIS HUBNERI.**

*h.* North India. From Capt. Reid's collection.

**27. SYNTOMIS SIMPLEX.**

*f, g.* Port Natal. From M. Gueinzius' collection.

*Page* 134.

**39. SYNTOMIS DIMINUTA.**

Euchromia diminuta, p. 230.

Allied to *S. cyssea*.

**40. SYNTOMIS TENEBROSA.**

Glaucopis tenebrosa, p. 150.

**41. SYNTOMIS CONFINIS.**

Glaucopis confinis, p. 149.

*Var. Male and female.* Blackish brown. Thorax with two short luteous bands, the one in front, the other hindward. Abdomen somewhat dilated hindward, extending very little beyond the

hind wings, with three luteous stripes above, and with a discal luteous stripe beneath. Wings rather broad, somewhat rounded at the tips, with a blackish brown border, which in the fore wings is irregularly dilated or excavated, and extends from the costa across the tip of the discal areolet. *Male*.—Antennæ moderately pectinated. Border of the hind wings much broader than that of the female. *Female*.—Antennæ distinctly serrated. Length of the body  $3\frac{1}{2}$  lines; of the wings 10—11 lines.

Hindostan. In Mr. Saunders' collection.

#### 41. SYNTOMIS SUBAURATA.

*Glaucopis subaurata*, p. 149.

#### 42. SYNTOMIS HUMERALIS.

Mas et fœm. *Cyaneo-nigra*; *fasciis alba*; *thorax maculis duabus lateralibus rufis aut luteis*; *abdomen luteo unifasciatum*; *alæ limpidæ, anticæ apicibus macula discali dimidiisque fere basali nigro-fuscis necnon macula basim versus limpida, posticæ limpidæ, anticæ testaceæ marginibus et nonnunquam fascia nigro-fuscis*.

*Male and female*. Bluish black. Head white in front. Thorax with a red spot at the base of each fore wing. Abdomen with a luteous band beyond the middle. Wings limpid, rather long and broad. Fore wings brownish, black about the tips, and for nearly half the length from the base, with the exception of a vitreous subdivided spot towards the costa; a blackish brown spot on the end of the discal areolet, connected with the same hue at the tip of the wing; external veins more or less clouded with blackish brown. Hind wings mostly bordered with blackish brown, testaceous in front, and with a blackish brown middle band of variable breadth. Length of the body 6 lines; of the wings 12—14 lines.

*Var. β. Male*. Thorax with two luteous spots. Fore wings with the dark hue on the discal areolet not connected with that at the tip of the wing. Hind wings without a middle band. *Male*.—Antennæ moderately pectinated. *Female*.—Antennæ indistinctly serrated.

Hindostan. In Mr. Saunders' collection.

## 43. SYNTOMIS SIGNATA.

Fœm. *Cyaneo-nigra*; facies, thoracis fascia antica maculæque sex abdominisque fasciæ luteæ; alæ limpidæ, marginibus et anticarum vitta brevi strigaque transversa purpureo-nigris.

*Female.* Structure of *S. humeralis*. Bluish black. Head luteous in front. Antennæ simple, subsetaceous, not serrated. Thorax luteous in front and at the base of each fore wing, and with two luteous spots on each side hindward. Abdomen with a luteous band on each segment. Wings limpid, moderately broad, with purplish black borders, which are dilated at the tips. Fore wings with a purplish black streak extending from the tip of the discal areolet to the apical border, and another from the hind side of the discal areolet to the interior border. Length of the body 5 lines; of the wings 13 lines.

Java. In Mr. Saunders' collection.

## 44. SYNTOMIS DOLOSA.

Mas. *Nigra*; alæ cupreo-nigræ, anticæ striga subcostali fasciisque duabus exterioribus macularibus albis.

*Male.* Black. Antennæ moderately pectinated. Wings cupreous-black, moderately broad. Fore wings with a white streak near the costa towards the base, and with two macular white bands, each consisting of three oblong spots, the fore spot of the outer band subdivided. Length of the body 5 lines; of the wings 14 lines.

a. North India. From Mr. James' collection.

## 45. SYNTOMIS VITREA.

Fœm. *Nigra*; facies, thoracis vittæ quatuor abdominisque fasciæ luteæ; alæ lurido-vitreæ marginibus nigris, anticarum venis 1a 3aque inferioribus nigro marginatis.

*Female.* Nearly allied to *S. fenestrata*. Black. Head luteous in front. Antennæ subsetaceous, very minutely serrated. Thorax with four imperfect luteous stripes. Abdomen with a luteous band on each segment, the subapical band very broad. Wings vitreous, moderately broad, with a slight lurid tinge, and with a narrow black border. Fore wings with the first and third inferior veins bordered with black. Hind wings with the black margin dilated in the middle of the exterior border. Length of the body  $5\frac{1}{2}$  lines; of the wings 15 lines.

Silhet. In Mr. Saunders' collection.

## 46. SYNTOMIS FUSIFORMIS.

Fœm. *Nigro-fusca, robusta ; facies, thoracis fascia antica, pectoris maculæ quatuor abdominisque fasciæ due luteæ ; antennæ apice albæ ; alæ cupreo-nigræ, anticæ maculis quatuor, posticæ macula basali limpidis.*

*Female.* Structure of *S. annulata*. Blackish brown, rather stout. Head luteous in front. Antennæ black, minutely serrated, with white tips. Thorax with a luteous band in front. Pectus with two luteous spots on each side. Abdomen with two luteous bands, one at the base, the other beyond the middle. Wings moderately broad, with a slight cupreous tinge. Fore wings with four limpid spots; first and second before the middle, the hind one much longer than the fore one; third and fourth subapical, subdivided, the hind one much larger than the fore one. Hind wings with a limpid basal spot. Length of the body 5 lines; of the wings 13 lines.

Hindostan. In Mr. Saunders' collection.

## 47. SYNTOMIS TENUIS.

Mas. *Fusco-nigra ; facies flava ; antennæ apice albæ ; thorax fascia antica maculæque due luteæ ; abdominis segmenta luteo fasciatæ ; alæ anticæ maculis quinque, posticæ duabus luteis.*

Allied to *S. Polydamon*. *Male.*—Brownish black. Face yellow. Antennæ black, with white tips, minutely serrated, about three-fourths of the length of the body. Thorax with a luteous band in front, and a luteous mark at the base of each fore wing. Abdomen with a luteous band on each segment. Wings rather long and narrow. Fore wings with five elongated luteous spots; first basal; second and third intermediate; fourth and fifth subapical and subdivided. Hind wings with two luteous spots, the first basal and elongated, the second nearly round and much smaller. Length of the body 5 lines; of the wings 12 lines.

*a.* Celebes. From Madame Ida Pfeiffer's collection.

## 48. SYNTOMIS TENEIFORMIS.

Mas. *Fusco-nigra ; thorax fascia antica maculisque sex luteis ; abdomen vittis duabus dorsalibus discoque ventrali luteis ; alæ cupreo-nigræ, anticæ maculis quatuor, posticæ disco basali limpidis.*

Structure of *S. Polydamon*. *Male*.—Brownish black. Antennæ black, slender, very minutely serrated, a little more than half the length of the body. Thorax with a luteous band in front, a luteous spot at the base of each fore wing, and two diverging luteous spots on each side hindward. Abdomen with two luteous dorsal stripes; under side with a luteous disk. Wings rather long and narrow, with a slight cupreous and purplish tinge. Fore wings with four limpid spots; first and second elongated, hind one about thrice the size of the fore one; third and fourth shorter, the hind one larger than the fore one. Hind wings with the disk limpid for more than half the length of the base. Length of the body 4 lines; of the wings 10 lines.

Hindostan. In Mr. Saunders' collection.

#### 49. SYNTOMIS CUPREA.

Mas. *Cupreo-nigra*; *abdomen fasciis late cupreis*; *alæ angustæ, anticæ strigis quatuor limpidis, posticæ limpidæ nigro marginatæ*.

*Male*. Cupreous-black. Antennæ moderately pectinated, about two-thirds of the length of the body. Abdomen with a bright cupreous band on each segment. Wings narrow. Fore wings with two limpid streaks at the base, the hind one longer than the fore one; two shorter limpid discal streaks, the hind one oblique, shorter, and a little in advance of the fore one. Hind wings limpid, with black borders, which are broadest in front. Length of the body 4 lines; of the wings 9 lines.

Hindostan. In Mr. Saunders' collection.

#### 50. SYNTOMIS QUADRICOLOR.

Fœm. *Cyaneo-viridis*; *abdomen cupreum*; *alæ angustæ, anticæ nigrae basi virides, posticæ subcinereæ semihyalinæ antice nigrae*.

*Female*. Bright bluish metallic green. Antennæ wanting. Abdomen cupreous. Wings narrow. Fore wings black, green at the base. Hind wings grayish, subhyaline, black along the fore border. Length of the body 4 lines; of the wings 10 lines.

This species and *S. cuprea* seem to connect *Syntomis* with *Procris*.

Hindostan. In Mr. Saunders' collection.

### Genus PSICHOTOE.

Palpi brevissimi, hirsuti, oculos vix attingentes. Antennæ erassiusculæ, cylindricæ, medio suberassiores, ex articulis moniliformibus distinctissimis compositæ. Abdomen complanatum, dilatatum. Tibiæ posticæ calcaribus minimis. Alæ subnudæ.  
Psichotoe, Boisduval, Mon. Zyg. 129.

Very nearly allied to *Syntomis*. *Female*.—Body rather slender. Palpi very short. Antennæ rather stout, distinctly serrated, about two-thirds of the length of the body. Abdomen slightly dilated hindward. Legs rather short and slender; hind tibiæ with four very minute spurs. Wings of one colour, semihyaline, very slightly clothed. Fore wings with the first and second inferior veins contiguous at the base; third about twice further from the fourth than from the second.

#### 1. PSICHOTOE DUVAUCELII.

*Nigricans, hirsuta, scutello abdominisque fascia flavis; alæ subdiaphanæ.*

Psichotoe Duvaucelii, Boisd. Mon. Zyg. 129.

Hindostan.

### Genus TASEMA.

*Mas.* Corpus gracillimum. Palpi brevissimi. Antennæ latissime pectinatæ, apices versus subpectinatæ. Abdomen oblanceolatum. Pedes gracillimi; tibiæ posticæ calcaribus nullis. Alæ perangustæ, anticæ opacæ, posticæ semihyalinæ.

*Male.* Body very slender. Palpi very short. Antennæ about three-fourths of the length of the body, deeply pectinated for three-fourths of the length, hardly pectinated from thence to the tips. Abdomen oblanceolate. Legs very slender; hind tibiæ without spurs. Wings very narrow; fore wings opaque; hind wings semihyaline; structure of the veins much like that of *Syntomis*.

#### 1. TASEMA BIPARS.

*Mas. Nigra; alæ anticæ cupreo-nigræ, posticæ subcinereæ semi-hyalinæ marginibus obscurioribus.*

*Male.* Black. Fore wings cupreous-black. Hind wings grayish, subhyaline, with darker borders. Length of the body  $3\frac{1}{2}$  lines; of the wings 7 lines.

Hindostan. In Mr. Saunders' collection.

## Genus SERYDA.

*Mas.* Corpus gracillimum. Proboscis mediocriter longa. Palpi brevissimi. Antennæ mediocriter pectinatæ, corpore vix breviores. Abdomen alas posticas dimidio superans; latera apice fasciculata. Pedes gracillimi; tibiæ posticæ calcaribus minutis apicalibus. Alæ angustæ, ciliatæ.

*Male.* Allied to *Procris*. Body very slender. Proboscis moderately long. Palpi very short. Antennæ nearly as long as the body, moderately pectinated. Abdomen tufted on each side at the tip, extending for full half its length beyond the hind wings. Legs very slender; hind tibiæ with minute apical spurs. Wings narrow, ciliated. Fore wings with the first and second inferior veins springing from a common petiole; third remote.

## 1. SERYDA CINCTA.

*Mas.* *Cyaneo-nigra*; alæ anticæ apud costam rectæ, apice rotundatae, margine exteriore perobliquo; abdominis dimidium basale coccineum.

*Male.* Black, tinged with blue. Fore wings straight in front, rounded at the tips, extremely oblique along the exterior border. Abdomen crimson for half the length from the tip. Length of the body 2 lines; of the wings 6 lines.

Valley of the Amazon. In Mr. Saunders' collection.

## Genus APERLA.

*Fæm.* Corpus gracillimum. Proboscis mediocriter longa. Palpi porrecti, graciles, sat longi; articulus 3us parvus. Antennæ setaceæ, validæ, subpectinatæ, corpore paullo breviores. Abdomen alas posticas longe superans. Pedes sat validi; tibiæ posticæ calcaribus quatuor longis. Alæ perangustæ, ciliatæ; anticæ apud costam rectæ, apice rotundatae, margine exteriore perobliquo.

Allied to *Procris*. *Female*.—Body very slender. Proboscis moderately long. Palpi porrect, straight, slender, moderately long; third joint small. Antennæ setaceous, rather stout, minutely and thickly pectinated, about three-fourths of the length of the body. Abdomen extending for full three-fourths of its length beyond the hind wings. Legs rather stout; hind tibiæ with four long spurs. Wings very narrow, ciliated. Fore wings straight in front, rounded at the tips, very oblique along the exterior border.

## 1. APERLA TINEIFORMIS.

Fœm. *Cyaneo-nigra*; *alæ anticeæ opacæ, posticæ sublimpidæ nigrō marginatæ*.

*Female.* Bluish black. Fore wings opaque. Hind wings nearly limpid, with black borders. Length of the body 3 lines; of the wings 8 lines.

Parà. In Mr. Saunders' collection.

## Genus GLAUCOPIS.

*Glaucopis*, *Fabr. Illig. Mag.* vi. 289.

*Glaucopes*, p., *Hübn. Verz. Schmett.* 122.

The *Zygænidæ* (including the *Procrides* and *Glaucopides* of Boisduval), the *Chalcosiidae*, the *Lithosiidae* and the *Arctiidæ* form a natural and definite group, which is connected, by means of *Trichosoma* and some other genera, with the other great group, which contains the *Liparidæ*, *Psychidæ*, *Notodontidæ*, *Limacodidæ*, *Drepanulidæ*, *Saturniidæ*, *Bombycidæ*, *Cossidæ* and *Hepialidæ*. The two groups, each of which may be distinguished by a name, mostly differ from each other by the following characters:—

*First group.* Flight very generally diurnal. Proboscis or maxillæ very generally developed. Palpi generally elongated. Antennæ simple or moderately pectinated. Body slightly or moderately hairy. Wings with bright and frequently with metallic colours or vitreous. Connected with the *Hesperiidæ* through the *Castnii* and the *Cydimonii*, with the *Noctuites* by some genera of *Arctiidæ*, and apparently with the *Pyralites* and the *Tineites* by a few *Lithosiidae*, and with the following group by means of *Trichosoma* and *Orgyia*, &c.

*Second group.* Flight very generally nocturnal. Proboscis very generally obsolete. Palpi very frequently short and concealed. Antennæ most often very deeply pectinated in the males. Body, with a few exceptions, very hairy. Wings (excluding the *Saturniidæ*) dull or white, rarely thinly feathered or vitreous. Connected with the *Noctuites* through some genera of *Notodontidæ*, with the *Tineites* by the *Psychidæ*, and closely joined to the *Ægeriidæ* by means of the *Cossidæ*, which family may also connect them with *Depressaria* and other *Micro-Lepidoptera*.

*Page 141.*

Genus NORTHIA.

1. NORTHIA CYANECULA.

Nov. gen. cyanecula, *Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1, f. 224.*

*Glaukopis nigrigemma*, p. 141.

Genus TASCIA.

*Mas.* Corpus sat validum, sublineare. Proboscis thoracis longitudine. Palpi porrecti, graciles, caput non adæquantes; artculus 3us gracilis, elongatus. Antennæ robustæ, breviter pectinatæ, corpore paullo breviores. Abdomen alas posticas dimidio superans. Tibiæ posticæ calcaribus duobus parvis apicalibus. Alæ sat angustæ; anticæ margine exteriore perobliquo venis quatuor superioribus quatuorque inferioribus.

*Male.* Body moderately stout, nearly linear. Proboscis as long as the thorax. Palpi porrect, slender, not extending so far as the head; third joint slender, elongated. Antennæ stout, pectinated, about three-fourths of the length of the body; branches short. Abdomen very slightly widening from the base nearly to the tip, extending for about half its length beyond the hind wings. Legs moderately stout; hind tibiæ with two small apical spurs. Wings rather narrow. Fore wings rounded at the tips, extremely oblique along the exterior border; discal areolet not divided; four superior veins; second inferior vein as far from the third as from the first; third full six times further from the fourth than from the second.

This genus and *Northia* connect the *Zygænidæ* with the *Chalcidiidæ*.

1. TASCIA CHRYSOTELUS.

*Mas.* Viridis; abdomen fasciis duabus nigris, apice cupreo; alæ anticæ cupreo-nigræ fascia discali limpida; posticæ viridinigræ, costa cupreo-nigra, disco basali limpido.

*Male.* Metallic green. Proboscis testaceous. Antennæ with black branches. Abdomen with a black band at the base, and another beyond the middle; tip cupreous; under side black with a green stripe on each side. Legs black. Fore wings cupreous-black, with a short divided discal limpid band beyond the middle.

Hind wings greenish black, cupreous-black along the costa; disk towards the base limpid; under side bright bluish green along the costa. Length of the body 4 lines; of the wings 12 lines.

a. Port Natal. From M. Gueinzius' collection.

*Page 142.*

**Genus PSEUDOMYA.**

Palpi extending beyond the head; third joint elongated. Abdomen extending for three-fourths of its length beyond the hind wings. Hind tibiæ with two short apical and two very minute middle spurs. Wings narrow. Fore wings with two superior and four inferior veins. *Male*.—Antennæ moderately pectinated. *Female*.—Antennæ minutely pectinated.

*Page 143.*

**PSEUDOMYA BIBIA.**

h. Parà. From Mr. Stevens' collection.

*Page 148.*

**PSEUDOMYA STULTA.**

*Laemocharis stulta*, *Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1*, f. 258.

*Glaucopis dolens*, p. 148.

*Var.* Fore wings blackish from the base to the middle.

Valley of the Amazon.

*Page 147.*

**PSEUDOMYA HÆMATICA.**

*Laemocharis Zantes, Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1*, f. 240.

*Glaucopis hæmatica*, p. 147.

**PSEUDOMYA CONSOLATA.**

Fœm. *Atra; caput cyaneum; thorax pallide rufus; abdomen maculis transversis lateralibus cyaneis; coxae et femora subtus cyanea; alæ limpidæ, marginibus angustis apicibusque nigris, areolæ discalis apice nigro limbato.*

*Female.* Deep black. Head blue. Thorax pale red. Abdomen with transverse blue spots along each side. Coxæ and femora blue beneath. Wings narrow, limpid, with black tips and narrow black borders; veins across the tip of the discal areolet slightly clouded with black. Length of the body  $3\frac{1}{2}$  lines; of the wings 10 lines.

Brazil. In Mr. Saunders' collection.

The following species and *P. afflita* differ slightly in structure from the typical species of the genus.

#### PSEUDOMYA DESPERATA.

Fœm. *Nigra*; *antennæ serratæ*; *abdomen alas posticas plus dimidio superans*; *tibiæ posticæ calcaribus mediis minimis, apicalibus longiusculis*; *alæ angustæ, subcinereæ, venis marginibus nigris*.

*Female.* Black. Palpi porrect, lanceolate, extending a little beyond the head; third joint acuminate. Antennæ serrated. Abdomen extending for more than half its length beyond the hind wings. Hind tibiæ with four spurs; middle pair small; apical pair rather long. Wings narrow, slightly grayish, with black veins and narrow black borders. Length of the body 3 lines; of the wings 8 lines.

Valley of the Amazon. In Mr. Saunders' collection.

Page 152.

#### Genus GYMNELIA.

*G. Enagrus*, p. 185, *G. acroxantha*, p. 160, and *G. varia*, p. 157, may be added to this genus.

#### GYMNELIA BIJUNCTA.

Fœm. *Atra*; *abdomen guttis duabus basalibus albis, maculis quatuor transversis lateralibus viridibus, apice coccineo*; *alæ limpidæ, marginibus latis nigris, anticæ striga una apud areolæ discalis apicem alteraque postica nigris*.

Allied to *G. Lænnus*. *Female.*—Deep black. Pectus with white marks on each side. Abdomen crimson at the tip, with a white dot on each side at the base, and with two transverse green spots on each side. Wings limpid, with broad black borders. Fore wings with a white dot on each at the base, with a black streak

across the tip of the discal areolet, and another extending from near the base of the discal areolet to the interior border, whence it is continued just into the hind wings, but does not correspond to the black band of the latter in *G. Lænnus*. Length of the body 7 lines; of the wings 18 lines.

*Var. β.* Abdomen and fore wings without white dots, the crimson part of the former occupying a larger space from the tip.

Parà and Valley of the Amazon. In Mr. Saunders' collection.

#### GYMNELIA SIMPLEX.

Fœm. *Atra*; *thoracis margo anticus cyaneus*; *abdomen e guttis cyaneis trivittatum, strigis transversis lateralibus apiceque coccineis, subtus e maculis albis bivittatum*; *alæ limpidæ marginibus latis nigris, anticæ striga apud areolæ discalis apicem nigra*.

Allied to *G. bijuncta*, but without the hind black streak on the fore wings. *Female*.—Deep black. Thorax blue along the fore border. Abdomen with three rows of blue dots, and with transverse crimson streaks along each side; tip crimson; under side with two lateral stripes of white spots. Coxæ white beneath. Wings limpid, with broad black borders. Fore wings with a black streak across the tip of the discal areolet. Length of the body 6 lines; of the wings 16 lines.

Parà. In Mr. Saunders' collection.

#### GYMNELIA XANTHOCERA.

Mas. *Atra*; *antennæ luteæ*; *thorax cyaneo bivittatus*; *abdomen lateribus fasciisque cyaneis*; *alæ limpidæ, nigro marginatae, anticæ fascia latiuscula nigra*.

Nearly allied to *P. acroxantha*. *Male*.—Deep black. Antennæ luteous. Thorax with two indistinct blue stripes. Abdomen blue along each side and on the hind borders of the segments; ventral segments, as in *P. acroxantha*, partly concealed by a blue basal white-fringed plate. Coxæ and femora with whitish tomentum beneath. Wings limpid, with black borders. Fore wings with a black band, which is broad and rather less oblique than that of *P. acroxantha*. Length of the body 8 lines; of the wings 20 lines.

Brazil. In Mr. Saunders' collection.

*Page 154.*

Genus ISANTHRENE.

*G. ustrina*, p. 161, may be added to this genus.

*Page 155.*

ISANTHRENE FLAVICORNIS.

*a—f.* South America.

*g.* South America. From Mr. Johnson's collection.

ISANTHRENE VESPOIDES.

*b.* Villa Nova. From Mr. Bates' collection.

*Page 157.*

ISANTHRENE PORPHYRIA.

Laemocharis machilis, Boisd. Herr.-Schäff. Lép. Exot. Sp. Nov. Sér. 1, f. 245.

*a, b.* Parà. From Mr. Bates' collection.

*c* Villa Nova. From Mr. Bates' collection.

*d.* — ?

*Page 158.*

ISANTHRENE VESPARIA.

*a—d.* Villa Nova. From Mr. Bates' collection.

ISANTHRENE ODYNEROIDES.

Fœm. *Lutea, subitus testacea; vertex cyaneus; thorax nigro quadriplagiatus; abdomen maculis dorsalis cyaneis nigro marginatis fasciisque anticis albis; alæ luteo-hyalinæ.*

*Female.* Luteous, testaceous beneath. Head testaceous; hind vertex blue. Prothorax black, with luteous borders. Thorax with four black stripes. Pectus with a blue spot on each side. Abdomen with a blue black-bordered spot on the hind border of each segment; fore borders of the anterior segments with white bands, which are dilated beneath. Wings luteous-hyaline; veins and ciliæ black. Length of the body 6 lines; of the wings 14 lines.

This species is nearly allied to *I. vesparia*, but may be distinguished by its smaller size, by the hind part of the abdomen, which is not black with blue stripes as in *I. vesparia*, by the posterior tibiæ, which are not striped with black, and by having no black mark on the hind border of the hind wings. In the two last characters it agrees with *I. Porphyria*, but the fore wings have not black tips.

a. Villa Nova. From Mr. Bates' collection.

### ISANTHRENE MUNDA.

Fœm. *Pallide lutea ; antennæ serratæ, nigræ ; thorax vittis tribus fasciaque postica nigris ; abdomen vitta interrupta fasciisque nigris ; tibiæ posticæ nigro vittatæ ; alæ limpidæ, anticæ apice nigræ.*

*Female.* Pale luteous. Antennæ serrated, black, luteous at the base. Prothorax with black borders. Thorax with three black stripes. Metathorax with a black band and a black stripe. Pectus with two interrupted black stripes. Abdomen with dorsal black bands and with an interrupted dorsal black stripe. Hind tibiæ with a short blackish stripe on the outer side. Wings limpid, with black veins and black ciliæ. Fore wings with black tips. Length of the body  $3\frac{1}{2}$  lines ; of the wings 10 lines.

This species especially resembles a Hymenopterous insect, and differs somewhat in structure from the three preceding species. There are but two superior veins ; the first inferior vein is almost straight, and more remote from the discal fold, and the transverse veinlets of the discal areolet form a much more obtuse angle. It is connected with *Pæcirosoma* by means of *P. gaudens*.

a. Santarem. From Mr. Bates' collection.

Page 158.

### Genus PŒCILOSOMA.

*G. xanthogastra*, p. 152, may be added to this genus.

### PŒCILOSOMA SCINTILLANS.

*Laemocharis scintillans*, Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1, f. 244.

*Glaukopis flavitarsis*, p. 158.

*Page 162.*

PŒCILOSOMA PHERES.

*g.* Villa Nova. From Mr. Bates' collection.

*Page 163.*

PŒCILOSOMA MULTICINCTA.

*b.* St. Domingo. From M. Sallé's collection.

*c.* St. Domingo. From Mr. Stevens' collection.

PŒCILOSOMA SPERANS.

Fœm. *Atra; caput supra cyaneum; antennæ apices versus albæ; thorax vittis quatuor cupreis unaque cyanea; abdomen cyaneo trivittatum; coxæ anticæ subtus roseæ; alæ limpidæ, marginibus latis apicibusque nigris, anticæ macula discali nigra.*

*Female.* Deep black. Head pale blue above. Antennæ white above towards the tips. Thorax pale blue on each side in front, with an interrupted pale blue stripe, and with four interrupted and less distinct cupreous stripes. Abdomen with three pale blue stripes. Fore coxæ rosy red beneath. Wings limpid, with black veins and rather broad black borders, which are dilated at the tips. Fore wings with a large black spot at the tip of the discal areolet, which character especially distinguishes this species from *P. Pheres*. Length of the body  $5\frac{1}{2}$  lines; of the wings 14 lines.

Valley of the Amazon. In Mr. Saunders' collection.

PŒCILOSOMA INSPERATA.

Fœm. *Atra; caput antice cyaneum, apud oculos album; antennæ apices versus albæ; thorax maculis duabus anticis unaque postica cyaneo-viridibus; abdomen viridi trivittatum, coxæ anticæ subtus roseæ; alæ nigricantes, anticæ discis subcinereis macula nigra, posticæ discis limpidis.*

*Female.* Deep black. Head deep blue above. Antennæ white above towards the tips. Thorax with a deep blue spot on each side in front, and another on the scutellum. Abdomen with three pale blue stripes, the middle stripe macular. Fore coxæ rosy red beneath. Wings black, with grayish hyaline disks, which blend with the black part in the fore wings; the latter have a large black

spot at the tip of the discal areolet. Length of the body  $5\frac{1}{2}$  lines; of the wings 14 lines.

This species is very nearly allied to *P. sperans*, and may prove to be a mere variety.

Parà. In Mr. Saunders' collection.

### PŒCILOSOMA GAUDENS.

Mas. *Lutea*; *vertex niger, cyaneo bimaculatus*; *antennæ nigro-cyaneæ, ramis fulvis*; *thorax fasciis duabus anticis, vittis tribus scutelloque cyaneis nigro marginatis*; *abdomen vittis tribus macularibus cyaneis fasciisque nigris*; *alæ limpidæ, basi luteæ, marginibus apicibus strigaque transversa discali nigris*.

*Male.* Luteous, paler beneath. Vertex black, with two blue spots. Antennæ bluish black, with tawny branches. Thorax with two bands in front, three stripes and the scutellum blue, with black borders. Abdomen above with a black band on the hind border of each segment, and with three rows of blue spots. Wings limpid, luteous at the base; veins, border, tips and tip of the discal areolet black. Length of the body  $4\frac{1}{2}$  lines; of the wings 11 lines.

Parà. In Mr. Saunders' collection.

### Page 164.

#### Genus LAGARIA.

*Laemocharis*, p., *Boisd.*; *Herr.-Schæff.*

#### LAGARIA VULNERATA.

*Laemocharis vulnerata*, *Boisd.* *Herr.-Schæff.* *Lép. Exot. Sp. Nov.*  
*Sér. 1, f. 238.*

*Glaukopis erytherarchos*, p. 164.

Var. Fœm. *Atra*; *antennæ apice supra albæ*; *thorax guttis duabus anticis albis, lateribus apud alas roseis*; *abdomen e guttis albis trivittatum, lateribus anticis roseis*; *femora tibiæque apice alba*; *alæ limpidæ, nigro marginatæ, anticæ apicibus strigaque discali nigris*.

Var. Female. Deep black. Antennæ white above towards the tips. Thorax with a black dot on each side in front, rosy red about the base of the hind wings. Pectus with a white spot on each side. Abdomen rosy red on each side towards the base, with three

rows of white dots, and with a larger triangular white dot at the base; under side with two rows of white dots. Femora and tibiæ with white tips. Wings limpid, with black veins and borders; hind wings and interior border of the fore wings rosy red at the base; fore wings with black tips and a black streak across the tip of the discal areolet. Length of the body 8 lines; of the wings 20 lines.

Brazil. In Mr. Saunders' collection.

#### LAGARIA HANGA.

Mas et fœm. *Atra*; *caput albo biguttatum*; *antennæ apice supra albæ*; *thorax guttis quatuor anticis albis, lateribus apud alas luteis*; *abdomen e guttis albis trivittatum, lateribus anticis maculisque quatuor anticis luteis*; *femora tibiæque apice alba*; *alæ limpidae, basi luteæ, marginibus nigris, anticæ apice nigrae*.

*Laemocharis Hanga*, Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1, f. 246.

*Male and female.* Deep black. Head with a white dot on each side behind. Antennæ white above towards the tips. Thorax with four white dots in front, luteous about the base of the wings. Abdomen luteous on each side at the base, with three rows of white dots; the middle row obsolete towards the base, where there are two luteous spots on each side. Femora and tibiæ with white tips. Wings limpid, luteous at the base; veins and borders black. Fore wings with black tips. Length of the body  $7\frac{1}{2}$  lines; of the wings 18 lines.

a. Spirito Santo, Brazil. From Mr. Stevens' collection.

#### LAGARIA ACUMINATA.

Mas.? *Atra, lata*; *caput albo varium*; *thorax maculis duabus anticis vittisque quatuor cyaneis*; *abdomen cyaneo alboque maculatum?*; *coxae anticæ subtus albæ*; *alæ limpidae, basi nigro-cyaneæ, marginibus nigris*.

*Male?* Deep black, broad. Head white above and on each side beneath. Antennæ rather long, slightly pectinated, serrated at the base and towards the tips. Thorax with a white spot on each side in front, and with four blue stripes. Abdomen (mutilated) with blue and white spots? Fore coxae white beneath. Wings limpid, black, and marked with blue at the base, and with black veins and borders, which are dilated on the hind side of the hind wings. Length of the body 8? lines; of the wings 17 lines.

This species differs somewhat in structure from the two preceding; the fore wings are more acuminate at the tips, and more triangular. It approaches *Eunomia* in structure.

Brazil. In Mr. Saunders' collection.

*Page 165.*

### Genus LAEMOCHARIS.

Laemocharis, p., Boisd.; Herr.-Schæff.  
Erruca, p. 165.

#### LAEMOCHARIS DEYROLII.

- Laemocharis Deyrolii, Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov.  
Sér. 1, f. 247, 251, a.  
Laemocharis Norma? Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov.  
Sér. 1, f. 251, b.

#### LAEMOCHARIS AECYRA.

- Laemocharis Aecyra, Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov.  
Sér. 1, f. 250.  
Glaucopis sortita, p. 184.

#### LAEMOCHARIS PERTYI.

*Atra; caput albo biguttatum; abdomen guttis quatuor basalibus luteis vittisque duabus lateralibus interruptis albis; alæ limpidæ, nigro tenuissime marginatæ.*

Laemocharis Pertyi, Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1, f. 249.

Georgia.

#### LAEMOCHARIS CONTRACTA.

Mas. *Atra; caput cyaneo varium; antennæ ramis fulvis; abdomen basim versus contractum, maculis anterioribus et posterioribus cyaneis; tibiæ subtus tarsique obscure fulva; coxæ antice subtus cyaneæ; alæ luridae, antice apice nigræ.*

Male. Deep black. Head blue above, and with a blue spot in front. Antennæ with tawny branches. Abdomen with blue spots on each side towards the base and towards the tip; basal half contracted. Tibiæ beneath and tarsi dull tawny; fore coxæ blue

beneath. Wings lurid hyaline, much narrower than those of *L. Deyrollii*. Fore wings with black tips; costa, veins and interior border partly luteous. Length of the body 6 lines; of the wings 14 lines.

Valley of the Amazon. In Mr. Saunders' collection.

*Page 166.*

Genus ILIPA.

*G. varipes*, p. 175; *G. picta*, p. 176, and *G. postica*, p. 178, may be added to this genus.

*Page 167.*

ILIPA TENGYRA.

- b.* Parà. From Mr. Stevens' collection.
- c.* Parà. From Mr. Bates' collection.

ILIPA TENTHREDOIDES.

Mas. *Lutea*; *caput nigrum, cyaneo varium; thorax fascia antica cyanea nigro marginata strigaque transversa inter alas nigra; abdomen fasciis interruptis cyaneis, apice supra nigro; pedes ferruginei, tibiis luteis; alæ limpidæ, nigro late marginatae, basim versus luteæ, anticæ fascia apud areolæ discalis apicem nigra.*

*Male.* Luteous. Head blue and black above. Palpi above and antennæ black. Thorax with a short blue black-bordered band in front, and with a transverse black mark between the wings, where there is a tuft of black hairs on each side. Abdomen above at the tip black, with interrupted blue bands. Legs ferruginous; tibiæ luteous. Wings limpid, with rather broad black borders and tips, luteous towards the base, and with luteous veins. Fore wings black at the base, and with a black band across the tip of the discal areolet. Length of the body  $3\frac{1}{2}$  lines; of the wings 10 lines.

Valley of the Amazon. In Mr. Saunders' collection.

## ILIPA SCITA.

Mas. *Lutea*; *antennæ nigrae*; *thorax nigro quadri-vittatus*; *scutellum cyaneo nigroque varium*; *abdominis segmenta cyaneo fasciata*; *tibiae tarsique postica nigro strigata*; *alæ luteo limpidæ*, *apicibus marginibusque nigris*, *anticæ striga transversa discali nigra*.

Allied to *Isanthrene*, and especially to *T. Odyneroïdes*. *Male*.—Luteous. Antennæ black. Prothorax with black borders. Thorax with four incomplete black stripes. Scutellum partly blue and black. Abdomen with a broad blue band on the hind border of each segment. Legs slender, pale luteous; hind tibiæ and hind tarsi streaked above with black. Wings luteous-hyaline; tips black; border partly black; veins mostly luteous; end of the discal areolet clouded with black, and forming an almost right angle. Length of the body 5 lines; of the wings 14 lines.

Valley of the Amazon. In Mr. Saunders' collection.

*Page 168.*

## Genus COSMOSOMA.

Laemocharis, p., *Boisd.*; *Herr.-Schæff.*

*G. subflamma*, p. 159, and *G. chrysia*, p. 162, may be added to this genus.

## COSMOSOMA OMPHALE.

*f, g.* Jamaica. From Mr. Gosse's collection.

## COSMOSOMA TEUTHRAS.

*f.* Santarem. From Mr. Bates' collection.

*Page 169.*

## COSMOSOMA TYRRHENE.

*j—m.* St. Domingo. From Mr. Tweedie's collection.

*n.* Santarem. From Mr. Bates' collection.

*Page 170.*

**COSMOSOMA TELEPHUS.**

Laemocharis Telephus, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1, f. 242.*

**COSMOSOMA PANOPES.**

Laemocharis Panopes, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1, f. 243.*

*Glaukopis subflamma*, p. 159.

**COSMOSOMA ADMOTUM.**

*Ochraceum ; caput supra cyaneum ; antennæ nigræ, apices versus supra albæ ; abdomen nigrum, e guttis cyaneis bivittatum ; alæ limpidæ, apicibus marginibusque nigris ; anticæ striga discali nigra.*

Laemocharis admota, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1, f. 241.*

*C. Telephus, var.?*

Bahia.

**COSMOSOMA BURA.**

Laemocharis Bura, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1, f. 239.*

*Glaukopis discifera*, p. 178.

**COSMOSOMA ANNEXUM.**

*Mas. Nigrum ; vertex thoracisque margo anticus cyanei ; abdomen vittis duabus macularibus cyaneis ; alæ limpidæ, apicibus marginibusque nigris, his ex parte ochraceis, anticæ striga discali nigra, plaga postica ochracea.*

Laemocharis annexa, *Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1, f. 257.*

Rio Janeiro.

## COSMOSOMA CONFINE.

*Nigrum; thorax ochraceus, nigro vittatus; abdomen vittis duabus interruptis cyaneis; alæ limpidæ, apicibus marginibusque latis nigris, anticæ basi ochraceæ, fascia postice dilatata nigra.*

*Laemocharis confinis, Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1, f. 255.*

Rio Janeiro.

## COSMOSOMA CROCATUM.

*Nigrum; thorax maculis duabus lateralibus luteis; abdomen strigis duabus basalibus albis maculisque quatuor mediis lateralibus luteis; alæ limpidæ, apicibus marginibusque nigris, anticæ striga discali tenuissima nigra.*

*Laemocharis crocata, Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1, f. 248.*

Rio Janeiro.

## COSMOSOMA MARGINATUM.

Fœm. *Rufum; caput nigrum, antice cyaneum; antennæ nigræ, apices versus albæ; thoracis discus niger; abdomen nigrum, vittis duabus rufis maculisque dorsalibus cyaneis; pedes nigri, femoribus tibiisque ex parte rufis; alæ limpidæ, apicibus marginibusque nigris, anticæ macula discali nigra.*

Female. Red. Head black, blue in front. Proboscis, palpi and antennæ black, the latter white above towards the tips. Disk of the thorax black. Abdomen black, with two red stripes, and with a middle row of blue spots. Legs black; coxæ and femora partly red. Wings limpid, black for one-fourth of the length from the tips, and with broad black borders; veins black. Fore wings with a black spot at the tip of the discal areolet. Length of the body 5 lines; of the wings 11 lines.

Valley of the Amazon. In Mr. Saunders' collection.

Page 174.

## Genus AGEROCHA.

Agerocha, Geyer, Zeitr. Samml. Exot. Schmett.  
Marissa, p. 174.

Page 180.

**CHROSTOSOMA EVADNES.**

*Var.* Luteous. Head with a black band between the eyes, white in front. Wings limpid, with narrow black borders; veins black. Fore wings black for one-fourth of the length from the tips; a black mark at the tip of the discal areolet.

*b.* Parà. From Mr. Bates' collection.

**Genus EURATA.**

*Eurata*, *Boisd.*; *Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1.*

*G. Teda*, p. 177, *G. dorsalis*, p. 177, and *G. ornatula*, p. 163, may be added to this genus.

**EURATA PICTA.**

*Eurata picta*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1*, f. 52.

*Eurota pictula*, p. 180.

**EURATA SERICARIA.**

*Glaukopis sericaria*, *Perty, Anim. Artic. Bras.*

*Eurata sericaria*, *Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1*, f. 229.

**EURATA SELVA.**

*Atra*; *thorax fasciis duabus una antica alteraque postica coccineis flavo marginatis*; *abdomen flavo-coccineum, plaga antica striga postica fasciisque nigris*; *alæ limpidæ, apicibus marginibusque lati nigris, anticæ fascia lata nigra.*

*Eurata Selva*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1*, f. 227.

Monte Video.

**EURATA HELENA.**

*Nigra*; *thorax fascia antica lata flava*; *abdomen flavum, maculis transversis nigris*; *alæ basi flavæ, anticæ limpidæ fasciis duabus apicibusque nigris, posticæ nigræ, fascia incompleta basi que limpidis.*

**Eurata Helena**, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1*, f. 230.

Brazil.

### EURATA DORSALIS.

*Glaucopis dorsalis*, p. 177.

a. Santarem. From Mr. Bates' collection.

### EURATA SELECTA.

Fœm. *Cyaneo-nigra*; *antennæ supra apices versus albæ*; *thorax luteo marginatus*; *abdomen coccineum, vitta dorsali cyaneo-nigra, maculis connexis trigonis fascia basali guttisque ventralibus lateralibus albis*; *alæ limpidæ, marginibus apicibusque et antifarum fasciis duabus cyaneo-nigris*.

*Laemocharis selecta*, *Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1*, f. 256.

a. Brazil. From Mr. Stevens' collection.

### EURATA TRANSIENS.

Fœm. *Nigra*; *antennæ subpectinatæ*; *thoracis abdominalisque latera lutea*; *alæ nigre, angustæ, basi luteæ, discis basim versus limpidis, anticæ fascia exteriore limpida postice dilatata*.

*Female.* Black. Antennæ minutely pectinated. Sides of the thorax and of the abdomen luteous. Wings black, narrow; veins partly luteous; disks almost limpid towards the base, which is luteous. Fore wings with an exterior limpid band, which is dilated hindward. Length of the body  $3\frac{1}{2}$  lines; of the wings 10 lines.

Brazil. In Mr. Saunders' collection.

### EURATA TRANSACTA.

Fœm. *Fusco-nigra, subtus ferrugineo-fusca, lateribus luteis*; *abdomen apice cyaneum*; *alæ fuscae, anticæ fascia, posticæ striga, limpidis*.

*Female.* Much like *E. transiens* in structure, but the third joint of the palpi is more slender and acuminate. Brownish black, ferruginous-brown beneath. Sides of the head, of the thorax and of the abdomen luteous. Abdomen blue above at the tip. Wings

brown, opaque. Fore wings at two-thirds of the length with an irregular limpid band, which does not extend to the borders. Hind wings with a limpid discal stripe. Length of the body  $3\frac{1}{2}$  lines; of the wings 9 lines. It is allied to some of the species with wholly opaque wings, perhaps also to *Syntomis* (which chiefly represents the preceding American forms), and is one of the numerous genera into which this family may still be divided.

*China.* In Mr. Saunders' collection.

*Page 182.*

**HYDA XANTHORHINA.**

*Eurata xanthorhina*, *Boisd. Herr.-Schäff. Lép. Exot. Sp. Nov. Sér. 1*, f. 226.

*Glaukopis basilutea*, p. 182.

*b:* Santarem. From Mr. Bates' collection.

*Page 187.*

**Genus EUNOMIA.**

*G. stipata*, p. 184, *G. leucaspis*, p. 185, and the species comprised in the groups *Aethria*, p. 188, and *Dinia*, p. 189, may be added provisionally to this genus. It much resembles *Laemocharis* and *Lagaria* in the structure of its wings and in some other characters.

*Page 189.*

**EUNOMIA HÆMORRHOIDALIS.**

The band on the fore wing is occasionally complete, and in a variety of this species the black border is much narrower than usual, and the notch in the black part at the tips of the hind wings extends almost to the fore border. The male has no red band at the base of the abdomen, the palpi are not white beneath, the black borders of the wings are rather narrower than in the female, and are hardly widened at the tips of the hind wings. The antennæ are rather more tufted above than in the female.

**EUNOMIA AUGE.**

*h.* Mexico. From Mr. Argent's collection.

*i.* Rio Janeiro. Presented by Capt. Stanley. From Mr. Macgillivray's collection.

- j.* Brazil. From Mr. Stevens' collection.  
*k.* Venezuela. From M. Becker's collection.  
*l-n.* Honduras. From Mr. Miller's collection.

### EUNOMIA SORDIDA.

Mas. *Nigra*; *antennæ supra apices versus albæ*; *abdomen apice coccineum*; *alæ angustæ, subcinereo hyalinæ, apicibus marginibusque latis nigris, anticæ macula discali nigra*.

*Male.* Dull black. Antennæ moderately pectinated, white above near the tips. Abdomen with a crimson tuft at the tip. Wings narrow, limpid, with a very slight grayish tinge, and with black tips and broad black borders. Fore wings with a black spot at the tip of the discal areolet. Length of the body  $4\frac{1}{2}$  lines; of the wings 10 lines.

- a.* Santarem. From Mr. Bates' collection.

### EUNOMIA VACILLANS.

Mas. *Atra*; *caput supra cyaneum*; *thorax margine antico vittisque duabus cyaneis*; *abdomen e maculis cyaneis trivittatum, apice coccineum, subtus basi album*; *coxæ anticæ tarsique posterioræ subtus alba*; *alæ limpidæ, marginibus apicibusque nigris, anticæ striga discali*.

This species and *E. sordida* may be distinguished from all the other *Eunomiae* by their narrow wings. *Male.*—Deep black. Head blue above. Thorax blue in front, and with two blue stripes. Abdomen with three rows of pale blue spots; tip crimson; under side white at the base. Fore coxæ and hind tarsi white beneath. Wings limpid, narrow, with black tips, borders and veins. Fore wings with the usual black streak at the tip of the discal areolet. Length of the body 6 lines; of the wings 12 lines.

- Valley of the Amazon. In Mr. Saunders' collection.

### EUNOMIA ABDOMINALIS.

Mas. *Nigra, subtus lutea*; *caput antice luteo fasciatum*; *thorax maculis sex anticis vittisque tribus luteis*; *abdomen vitta basali lutea maculari, lateribus mediis coccineis, apice atro fasciculato*; *pedes lutei, tibiis tarsisque posterioribus nigro vittatis*; *alæ limpidæ nigro submarginatae, anticæ vix luridæ, posterioræ apud marginem interiorem nigricantes*.

This species is especially allied to *Laemocharis* and to *Lagarea*.  
*Male*.—Black, luteous beneath. Head luteous about the eyes, and with a luteous band in front. Palpi luteous beneath. Antennæ moderately pectinated, not tufted above. Thorax with six luteous spots in front, and with three luteous stripes. Abdomen with a luteous partly macular stripe, which extends to about half the length; middle part crimson on each side; tip deep black and thickly tufted. Legs luteous; posterior tibiæ and tarsi striped above with black. Wings limpid, rather broad, with black veins and very narrow black borders. Fore wings with a very slight lurid tinge towards the tips; veinlets at the tip of the discal areolet forming a nearly right angle. Hind wings blackish along the interior border. Length of the body 9 lines; of the wings 18 lines.

Valley of the Amazon. In Mr. Saunders' collection.

#### EUNOMIA SEPARATA.

*Mas. Nigra; caput testaceo varium, subtus roseum; thorax guttis duabus vittisque duabus luteis; abdomen vittis duabus subinterruptis discoque ventrali luteis, apice nigro fasciculatum; pedes cyaneo-nigri, coxis tarsisque subtus testaceis; alæ limpidæ apicibus marginibusque angustis nigris, antice latiusculæ, striga discali minima.*

An aberrant species of *Eunomia*. *Male*.—Black. Head pale testaceous in front and about the eyes, rosy red beneath. Antennæ not tufted. Thorax with a luteous dot on each side in front, and with two luteous diverging stripes. Abdomen with a luteous slightly interrupted stripe along each side; disk beneath luteous, paler towards the base; a tuft of black hairs at the tip. Legs bluish black; coxæ and tarsi testaceous beneath. Wings limpid, with black tips and veins and narrow black borders. Fore wings rather broad; tip of the discal areolet hardly clouded. Hind wings whitish along the costa, and with a luteous fringe along the exterior border. Length of the body 5 lines; of the wings 11 lines.

Brazil. In Mr. Saunders' collection.

Page 195.

#### Genus PSEUDOSPHEX.

*P. Zethus* and *P. Polistes* will form two distinct genera; *P. Zethus* may be considered as the type of *PseudospheX*; and the generic name *Myrmecopsis* may be restored to *P. Polistes*, *P. tarsalis* and *P. semihyalina*.

## PSEUDOSPHEX CONSOBRINA.

Mas. *Flava*; *vertex nigro fasciatus*; *palpi nigro guttati*; *antennæ apice supra albo*; *thorax fasciis duabus anticis vittisque quinque nigris*; *abdomen testaceum, basi flavum ferrugineo bimaculatum, apice ferrugineum*; *pedes testacei*; *alæ limpidæ*.

*Male.* Yellow. Head with a slender black band on the vertex. Palpi with a black dot at each base and another near each tip. Antennæ black, white above towards the tips. Thorax with two black bands in front, and with five black stripes. Abdomen testaceous in the middle, ferruginous towards the tip, and with two ferruginous triangular spots at the base. Legs testaceous. Wings limpid, with black veins. Length of the body  $4\frac{1}{2}$  lines; of the wings 10 lines.

This species may be distinguished from *P. Zethus* by having no red spot between the eyes; by the abdomen without bands; and by the limpid wings, whose tips are not black.

Valley of the Amazon. In Mr. Saunders' collection.

## PSEUDOSPHEX COGNATA.

Mas. *Flava*; *vertex niger*; *antennæ fulvæ*; *thorax fascia antica vittisque quinque nigris*; *abdomen supra luteum, segmentorum marginibus posticis albidis nigro fasciatis*; *pedes testacei*; *alæ subluridæ, anticæ apice nigrae*.

*Male.* Yellow. Vertex black. Antennæ tawny. Thorax with a black band in front, and with five black stripes, the middle one broad and irregular. Abdomen luteous above, with a whitish tinge, and a black band on the hind border of each segment. Legs testaceous. Wings with a slight lurid tinge; tips of the fore wings and veins black. Length of the body  $4\frac{1}{2}$  lines; of the wings 11 lines.

The characteristics of this species are its tawny antennæ, its want of the abdominal dorsal stripe which distinguishes *P. Zethus*, the less black at the tips of the fore wings, the greater space between the third and fourth inferior veins, and the more acutely angular tip of the discal areolet.

Valley of the Amazon. In Mr. Saunders' collection.

**MYRMECOPSIS ICHNEUMONEA.**

Mas? *Cyaneo-nigra, gracilis; abdomen fusiforme; alæ sub-cinereæ, angustæ, anticæ apud costam fuscescentes.*

Nov. Gen. *ichneumonea*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1, f. 225.*

Much more slender than *M. tarsalis*.

Brazil.

**MYRMECOPSIS OPACA.**

Fœm. *Nigro-cyanea; caput bifasciculatum; abdomen subpetiolatum, oblanceolatum; pedes ferrugineo tomentosi; alæ longæ, angustæ, lanceolatæ, viridi purpureoque variaæ.*

*Female.* Blackish blue. Proboscis, palpi and antennæ black. Head with a thick tuft of hairs on each side beneath, as in *M. semi-hyalina*. Abdomen oblanceolate, subpetiolated, nearly twice the length of the thorax. Legs with ferruginous stripes. Wings long, narrow, lanceolate, dark blue, mingled with green and purple. Length of the body 8—9 lines; of the wings 18—20 lines.

Parà, Valley of the Amazon. In Mr. Saunders' collection.

*Page 198.*

**HEREA RUFICEPS.**

*d. Santarem.* From Mr. Bates' collection.

*Page 206.*

**POMPOSTOLA HYPARCHUS.**

*d. Ashanti.* From the Wesleyan Missionary Society's collection.

*Page 208.*

**Genus TRICHELA.**

*Trichela, Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1. Enope, p. 208.*

## TRICHELA TOLUMNENSIS.

*Trichela Tolumnensis*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1*,  
pl. 13, f. 5, 3.

Santa Fé de Bogotà.

## Genus EUPYRA.

*Eupyra*, *Bosid. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1*.  
*Chrysocale*, p. 208.

*Page* 209.

## 1. EUPYRA IGNITA.

*Eupyra ignita*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1*,  
pl. 13, f. 55.

Venezuela.

*Page* 210.

## 2. EUPYRA PLEBEIA.

*Eupyra plebeia*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1*, pl. 13,  
f. 56.

*Euchromia opulenta*, p. 210.

Caraccas.

## 3. EUPYRA REGALIS.

*Aureo-viridis*; *thorax cupreus*, *albo apud alas anticas biguttatus*;  
*alæ marginे strigaque discali nigris*, *anticæ guttis quatuor*,  
*posticæ duabus discalibus limpidis*.

*Eupyra regalis*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1*,  
pl. 13, f. 57.

Quito.

## 4. EUPYRA IMPERIALIS.

*Cyanea*; *thorax guttis duabus anticis albis*; *alæ anticæ aurato-virides* *plaga marginaque nigris*, *macula magna discali limpida*;  
*posticæ nigræ macula parva limpida*, *basi cyaneæ*.

*Eupyra imperialis*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.*  
1, pl. 13, f. 54.

Venezuela.

*Page* 211.

**EMPYREUMA LICHAS.**

*c—e.* St. Domingo. From Mr. Tweedie's collection.

**EMPYREUMA PUGIONE.**

*c—e.* Jamaica. From Mr. Gosse's collection.

*f. ——?* From Capt. Parry's collection.

*Page* 212.

**1. BELEMNIA ERYX.**

West Indies.

*g.* Tapayos. From Mr. Bates' collection.

Var. Fœm. *Cuprea; thoracis maculæ anticæ posticæque abdominisque maculæ laterales cyaneæ; abdomen subius coccineum; pedes cyaneo vittati; alæ anticæ nigrae, basi aureo-virides, macula transversa exteriore testaceo-hyalina; posticæ splendide cyaneæ, marginibus latis nigris.*

*Female.* Cupreous. Head above partly black. Proboscis, palpi and antennæ black. Thorax with blue marks in front and behind. Abdomen with lateral blue spots, which decrease in size from the base to the tip; under side crimson. Legs striped with blue. Fore wings black, gilded green towards the base, with a testaceous-hyaline transverse spot beyond the middle. Hind wings brilliant blue, with broad black borders. Length of the body 9 lines; of the wings 20 lines.

Valley of the Amazon. In Mr. Saunders' collection.

*Page 213.*

## Genus CHARIDEA.

Charidea, *Dalm.*; *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1.*  
Automolis, p. 213.

*Page 215.*

## CHARIDEA FULGIDA.

Charidea fulgida, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1,*  
f. 235.

Euchromia fastuosa, p. 215.

*Page 216.*

## CHARIDEA JUCUNDA.

f. *Spirito Santo, Brazil. From Mr. Stevens' collection.*

## CHARIDEA SPLENDIDA.

*Cyanea, aureo-viridi varia; alæ nigræ; anticæ basi cyaneæ, fascia obliqua media maculaque exteriore rufis; postica triente basali cyanea, macula postica rufa.*

Charidea splendida, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1, f. 232.*

Venezuela.

## CHARIDEA FULGENS.

*Aureo-viridis; abdomen cyaneum, aureo-viridi fasciatum; alæ anticæ nigræ, basi aureo-virides, maculis duabus rufis, una basali, altera exteriore; posticæ cyaneæ, rufo marginatae.*

Charidea fulgens, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér. 1, f. 234.*  
Venezuela.

## CHARIDEA MICANS.

*Aureo-viridis; abdomen cyaneum, aureo-viridi fasciatum; alæ anticæ nigræ, basi aureo-virides, vitta discali interrupta subarcuata lutea; posticæ cyaneæ, rufo marginatae.*

*Charidea micans*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1*,  
f. 233.

*C. fulgens, var.?*

Venezuela.

a. New Grenada.

*Page 217.*

**HISTIOCA BELLATRIX.**

f. New Grenada. From Mr. Stevens' collection.

*Var.* Thorax without pale spots in front. Abdomen with no pale band. Fore wings with but with one red basal streak. Hind wings with no red spot at the base; the exterior band narrow.

g. Villa Nova. From Mr. Bates' collection.

**HISTIOCA APICALIS.**

*Charidea apicalis*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1*,  
f. 236.

*Euchromia albiplaga*, p. 218.

*Page 219.*

**PHALANNA POLYMENA.**

m. Celebes. From Madame Ida Pfeiffer's collection.

*Page 222.*

**HIRA MADAGASCIENSIS.**

e. ——?

**HIRA FOLLETII.**

*Nigra, cyaneo varia; thorax maculis duabus magnis lateralibus  
ochraceis; abdomen basi luteum, fasciis duabus anticis poste-  
rioribusque tribus cyaneis, una media rufa; alæ anticæ disco  
basali fasciaque exteriore pallide flavis; posticæ maculis dua-  
bus magnis subtrigonis pallide flavis.*

Black. Head blue above. Thorax mostly blue, with a large orange spot on each side. Abdomen luteous at the base, with two succeeding blue bands; these are followed by a red band, and the

latter by three blue bands. Fore wings with a blue dot beyond the middle, pale yellow in the disk for more than one-third of the length from the base, and with a short exterior pale yellow band. Hind wings with two large nearly triangular pale yellow spots, one at the base, the other beyond the middle. Length of the body 8—9 lines; of the wings 23—26 lines.

This species chiefly differs from *H. Iporchius* by the abdomen, without a white band, and by the paler colour on the wings.

*a—c.* Port Natal. From M. Gueinzius' collection.

*d—f.* Port Natal. From Dr. Krauss' collection.

*g.* Port Natal. From M. Becker's collection.

*h.* Cape. From M. Dregé's collection.

#### Page 224.

##### HIPPOLA MEONES.

Charidea Meonioides, *Herr.-Schäff. Lép. Exot. Sp. Nov. Sér. 1, f. 237.*

#### Page 226.

##### HIPPOLA IRUS.

*d.* Celebes. From Madame Ida Pfeiffer's collection.

#### Page 229.

##### HISTIOCA CEPHEUS.

Euchromia Cepheus, p. 229.

This species should follow *H. bellatrix*.

Var. *Abdomen fasciis nullis pallidis; alæ anticæ pallide fusco non vittatæ, fascia exteriore sordida; posticæ macula basali nulla, fascia exteriore latissima.*

Var. Abdomen without pale bands. Fore wings without the pale brown streaks, the marks towards the base quite obsolete above, and the exterior band dingy and attenuated hindward. Hind wings without the red spot at the base, and with the red band very broad.

Valley of the Amazon. In Mr. Saunders' collection.

## ENDERA MELANTHUS.

- a. Guatemala. From M. Deby's collection.
- b. Venezuela. From M. Becker's collection.
- c. Honduras. From Mr. Dyson's collection.

*Var.* Abdomen with white bands.

- d. Nicaragua. From M. De Latre's collection.

Page 234.

## TIPULODES? APICALIS.

Fœm. *Cyaneo-fusca; antennæ nigræ, subserratæ, apice albæ; abdomen alas posticas dimidio superans; alæ sat angustæ, anticae fascia lata abbreviata semihyalina pallide flava.*

*Female.* Dark brown, tinged with blue. Antennæ black, minutely serrated, rather more than half the length of the body ; tips white. Abdomen extending for full half its length beyond the hind wings. Hind tibiæ with four rather short spurs. Wings rather narrow. Fore wings with a broad very pale yellow semihyaline band, which does not extend to the borders. Length of the body 6 lines ; of the wings 16 lines.

- a. ——? From the Zoological Society's collection.

## TIPULODES? THORACICA.

*Aureo-viridis; thorax rufu-fulvus; tarsi subtus ferruginei; alæ nigræ, cyaneo-viridi purpureoque variæ, posticæ basim versus sublimpidæ.*

Gilded green. Proboscis tawny. Palpi and antennæ black. Thorax and pectus reddish tawny. Tarsi ferruginous beneath. Wings black, with blue, green or purple reflections. Hind wings almost limpid towards the base, except along the costa. Length of the body 5 lines ; of the wings 14 lines.

- a. ——? Presented by E. Doubleday, Esq.
- b. Africa? From Mr. Milne's collection.

## TIPULODES? INCERTA.

Fœm. *Pallide lutea; caput, abdomen et pedes fuscescens; antennæ nigræ, subpectinatæ; alæ fuscæ, longæ, angustæ, basi luteæ.*

*Female.* Pale luteous. Head, abdomen and legs brownish. Antennæ black, minutely pectinated. Wings brown, long and narrow. Fore wings pale luteous at the base. Length of the body 4 lines; of the wings 12 lines.

a. ——? From Mr. Milne's collection.

## CALONOTA PHLEGMON.

Laemocharis nexa, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1, f. 254.*

d. Santarem. From Mr. Bates' collection.

e. Villa Nova. From Mr. Bates' collection.

## CALONOTA HELYMUS.

Laemocharis sericea, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1, f. 253.*

a. South America. Presented by C. Darwin, Esq.

## CALONOTA PERSPICUA.

Fœm. *Nigra; caput, thorax et coxae albo maculata; abdomen aureo-viride, fasciis duabus lateralibus flavescentibus; alæ disco basali fasciaque abbreviata exteriore limpidis.*

*Female.* Black. Head with a white spot in front, and with two white dots behind. Thorax with two dorsal and with four lateral white dots, one at the base of each wing. Abdomen slightly gilded dark green, with a broad pale yellowish stripe along each side above and beneath. Coxæ with white spots. Wings with the disk towards the base, and with an exterior abbreviated band, limpid, intersected by the black veins. Length of the body 8 lines; of the wings 20 lines.

Parà. In Mr. Saunders' collection.

## CALONOTA INTERRUPTA.

Mas. *Viridi-nigra*; *thorax albo aut viridi varius*; *abdomen fasciis interruptis aureo-viridibus, subtus e maculis albis bivittatum*; *pedes picei*; *alæ nigræ, angustæ, anticae maculis quatuor elongatis limpidis*; *posticæ disco basali maculaque exteriore limpidis*.

*Male.* Black, with a metallic green tinge. Thorax with white or green marginal dots in front, and with two dorsal streaks of the same hue. Abdomen with a white dot at the base, and with interrupted gilded green bands; under side with two lateral rows of white spots, which decrease in size hindward. Legs piceous. Wings black, narrow. Fore wings with four elongated limpid spots, the hind one of the first pair nearer the base of the wing than the fore one, which, like the exterior pair is intersected by the black veins. Hind wings with the disk limpid towards the base, and with an exterior intersected limpid spot. Length of the body  $7\frac{1}{2}$  lines; of the wings 18 lines.

Mexico. In Mr. Saunders' collection.

## CALONOTA? NIVEIFASCIA.

Fœm. *Atra*; *antennæ subpectinatae*; *abdomen cyaneo-nigrum, fascia basali nivea, subtus albo bimaculatum*; *coxæ albo guttatae*; *alæ anticae fasciis tribus, posticæ duabus limpidis*.

Apparently allied to the genus *Syntomis*.

*Female.* Deep black. Antennæ slightly pectinated. Abdomen bluish black, with a snow-white band at the base above, and with two transverse lateral white spots beyond the middle beneath. Coxæ with white dots. Wings bluish black. Fore wings with a white dot on each side at the base, and with three abbreviated limpid bands; second band interrupted; third intersected by the black veins. Hind wings with two white bands, which correspond to the first and second of the fore wings. Length of the body 5 lines; of the wings 15 lines.

a. ——? From the collection of the Zoological Society.

*Page* 238.

**Genus PAMPA.**

This genus may be subdivided or formed into two groups, one represented by *P. cryptoleuca*, *mystica* and *flavifascia*; the other by *P. imperialis*, *P. acuminata* and *P. fusiformis*.

*Page* 241.

**PAMPA IMPERIALIS.**

*b.* Tapayos, Brazil. From Mr. Bates' collection.

**PAMPA ACUMINATA.**

Fœm. *Fusca*; *antennæ nigræ*, *basi luteæ*, *vix pectinatæ*; *abdominis latera apicem versus pectusque lutea*; *alæ mediocriter latæ*, *ciliis pallidis*, *anticæ acuminatæ*.

*Female.* Brown. Palpi and antennæ black, the latter luteous at the base, hardly pectinated. Proboscis tawny. Pectus luteous. Abdomen luteous on each side towards the tip. Fore coxæ luteous beneath. Wings moderately broad; ciliæ pale. Fore wings acuminate. Length of the body 5 lines; of the wings 14 lines.

Brazil. In Mr. Saunders' collection.

**PAMPA FUSIFORMIS.**

Fœm. *Viridi-fusca*, *fusiformis*; *caput coccineo biguttatum*; *thorax guttis duabus coccineis tribusque albis*; *abdomen subtus e maculis albis bivittatum*; *alæ angustæ*, *anticæ subacuminatæ*, *posticæ limpidæ marginibus latiusculis nigricantibus*.

*Female.* Dark brown, fusiform, slightly tinged with green. Head with two crimson dots behind. Thorax with a crimson dot on each side in front, and two white dorsal dots; a white dot behind the scutellum. Abdomen beneath with two white macular lateral bands. Fore coxæ white beneath. Hind tibiæ with four rather long spurs. Wings narrow. Fore wings slightly acuminate. Hind wings limpid, with rather broad blackish borders. Length of the body 6 lines; of the wings 14 lines.

Valley of the Amazon. In Mr. Saunders' collection.

## PAMPA POSTICA.

Mas. *Nigricans*; *antennæ medio subincrastatae*; *pedes sat validi*; *tibiæ posticæ calcaribus quatuor longiusculis*; *alæ perangustæ*, *anticæ macula postica subapicali sublimpida*, *posticæ subcinereæ semihyalinae*.

*Male*. Blackish. Antennæ somewhat thickest along the middle part. Legs rather stout; hind tibiæ with four rather long spurs. Wings very narrow. Fore wings with a nearly limpid spot on the exterior border near the tips. Hind wings grayish, semi-hyaline, not extending beyond the base of the abdomen. Length of the body  $4\frac{1}{2}$  lines; of the wings 11 lines.

a. Santarem. From Mr. Bates' collection.

## PAMPA FLAVIFASCIA.

*Nigra*; *alæ anticæ fascia exteriore pallidissime flava*, *posticæ cinereæ*.

*Amycles?* *flavifascia*, *Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1*, f. 231.

*Pampa aliena*, p. 241.

Rio Janeiro.

## Genus URODUS.

*Urodus*, *Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1*.

## URODUS MONURA.

*Nigra*; *alæ posticæ sublimpidæ*, *anticis vix breviores*.

*Urodus monura*, *Moriz. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1*, f. 219.

Venezuela.

## URODUS XYLOPHILA.

*Nigra*; *abdominis latera fasciculata*; *alæ posticæ sublimpidæ*, *anticis multo breviores*.

*Urodus xylophila*, *Moriz. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1*, f. 220.

Venezuela.

## Page 244.

## ACLYTIA HEBER.

- A. flavigutta*, p. 246, is a variety of this species.  
*b. Santarem.* From Mr. Bates' collection.

Var. *Alæ anticæ gutta subcostali testacea.*

Var. *Alæ anticæ fascia obliqua lutea.*

Var. *Female.* Brown. Antennæ black. Abdomen brilliant blue towards the tip. Fore wings with a testaceous dot near the costa at two-thirds of the length. Hind wings a little paler than the fore wings, grayish in front.

Valley of the Amazon. In Mr. Saunders' collection.

Var. *Female.* Black. Head partly luteous. Thorax with a luteous mark on each side in front. Abdomen dark blue for half the length from the tip. Coxæ luteous beneath. Fore wings with a slightly oblique luteous band beyond the middle. Hind wings limpid, with opaline lustre, and with very broad black borders.

*a. Santarem.* From Mr. Bates' collection.

Var. Luteous band of the fore wings reduced to a small round spot near the costa. Abdomen white beneath.

Brazil. In Mr. Saunders' collection.

## Page 247.

## ANTICHLORIS ERIPHIA.

- f. Santarem.* From Mr. Bates' collection.

Var. *Male.* Gilded green. Head crimson behind. Proboscis and antennæ black. Palpi black, white beneath. Thorax crimson on each side in front. Pectus with white spots on each side. Abdomen above black, with three rows of triangular gilded green spots; under side with two lateral interrupted white stripes, which extend from the base to the middle. Fore coxæ white beneath. Wings dark brown. Hind wings whitish in front.

*Var.* Bluish green. Head white in front. Abdomen above mostly gilded green, not spotted; disk beneath white for half the length from the base.

Mexico and West Indies. In Mr. Saunders' collection.

*Page 248.*

**MACROCNEME MAJA.**

*q.* Spirito Santo, Brazil. From Mr. Stevens' collection.

*Page 249.*

**MACROCNEME CUPREIPENNIS.**

*Fœm.* *Aureo-viridis*; *proboscis*, *palpi*, *antennæ* *pedesque nigra*; *alæ cupreae*.

*Female.* Gilded green. Proboscis, palpi, antennæ and legs black; hind legs plumed as in *M. Maja*. Wings cupreous, which colour overspreads the whole surface, not being confined to part of it as is the metallic hue of *M. Maja*. Length of the body 6 lines; of the wings 18 lines.

*a.* —? From Mr. Children's collection.

*Page 252.*

**HORAMIA PRETUS.**

*Var. β.* Blackish. Head mostly luteous. Palpi luteous. Antennæ black, with luteous tips. Prothorax with three whitish marks, the middle one double. Thorax with four luteous stripes, the middle pair very short; a white dot at the base of each fore wing. Pectus with white dots. Abdomen luteous, with a blue band on each segment, with a short white band at the base, and with a transverse white spot on each side near the base. Legs luteous; anterior femora black; hind femora and hind tibiæ with black tips, the latter black at the base. Wings ferruginous, very narrow; hind wings tawny towards the base.

*Var. γ.* Head mostly yellow. Thorax with yellow marks, and with four dorsal spots instead of two dorsal stripes. Abdomen yellow instead of luteous, and with four transverse white spots.

*Var. δ.* Thorax luteous, with three black bands, and with a black stripe on each side.

*d, e.* St. Domingo. From Mr. Twedie's collection.

*f, g.* Venezuela. From Mr. Dyson's collection.

## HORAMIA TARSALIS.

Fœm. *Aeneo-viridis*; caput subitus luteum; vertex luteo fasciatus; thorax luteo maculatus; abdomen e guttis luteis bivittatum; tarsi postici apice lutei.

*Female.* Dull green, with a slight æneous tinge. Head luteous beneath, and with a transverse luteous spot on the vertex. Thorax with three luteous dots in front, and one at the base of each fore wing. Pectus with luteous dots. Abdomen with two lateral rows of luteous dots above and beneath. Legs long and slender; hind tarsi and tips of hind tibiæ ciliated, the former with pale luteous tips. Wings long and narrow. Length of the body 5 lines; of the wings 16 lines.

a. ——? From Mr. Stevens' collection.

Page 253.

## Genus AMYCLES.

Amycles, p. 253.

## AMYCLES ANTHRACINA.

Mexico.

*E. pectinata* and *E. instructa* do not properly belong to this genus.

Page 256.

## PIONIA TERMINALIS.

Mas. Lutea; palpi apice nigri, caput superantes; antennæ nigrae, mediocriter pectinate; abdomen alas posticas dimidio superans; alae anticæ fascia apicibusque nigris; posticæ apud marginem exteriorem nigricantes.

*Male.* Luteous. Proboscis testaceous. Palpi with black tips, extending some distance beyond the head. Antennæ black, moderately pectinated. Abdomen extending for near half its length beyond the abdomen. Legs mostly black; hind tibiæ with four moderately long spurs. Fore wings with a black band, and with black tips. Hind wings blackish along the exterior border. Length of the body 4 lines; of the wings 11 lines.

a. Brazil.

## Page 257.

## PHAUDA FORTUNII.

Nov. Gen. Fortunii, *Herr.-Schäff. Lép. Exot. Sp. Nov. Sér. 1, f. 223.*

P. triadum, p. 257.

b. Shanghai. From Mr. Fortune's collection.

## Page 258.

## DIPÆNÆ LATERALIS.

Fœm. *Cyaneo purpureoque nigra; palpi oblique ascendentes; antennæ supra ciliatæ; abdominis discus coccineus; alæ angustæ, anticæ apices versus subcupreæ, posticæ apud costam subcinereæ semihyalinae.*

*Female.* Black, tinged with blue and purple. Palpi obliquely ascending, rather slender. Antennæ with a short thick fringe above. Abdomen with a crimson dorsal disk. Wings narrow. Fore wings with a slightly cupreous fringe towards the tips. Hind wings slightly grayish and semihyaline in front. Length of the body  $4\frac{1}{2}$  lines; of the wings 12 lines.

Parà. In Mr. Saunders' collection.

## Genus AUTOMOLIS.

*Automolis, Hübn.*

Type, *A. Sphingidea*.

This genus may be divided into three groups, the first including *A. Sphingidea, angulosa, saturata* and *basalis*, the second with *A. chrysomelas*, and the third with *A. Capys, Thetis*, and *leucomelas*.

## AUTOMOLIS ANGULOSA.

Fœm. *Nigro-fusca; thorax luteo bifasciatus; abdomen disco subtus fascia que basali luteis; alæ anticæ fasciis duabus obliquis luteis apud costam approximantibus, posticæ luteæ marginibus latis fuscis.*

*Female.* Blackish brown. Thorax with a broad luteous band in front, and another along the hind border. Abdomen with a luteous band at the base; disk beneath luteous. Fore wings with two luteous bands, which are oblique in contrary directions, one near the base, the other near the tip. Hind wings paler luteous,

with broad brown borders. Length of the body 8 lines; of the wings 18 lines.

Brazil? In Mr. Saunders' collection.

#### AUTOMOLIS SATURATA.

Fœm. *Pallide fusca; caput luteum, cyaneo varium; palpi subtus lutei; thorax luteo bivittatus; abdomen basi luteum maculis lateralibus nigris, apice atrum e maculis cyaneis trivittatum; pedes lutei, fusco strigati; alæ testaceo venosæ, antice vitta discali strigaque subapicali luteis, posticæ luteæ margine exteriore fusco.*

*Female.* Pale brown. Head luteous, blue in front, and with a blue dot on the vertex. Palpi luteous beneath. Thorax with two broad luteous stripes. Pectus mostly luteous. Abdomen luteous, with black dots on each side for nearly half the length from the base; apical half deep black, with three rows of blue spots. Legs luteous, slightly streaked with brown. Wings with testaceous veins. Fore wings with a luteous discal stripe, which extends to full two-thirds of the length, and approaches an apical subcostal luteous streak. Hind wings luteous, brown along the exterior borders. Length of the body 7 lines; of the wings 16 lines.

Parà. In Mr. Saunders' collection.

#### AUTOMOLIS BASALIS.

Fœm. *Pallide fusca; caput cyaneo varium; palpi apice cyanei; thorax rufo varius; abdomen e maculis cyaneis trivittatum, triente basali rufa; alæ antice rufo guttatae aut vittatae.*

*Female.* Very pale brown. Head with a blue band in front, and with a blue spot at the base of each antenna. Palpi stout, ascending to the vertex; third small joint elongate-conical, with a blue tip. Antennæ dark brown, minutely pectinated. Thorax with an angular red mark in front, with a red stripe on each side, and with a red spot on the scutellum, which is partly blue. Abdomen with three rows of blue dots, extending for more than half its length beyond the hind wings; basal third part red. Hind tibiæ with four long spurs. Wings rather narrow. Fore wings with two red dots beyond half the length, one costal, the other subcostal; a red dot by the interior border near the base. Length of the body 16 lines; of the wings 18—20 lines.

*Var. β.* Fore wings with a slender undulating discal red stripe.

Valley of the Amazon. In Mr. Saunders' collection.

*Page 262.*

**AUTOMOLIS INORNATA.**

Fœm. *Fusca; caput et thorax rufo guttata; abdomen apicem versus cyanescens.*

*Female.* Brown. Head with a red dot on each side behind. Antennæ black, serrated. Thorax with a red lateral dot in front of each fore wing. Abdomen bluish towards the tip. Wings unvaried, like the thorax in colour. Length of the body 5 lines ; of the wings 16 lines.

a. West Coast of America. Presented by Capt. Kellett and Lieut. Wood.

**AUTOMOLIS CHRYSOMELAS.**

Fœm. *Nigro-fusca; caput cyaneo varium, maculis duabus ochraceis; thorax ochraceus, vitta dorsali fusca; abdomen e guttis cyaneis trivittatum vittis subtus duabus macularibus albis; alæ anticæ ochraceæ, margine fasciaque perobliqua fuscis; posticæ fuscae, apud costam ochraceæ.*

*Female.* Blackish brown. Head partly blue, with an orange spot on each side behind. Thorax orange, with a slender brown dorsal stripe. Abdomen with three rows of blue dots ; under side with two rows of white spots. Disks of the fore wings orange, which hue is truncated obliquely at the tips, and intersected beyond the middle by a very oblique brown band. Hind wings orange in front. Length of the body 6 lines ; of the wings 18 lines.

Brazil. In Mr. Saunders' collection.

**AUTOMOLIS LEUCOMELA.**

Mas. *Atra; abdomen alas posticas longissime superans maculis lateralibus albidis; alæ longæ, angustæ, anticæ apices versus niveæ.*

Allied to *A. Capys*. *Male.*—Deep black. Palpi stout, vertical, slightly curved, ascending a little higher than the head ; third joint small. Antennæ slightly pectinated. Abdomen extending for three-fourths of its length beyond the hind wings, with two lateral

rows of white spots above and two beneath. Legs stout; hind tibiæ with four rather long spurs. Wings long and narrow. Fore wings snow-white towards the tips, almost straight along the costa, rounded at the tips, extremely oblique along the exterior border; veins blue on the under side. Length of the body 9 lines; of the wings 20 lines.

Parà. In Mr. Saunders' collection.

#### AUTOMOLIS SYPILUS.

*Automolis Syphilus, Hübn. Verz. Schmett. 170, 1757.*

#### AUTOMOLIS DOCIS.

*Automolis Docis, (Hipocrita Sphingiformis) Hübn. Samml. Exot. Schmett. 32, 269, f. 537, 538.*

Allied to *A. Syphilus*.

Cayenne.

#### AUTOMOLIS RUTILUS.

*Ferruginea; caput luteum; thorax flavo quinque vittatus; abdomen nigrum vittis duabus lateralibus abbreviatis fulvis; alæ anticæ lineis posticis albis fasciis duabus nigris unaque flava; posticæ flavæ, nigro marginatæ.*

*Sphinx adscita Rutilus, Cram. Pap. Exot. iv. 183, pl. 382, f. B.*

*Caryatis Rutila, Hübn. Verz. Schmett. (Phalænæ Veræ Hipocritæ Sphingiformes), 171, 1761.*

Allied to *A. opposita*.

Surinam.

#### AUTOMOLIS? ARONTES.

*Pelochyta Arontes, Hübn. Verz. Schmett. (Phalænæ Veræ Hipocritæ Sphingiformes), 172, 1771.*

#### AUTOMOLIS? CORAS.

*Ferruginea; alæ anticæ strigis transversis, exterioribusque glaucescentibus, striga oblonga vitrea; posticæ vitreæ, antice cervinæ, angulo interiore dilatato fusco.*

*Sphinx adscita Coras*, *Cram. Pap. Exot.* iv. 46, pl. 312, f. A.  
*Acharia Coras*, *Hübn. Verz. Schmett.* 124, 1340.

Surinam.

#### AUTOMOLIS REDUCTA.

Fœm. *Testaceo-albida*; *palpi apice fusti*; *antennæ nigræ subsetosæ*, *corpo paullo breviores*; *abdomen pallide luteum*; *tibiæ et tarsorum articuli apice fuscescentia*; *alæ anticæ vittis duabus pallide purpureis*.

*Female.* Whitish, with a slight testaceous tinge. Proboscis testaceous. Palpi with brown tips. Antennæ black, slender, minutely setose, about three-fourths of the length of the body. Abdomen pale luteous; tips of the tibiæ and of the joints of the tarsi brownish. Fore wings with a pale purplish stripe extending along the costa for more than half the length from the base, and another from the interior border to the tip near the exterior border. Length of the body 6 lines; of the wings 14 lines.

Valley of the Amazon. In Mr. Saunders' collection.

#### Page 269.

#### EUCREA SYLVIUS.

*Var. ζ.* Brown. Head testaceous about the eyes. Proboscis tawny. Palpi whitish, with brown tips. Thorax with brown stripes. Pectus whitish. Abdomen luteous along each side and at the tip; under side whitish, with brown spots along each side and a brown tip. Fore wings whitish, with many elongated brown spots. Hind wings whitish-hyaline, with brown borders.

In Mr. Saunders' collection.

#### Page 271.

#### EUCREA RHODOPHILA.

Fœm. *Nigricans*; *caput rufo biguttatum*; *thorax ferrugineo vittatus*; *abdomen coccineum, basi vittisque duabus fuscis*; *alæ ferrugineo venosæ, fasciis duabus abbreviatis albido-hyalinis*; *posticæ albido limpidæ, marginibus latis nigro-fuscis*.

Nearly allied to *E. Rosina*. *Female.*—Blackish brown. Head with a reddish dot on each side behind the antennæ. Palpi and antennæ black, the latter hardly pectinated. Thorax with ferruginous stripes. Abdomen crimson, brown at the base above, and with two brown lateral stripes, which form a subapical band beneath. Fore wings ferruginous along the veins, with two short

irregular discal whitish hyaline bands. Hind wings whitish limpid, with broad blackish brown borders. Length of the body 5 lines; of the wings 14 lines.

Valley of the Amazon. In Mr. Saunders' collection.

### EUCREA LATIFASCIA.

Fœm. *Obscure fusca ; abdomen fasciis quatuor coccineis ; 1a late interrupta ; alæ anticae albido varia, venis pallide fuscis, posticæ apud discum limpidae.*

*Female.* Dark brown. Head behind with luteous hairs. Proboscis tawny. Palpi and antennæ black. Abdomen with four crimson bands beyond the middle, the first widely interrupted. Coxæ partly reddish. Fore wings with pale brown veins, and with some irregular dingy whitish marks. Disks of the hind wings mostly limpid. Length of the body 6 lines; of the wings 16 lines.

Parà. In Mr. Saunders' collection.

### EUCREA MITIGATA.

Fœm. *Albida ; thorax fusco interrupte vittatus ; abdomen rufum maculis lateralibus apiceque fuscis ; alæ anticae e maculis fuscis fasciatæ, posticæ fuscae, apud discum albidae.*

Var.  $\beta$ . *Pallidissime fusca ; thorax maculis vittisque fuscis albido marginatis ; abdomen rufum, apice albido fascia sub-apicali fusca, subtus testaceum maculis lateralibus fuscis ; alæ anticae maculis fuscis albido marginatis, dimidio apicali albidae ; posticæ fuscae.*

*Female.* Whitish. Head with a brown spot on the vertex; hind border luteous. Proboscis tawny. Antennæ black, minutely pectinated. Thorax with interrupted brown stripes. Abdomen red above, luteous beneath; a row of brown spots along each side; tip dark brown. Fore wings with several bands of brown spots, some of which beyond the middle are larger than the others and confluent; under side brown, with a few white spots. Hind wings brown, partly whitish in the disk. Length of the body 8 lines; of the wings 18 lines.

Brazil. In Mr. Saunders' collection.

Var.  $\beta$ . *Female.* Very pale brown. Head whitish about the eyes, with a diamond-shaped spot on the vertex. Proboscis tawny.

Palpi partly black above. Antennæ dark brown, minutely pectinated. Thorax with whitish-bordered brown marks, which consist of four spots in front, two stripes on each side, and a spot on the scutellum. Abdomen red, paler in the middle than towards each side; a brown subapical band; tip whitish; under side testaceous, with a row of brown spots along each side. Legs whitish, streaked with brown. Fore wings whitish for more than half the length from the tips, with many brown spots, which towards the base have whitish borders; some beyond the middle are larger than the others, and are almost confluent. Hind wings brown. Length of the body 6 lines; of the wings 14 lines.

Vera Cruz. In Mr. Saunders' collection.

#### EUCEREA ALBICEPS.

Mas. *Obscure fusca; caput supra album; abdomen fasciis posticis luteis, 1a et 2a interruptis; alæ mediocriter latæ, anticæ cinereo subfasciatæ, posticæ albido hyalinæ fusco late marginatæ.*

*Male.* Dark brown. Head white above. Proboscis piceous. Antennæ black, hardly pectinated. Abdomen with luteous bands along more than half the length from the tip; first and second bands interrupted. Fore coxæ luteous beneath. Wings moderately broad. Fore wings with indistinct gray bands. Hind wings whitish hyaline, with broad brown borders. Length of the body 8 lines; of the wings 20 lines.

Brazil. In Mr. Saunders' collection.

#### EUCEREA DISCOLOR.

Fœm. *Fusca, gracilis; caput supra cyaneum; abdomen basi subitus album; alæ anticæ albido varie, posticæ albæ marginibus lituraque antica fuscis.*

*Female.* Brown, rather slender. Head blue, brown behind and beneath. Palpi and antennæ black, the latter hardly pectinated. Abdomen pale brown, darker towards the tip, white towards the base beneath. Wings narrow. Fore wings slightly convex in front, with several irregular whitish marks. Hind wings white, with brown borders, and with a brown mark in front. Length of the body 2 lines; of the wings 7 lines.

Brazil. In Mr. Saunders' collection.

## EUCREA DRYAS.

*Nigra ; abdomen luteum, guttis lateralibus apiceque nigris ; alæ anticæ obscure fuscæ, posticæ cyaneæ, fusco latissime marginatae.*

Phalæna Dryas, *Cram. Pap. Exot.* i. 110, pl. 70, f. C.

West Indies.

## EUCREA SETOSA.

*Fusca ; thorax macula magna scutellari trigona albida ; abdomen maculis lateralibus flavis ; alæ anticæ maculis plurimis nigris testaceo marginatis. Mas.—Alæ posticæ albæ, margine apicali cinereo. Fœm.—Alæ posticæ cinereæ, basi albæ.*

Phalæna-Bombyx setosa, *Anon. Ins. Surinam.* i. 25, pl. 9.

Surinam.

The larva of this species feeds on a *Convolvulus*, and, like the moth, resembles the *Acronyctæ*, and connects the *Noctuites* with the *Zygænidæ*.

## EUCREA SEDONIA.

*Fusca ; abdomen cinerascens ; alæ anticæ fascia lutea albo marginata, macula oblonga transversa glauca, margine exteriore cinerascente ; posticæ cinerascentes, fascia lata canescente, basi fuscæ.*

Phalæna Sedonia, *Cram. Pap. Exot.* iv. 184, pl. 382, f. F.

Surinam.

Page 273.

## Genus SONTIA.

Corpus sat crassum. Antennæ longæ, corpore paullo breviores. Abdomen alas posticas paullo superans. Pedes validi, longiusculi. Alæ mediocriter latæ ; anticæ apud costam subrectæ, apice subangulatæ, margine exteriore perobliquo.

### 1. SONTIA NEUROPTERA.

*Fuscescens ; caput et thorax testaceo marginata ; antennæ corpore vix breviores ; abdomen luteum, disco nigro, vitta dorsali postica lutea ; alæ vix vestitæ, marginibus obscurioribus, venis nigricantibus.*

Phalæna-Bombyx neuroptera, Anon. *Ins. Surinam*, i. 83, pl. 38.  
Surinam.

### 2. SONTIA CITRINA.

*Citrina ; antennæ corpore vix breviores ; alæ anticæ fasciis linearibus venisque obscurioribus, nigro vix notatæ ; posticæ albidae, venis citrinis.*

Phalæna-Bombyx citrina, Anon. *Ins. Surin.* 113, pl. 53.

Closely allied to the *Limacodidæ*, and also to the genus *Eucerea*. The larva feeds on the leaves of *Inga vera*.

Surinam.

### 3. SONTIA SESIA.

*Citrina ; antennæ corpore vix breviores, maris suspectinatae ; thorax fusco bivittatus ; alæ anticæ fasciis obliquis fuscis, posticæ albæ.*

Phalæna-Bombyx Sesia, Anon. *Ins. Surin.* 115, pl. 54.

Like the preceding species in structure. The larva feeds on the leaves of *Inga vera*.

Surinam.

### 4. SONTIA RHOMBOIDEA.

Mas. *Citrina ; antennæ corpore vix breviores ; alæ anticæ strigis transversis fulvis, vitta arcuata media lituraque subquadrata discali nigricantibus.*

Phalæna-Bombyx rhomboidea, Anon. *Ins. Surin.* 129, pl. 61.

This may be associated in a new genus with the two preceding species, or may form a new genus of itself, for it seems much less allied than the others to the *Limacodidæ*. The larva feeds on *Paspalum indicum*.

Surinam.

## 5. SONTIA BACTRIS.

*Testacea; abdomen cinereum, fascia basali alba; alæ anticæ fasciis angulosis obliquis fuscis, posticæ cinereæ.*

Phalæna (Noctua) Bactris, Anon. *Ins. Surin.* 223, pl. 100.

Much like the preceding species in structure. The larva feeds on the leaves of *Bactris acanthocarpa*.

Surinam.

## 6. SONTIA CRUCIFERA.

*Fusca; abdomen luteum, fasciis nigris; alæ anticæ fasciis tribus obliquis obscurioribus, 3a marginali; posticæ gutta discali margineque obscurioribus.*

Phalæna-Bombyx crucifera, Anon. *Ins. Surin.* 129, pl. 103.

Surinam.

## 7. SONTIA OBSCURA.

*Nigro-fusca; abdomen luteum, fasciis nigris; alæ anticæ fasciis quatuor subobliquis cinereis.*

Phalæna-Bombyx obscura, Anon. *Ins. Surin.* 241, pl. 109.

Surinam.

Page 278.

## Genus ERNASSA.

Corpus robustum. Antennæ subsetosæ, apice subcrassiores, corpore paullo breviores. Abdomen alas posticas paullo superans. Pedes validi. Alæ latiusculæ; anticæ apud costam subconvexæ, apice rotundatæ, margine exteriore sat obliquo.

## 1. ERNASSA JUSTINA.

Fœm. *Ferrugineo-rufa; alæ anticæ linea obliqua nigra guttaque exteriore alba.*

Phalæna-Bombyx Justina, Cram. Pap. Exot. iv. 186, pl. 383, f. E. Automolis Justina, Huibn. Verz. Schmett. 171, 1760.

Surinam.

*Page 279.*

The family *Lithosiidæ* is somewhat heterogeneous with respect to the genera here included in it, and requires subdivision.

*Page 280.*

The genus *Illiberis* may be united with *Northia*, p. 141, 1600. *Pintia* belongs to the *Chalcosiidæ*, and perhaps to *Eterusia*, in which genus it has most resemblance to *E. ferrea*. See pp. 411—441.

*Page 281.*

## Fam. CTENUCHIDÆ.

This family is closely allied to *Procris*.

*Page 285.*

## Genus CONSOPRIUM.

*Consoprium*, *Blanch.*, see p. 709.

## CONSOPRIUM ? DIVISUM.

Fœm. *Album*; *proboscis, antennæ, palpi apice pedesque nigra*; *abdomen purpureo-nigrum*; *alæ anticae pallide cervinæ, albo venosæ, posticae nigrae ciliis albis*.

*Female.* White. Proboscis and antennæ black. Palpi porrect, extending some distance beyond the head, white with black tips. Antennæ hardly pectinated. Abdomen purplish black, extending for one-third of its length beyond the hind wings. Legs black; hind tibiæ with four minute spurs. Fore wings pale fawn-colour, with white veins, darker beneath. Hind wings black, with a white fringe. Length of the body 5 lines; of the wings 14 lines.

Brazil. In Mr. Saunders' collection.

*Page 288.*

## 4. LYCOMORPHA DIMIDIATA.

*Nigra*; *alæ anticae basi flavæ*.

*Pyromorpha dimidiata*, *Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. 1, f. 222.*

G eorgia.

## Fam. MELAMERIDÆ.

In this family may be included *Lycomorpha*, *Josia*, *Dioptis* and *Chrysauge*, with the group or genera which they contain; also *Lyces*, *Scaptesyle*, *Corydalla*, *Isionda*, *Avela*, *Pitthea*, *Torina*, *Scotura*? and *Brycea*.

It has much affinity to the *Zygænidæ*, and also to the *Pyralites*.

The wings are very generally more or less black, occasionally with a metallic hue, very frequently adorned with bright colours, or partly limpid.

Page 293.

## JOSIA MITIS.

Fœm. *Fusca*, *vittis duabus lateralibus luteis*; *caput subitus luteum*; *proboscis, palpi et antennæ nigra*; *abdomen alas posticas perpaullo superans*; *pedes subcanescentes, femoribus luteo strigatis*; *alæ anticæ vitta perangusta discali, posticæ vitta lata discali margineque interiore luteis*.

Female. Brown. Proboscis, palpi and antennæ black. Head luteous beneath. Thorax and abdomen with a luteous stripe along each side. Abdomen extending very little beyond the hind wings. Legs with a slight hoary tinge; femora with luteous streaks. Fore wings with a very slender discal luteous stripe. Hind wings black, with a broad luteous discal stripe; interior border luteous. Length of the body 5 lines; of the wings 16 lines.

Rio Grande. In Mr. Saunders' collection.

## JOSIA? SEPARATA.

Fœm. *Atra*; *antennæ simplices, extrorsum vix crassiores*; *pectus luteo varium*; *abdomen luteum, vittis duabus ventralibus una dorsali apiceque nigris*; *pedes validi*; *tibiæ posticæ calcaribus duobus apicalibus sat longis*; *alæ longæ*; *anticæ maculis duabus discalibus luteis, una subtrigona, altera transversa elongata exteriore*; *posticæ luteæ marginibus latis nigris*.

Female. Deep black. Antennæ simple, very slightly increasing in breadth till near the tips. Pectus mostly luteous. Abdomen

luteous, black at the tip, and with a black dorsal stripe, and with one on each side beneath. Legs stout; femora with luteous hairs; hind tibiæ with two spurs of moderate length. Wings long, moderately broad. Fore wings very slightly convex in front, hardly angular at the tips, very oblique along the exterior border, with a nearly triangular discal luteous spot before the middle, and with an exterior discal transverse elongated luteous spot, which, like the other one, is much larger on the under side. Hind wings luteous, with broad black borders. Length of the body 8 lines; of the wings 20 lines.

*a.* New Grenada. From Mr. Stevens' collection.

#### JOSIA? CONTINUA.

Fœm. *Atra*; *palpi subtus lutei*; *thorax antice luteo fasciatus*; *pectus luteo varium*; *abdomen luteum, vitta dorsali nigra*; *alæ anticæ vitta discali fasciaque obliqua exteriore luteis*; *posticæ vitta lata discali lutea*.

*Female.* Deep black, in structure like *J. separata*. Palpi luteous beneath. Thorax with a luteous band in front. Pectus mostly luteous. Abdomen luteous, with a black dorsal stripe. Femora with luteous hairs. Fore wings with a luteous discal streak, which extends from the base to less than half the length, and is much dilated beneath, and with an exterior oblique pale luteous band. Hind wings with a broad discal luteous stripe. Length of the body 7 lines; of the wings 22 lines.

*a.* St. Domingo. From Mr. Tweedie's collection.

#### JOSIA TRAJECTA.

Mas. *Obscure fusca*; *caput antice testaceum*; *prothorax luteus*; *abdomen subtus luteum, apice albidum*; *coxae et femora testacea*; *alæ fascia semihyalina-flava, anticæ fascia exteriore obliqua flava*; *posticæ marginibus subtus ciliisque luteis*.

*Male.* Dark brown. Head testaceous in front. Prothorax luteous. Abdomen luteous beneath, whitish at the tip. Coxæ and femora testaceous. Wings with a yellow-semihyaline band. Fore wings with an oblique abbreviated exterior yellow-semihyaline band. Hind wings with luteous ciliae; under side luteous about the borders. Length of the body 7 lines; of the wings 16 lines.

*a. — ?*

## JOSIA ? FUSIFERA.

Mas. *Atra*; *antennæ subpectinatæ*; *alæ anticæ fusiformes*, *vitta discali longi-fusiformi lutea*; *posticæ luteæ*, *nigro marginatæ*, *apud apices oblique substruncatæ*.

*Male.* Deep black. Antennæ minutely pectinated. Fore wings fusiform, narrower than those of the two preceding species, and consequently more oblique along the exterior border; an elongated fusiform luteous stripe in the disk. Hind wings luteous, with broad black borders, convex in front, somewhat obliquely truncated towards the tips. Length of the body 6 lines; of the wings 18 lines.

a. New Grenada. From Mr. Stevens' collection.

## Page 294.

## SCEA ? PUELLA.

Fœm. *Æneo-nigra*, *schistaceo micans*; *thorax luteo bivittatus*; *abdomen apice albidum*; *alæ anticæ luteæ costa apicibusque nigris*, *vitta postica æneo-nigra*.

*Female.* Æneous-black, with slaty lustre. Antennæ slender, simple, setaceous, somewhat shorter than the body. Thorax with two luteous stripes. Abdomen slender; extending for one-third of its length beyond the hind wings; tip whitish. Legs very slender; hind tibiæ with four long spurs. Fore wings luteous, except along the costa and towards the tips; a slender æneous-black stripe near the interior border. Length of the body  $3\frac{1}{2}$  lines; of the wings 9 lines.

This species will form a new genus between the *Pyralites* and the *Melameridæ*, and it approaches much nearer than *S. auriflamma* to the *Pyralites*. It may be distinguished from the above species by its more slender antennæ and abdomen, by its longer and more slender legs, and by the much longer spurs of the hind tibiæ.

Brazil. In Mr. Saunders' collection.

## SCEA INFANS.

Fœm. *Nigra*; *alæ anticæ fascia lata obliqua abbreviata exteriore pallide flava*.

*Female.* Black. Antennæ simple, setaceous, more than half the length of the body. Abdomen extending for one-third of its

length beyond the hind wings. Hind tibiæ with four long spurs. Wings rather long, moderately broad. Fore wings nearly straight in front, rounded at the tips; rather oblique along the exterior border, with a broad oblique pale yellow band, which does not extend to the borders. Length of the body 3 lines; of the wings 8 lines.

Parà. In Mr. Saunders' collection.

*Page* 296.

Genus HIPOCRITA.

Hipocrita, p., *Hüb.*

Calosoma, *Geyer.*

HIPOCRITA MUTATA.

*Var.* Abdomen luteous towards the base beneath. Spot towards the tips of the fore wings and that on the under side of the hind wings of moderate size.

In Mr. Saunders' collection.

*Page* 300.

HIPOCRITA DISCOLORIA.

*Nigra*; abdomen cinereum; alæ anticæ vitta antica lutea, posticæ nigro-cinereæ.

Phalæna (Noctua) discoloria, *Anon. Ins. Surin.* i. 95, pl. 44.

The larva feeds on the leaves of *Passiflora Vespertilio*.

Surinam.

*Page* 305.

EPHIALTIA SIMPLEX.

Fœm. *Nigra*; alæ anticæ fascia abbreviata obliqua subapicali pallide flava, posticæ vitta lata brevi discali albo-hyalina.

*Female.* Black. Abdomen extending for about half its length beyond the hind wings. Hind tibiæ with four long spurs. Wings rather long and narrow. Fore wings with an abbreviated oblique pale yellow subapical band. Hind wings with a broad short white-hyaline discal stripe, which is slightly notched in front of the tip. Length of the body 5 lines; of the wings 13 lines.

Parà. In Mr. Saunders' collection.

## Page 308.

## ACTEA REMOTA.

Fœm. *Fusca*; *palpi testacei, arcuati*; *pectus albidum*; *abdomen luteo trivittatum, subtus albidum*; *pedes albidi*; *alæ anticæ vitta basali fasciaque exteriore obliqua testaceis, maculaque subapicali alba subhyalina*; *posticæ pallide luteæ, marginibus latis fuscis*.

*Female.* Brown. Proboscis piceous. Palpi testaceous, much curved, not ascending to the vertex. Pectus whitish. Abdomen with three luteous dorsal stripes; under side whitish. Legs whitish; hind tibiæ with four rather long spurs. Fore wings with a testaceous basal stripe in the disk, with a testaceous oblique exterior band, and with a white nearly hyaline subapical spot. Hind wings pale luteous, with broad brown borders. Length of the body 4 lines; of the wings 14 lines.

a. West Coast of America. Presented by Capt. Kellet and Lieut. Wood.

## Page 309.

## MYONIA EVIPPE.

b. Villa Nova. From Mr. Bates' collection.

## Page 310.

## EPIDESMA URSULA.

Epidesma Ursula, *Hübn. Verz. Schmett.* 176, 1822.

## Page 312.

## LEUCOPSUMIS GUTTIPALPIS.

Mas. *Nigra*; *caput luteum*; *palpi lutei, maculis apicibusque nigris*; *abdomen maculis posticis æneis trivittatum*; *alæ anticæ macula exteriore transversa oblonga albo-hyalina*; *posticæ vitta discali albo-hyalina*.

*Male.* Black. Head luteous. Proboscis tawny. Palpi luteous, each with a black spot; tips black. Abdomen extending a little beyond the hind wings, with very slight metallic lustre, and towards the tip with three rows of dull æneous spots. Hind tibiæ with four long spurs. Fore wings with a transverse oblong white-

hyaline spot beyond the middle. Hind wings with a white-hyaline discal stripe. Length of the body 6 lines; of the wings 16 lines. Brazil? In Mr. Saunders' collection.

### Genus CORYDALLA.

*Corpus sat validum. Proboscis longiuscula. Palpi porrecti, caput superantes; articulus 3us conicus, brevis. Antennæ corporis dimidio longiores. Abdomen alas posticas superans. Tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ longiusculæ, sat angustæ; anticæ apud costam vix convexæ, apice rotundatae, margine exteriore perobliquo. Mas.—Antennæ subpectinatæ. Fæm.—Antennæ vix pectinatæ.*

Body moderately stout. Proboscis elongate. Palpi porrect, straight, extending some distance beyond the head; third joint conical, not one-fourth of the length of the second. Antennæ more than half the length of the body. Abdomen extending rather beyond the hind wings. Hind tibiæ with four moderately long spurs. Wings rather long and narrow. Fore wings hardly convex in front, rounded at the tips, extremely oblique along the exterior border; first inferior vein curved, united to the second at the base; third about four times further from the fourth than from the second. *Male.*—Antennæ slightly pectinated. *Female.*—Antennæ hardly pectinated.

#### 1. CORYDALLA CRYPTOLEUCA.

*Mas et fœm. Atra, cyaneo trivittata; caput cyaneum; abdomen subitus album; alæ cyaneo strigatae, anticæ e maculis duabus oblongis obliquis albis fasciatæ, posticæ subangulosæ, macula postica cinerea.*

Deep black. Head mostly blue. Thorax and abdomen with three blue stripes. Abdomen beneath with a white disk. Coxæ white beneath. Wings with blue streaks. Fore wings beyond the middle with an oblique white band, which is composed of two oblong spots; these form a continuous line on the inner side. Hind wings with a hind grayish spot, very slightly angular beyond the middle of the exterior border. Length of the body 6—7 lines; of the wings 18 lines.

Parà. Valley of the Amazon. In Mr. Saunders' collection.

*Page 313.*

## SAGARIS STYgne.

Fœm. *Aterrima*; *caput subitus luteum*; *alæ anticæ fascia exteriore subobliqua lutea*.

c. Tapayos. From Mr. Bates' collection.

*Page 319.*

## ERBESSA SOBRIA.

c. Parà. From Mr. Stevens' collection.

*Page 324.*

## EUAGRA CŒLESTINA.

*Agyrta cœlestina*, *Hübn. Verz. Schmett.* 177, 1830.

## EUAGRÀ DISCALIS.

Mas. *Cyaneo-nigra*; *abdomen vittis duabus purpureo-cyaneis, subtus album*; *pedes subtus albi*; *alæ anticæ macula fascia que exteriore brevi obliqua albo limpidis, posticæ albo limpidæ, margine lato nigro*.

*Male.* Black. Body bluish black. Abdomen with a light purplish blue stripe along each side, extending for about half its length beyond the abdomen; under side and legs beneath white. Hind tibiæ with four rather short spurs. Fore wings with two whitish limpid spots; one small and before the middle; the other exterior, large, oblong, and obliquely transverse. Hind wings whitish limpid, with broad black borders. Length of the body 5 lines; of the wings 14 lines.

Valley of the Amazon. In Mr. Saunders' collection.

*Page 327.*

## AGYRTA DUX.

d. Venezuela. From Mr. Dyson's collection.

Page 330.

**AGYRTA SECTA.**

*Fœm.* *Nigra*; *caput antice album*; *prothorax utrinque luteus, subtus albus*; *abdomen viride, subtus album*; *pedes longi, graciles, subtus albi*; *alæ anticæ macula fasciaque exteriore obliqua abbreviata albo limpidis*; *posticæ albo limpidae, marginibus latis nigris*.

*Female.* Black. Head white in front. Antennæ slender, simple, nearly as long as the body. Prothorax luteous on each side, white beneath. Abdomen bright green, extending for one-third of its length beyond the hind wings, white and shining beneath, as are also the legs. Legs long and slender; hind tibiæ with four long spurs. Wings and their veins black, green at the base. Fore wings with two limpid spots; the first much smaller than the exterior one, which is oblong and obliquely transverse. Hind wings with a limpid discal stripe. Length of the body 5 lines; of the wings 15 lines.

Valley of the Amazon. In Mr. Saunders' collection.

This species might form a new genus, as it differs somewhat in structure from others included with it under the name *Agyrtia*, and is perhaps as nearly allied to the *Pyralites* as to the *Melamericæ*.

**AGYRTA NANA.**

*Mas.* *Nigra, subtus albida*; *abdomen alas posticas vix superans; alæ limpidae, venis apicibus marginibusque latis nigris.*

*Male.* Black, whitish beneath. Antennæ slightly pectinated, much more than half the length of the body. Abdomen hardly extending beyond the hind wings. Hind tibiæ with four moderately long spurs. Wings limpid, with black veins, black tips and broad black borders. Length of the body  $2\frac{1}{2}$  lines; of the wings 9 lines.

Valley of the Amazon. In Mr. Saunders' collection.

**Genus GNOPHÆLA.**

This genus is somewhat allied to *Trichela*, pp. 208, 1621.

*Page 332.*

**HERMINA VINOSA.**

*Epestris vinoso, Hübn. Verz. Schmett. 178, 1839.*

*Page 334.*

**LAURONA MEON.**

*Dioptis Meone, Hübn. Verz. Schmett. 174, 1793.*

*Page 336.*

**LOCHA DIAPHANA.**

*Hyelosia diaphana, Hübn. Verz. Schmett. 174, 1798.*

This species appears to connect *Dioptis* with the *Liparidae* by means of *Penora* and the following genera. See p. 821.

*Page 337.*

**DIOPTIS ? PERDICA.**

*Dioptis Perdica, Hübn. Verz. Schmett. 174, 1794.*

**Fam. PERICOPIDÆ.**

The genera *Esthema*, *Heleona*, *Hyalurga*, *Cistidia*, *Dysphania*, *Pericopis*, *Phalæ*, *Phalæsia*, *Composia* and *Eucyane*, may be included in this family. It is connected with the *Melameridæ* by means of *Esthema* and *Eucyane*, and has some affinities with the *Arctiidæ*. It is composed of large species, which often have pale dots on the head and on the thorax, and whose wings are ample and frequently more less vitreous.

*Page 338.*

**ESTHEMA BICOLORA.**

This and *E. dichroa* are one species.

*Page 340.*

**HYALURGA FENESTRA.**

*Zygæna Egeon?* *Fabr. Sp. Ins.* ii. 161, 23; *Mant. Ins.* ii. 104, 28; *Ent. Syst.* iii. 395, 30.

*Sphinx Zygæna Egeon*, *Gmel. ed. Syst. Nat.* i. 5, 2395, 130.

The genus *Gyara*, p. 915, must be transferred to this family, and is closely allied to *Hyalurga*.

*Page 341.*

**HYELOSIA TIRESIA.**

*Dysschema Tiresias*, *Hübn. Verz. Schmett.* 175, 1805.

**HYELOSIA HYPOXANTHA.**

*Dysschema Hypoxantha*, *Hübn. Zeitr.* 191, 192. *Verz. Schmett.* 175, 1807.

*Page 351.*

**PERICOPIS TURBIDA.**

*Hyelosia Aglaurā*, *Hübn. Verz. Schmett.* 174, 1799.

**PERICOPIS LARVATA.**

Fœm. *Nigro-fusca, guttis anticis albis; abdomen albido bivittatum; alæ anticæ fasciis duabus abbreviatis obliquis semihyalinis sordide testaceis, subtus basi rufo bimaculatæ; posticæ nigrae, basi flavæ, maculis nonnullis exterioribus rufis unaque flava.*

*Female.* Blackish brown. Head, palpi and fore part of the thorax with white dots. Antennæ black, minutely serrated. Abdomen with two very indistinct and diffuse pale stripes; under side with two distinct and complete whitish stripes. Fore wings with two short oblique semihyaline dingy testaceous bands, the exterior one attenuated in front; under side with two red spots at the base. Hind wings black, yellow towards the base, with one yellow and with several indistinct red exterior spots. Length of the body 11 lines; of the wings 34 lines.

Valley of the Amazon. In Mr. Saunders' collection.

## PERICOPIS DISJUNCTA.

Fœm. *Fusca; caput albo guttatum; palpi albo vittati; thorax flavo maculatus; abdomen luteum, nigro trivittatum, subtus testaceum nigro bivittatum; pedes testaceo varii; alæ anticæ basi cervinæ fasciisque duabus exterioribus obliquis flavis, 1a postice fulva; posticæ fascia ramosa margineque nigris, hoc albo-guttato.*

*Female.* Brown. Head and palpi blackish brown. Head with white dots. Palpi striped with white. Antennæ black, minutely serrated. Thorax with yellow spots in front. Abdomen luteous, with three black stripes; under side testaceous, with a black stripe on each side. Legs partly testaceous. Fore wings fawn-colour in front at the base; two oblique yellow bands, the first interrupted in the middle, changing to tawny hindward; the second short. Hind wings luteous, with a slightly rameous black band, and with a black border; the latter with white dots. Length of the body 9 lines; of the wings 32 lines.

Colombia. In Mr. Saunders' collection.

Page 361.

## COMPOSIA SYBARIS.

e, f. St. Domingo. From Mr. Tweedie's collection.

## OPHTHALMIS PUNCTIGERA.

*Lutea; alæ anticæ subpurpureæ, fascia arcuata fusco marginata, macula subapicali nigra luteo marginata.*

Phalæna Attacus punctigera, Linn. *Mus. Lud. Utr. 380; Syst. Nat. i. 812, 15. Clerck. Icon. pl. 50, f. 3.*

Phalæna Hilaria, Cram. *Pap. Exot. ii. 26, pl. 113, f. F.*

Ophthalmis punctigera, Hubn. *Verz. Schmett. 166, 1720.*

Surinam.

This species may be one of the *Geometrites*.

## Page 364.

## EUCYANE TEMPERATA.

Mas. *Cyanea*; *caput albo guttatum*; *palpi subtus albi*; *abdomen subtus vitta lata coccinea fasciisque perangustis albis*; *alæ nigræ, basi cyaneæ, anticæ fascia obliqua, posticæ macula discali rufis semihyalinis*.

*Male.* Bright blue. Head with white dots. Palpi black, white beneath. Antennæ black, very minutely pectinated. Abdomen beneath mostly black, with a broad crimson stripe, and with a slender white band on the hind border of each segment. Legs black, white beneath. Wings black, bright blue at the base; ciliæ white at the tips of the fore wings and on part of the exterior border of the hind wings; fore wings with an oblique pale red semihyaline band; hind wings with a discal spot of the same hue. Length of the body 8 lines; of the wings 22 lines.

a. Tapayos. From Mr. Bates' collection.

## Page 365.

## MILIONIA GLAUCA.

*Epidesma Pyrrho*, Hübner. Verz. Schmett. 176, 1821.

## Page 367.

## LYCES? PLAGIFERA.

*Obscure fusca, subtus albida*; *caput supra luteum*; *palpi lutei, fusco varii*; *pedes albidi*; *alæ anticæ apicibus albis maculisque duabus flavo-albis, venis ferrugineis*; *posticæ vitta lata discali flavo-alba*. Mas.—*Antennæ subpectinatae*; *abdomen alas posticas superans*. Fœm.—*Antennæ simplices*; *abdomen alas posticas vix superans*.

Dark brown, whitish beneath. Head luteous between the antennæ. Proboscis testaceous. Palpi luteous, partly brown, more ascending than those of *L. flavissima*. Legs whitish; hind tibiæ with four moderately long spurs. Fore wings with white tips, and with two yellowish white spots, one by the middle of the costa, the other near the interior angle; veins ferruginous. Hind wings with a broad yellowish white discal stripe, which does not extend to the tips. *Male.*—Antennæ minutely pectinated. Abdomen extending somewhat beyond the hind wings. *Female.*—Antennæ simple

Abdomen hardly extending beyond the hind wings. Length of the body 7 lines; of the wings 18—20 lines.—

Valley of the Amazon. In Mr. Saunders' collection.

#### LYCES ALBIVENTRIS.

*Mas.* *Nigra, subtus alba; antennæ subpectinatæ, corporis dimidio vix breviores; prothorax luteus; abdomen vittis duabus lateralibus luteis; pedes albidi; alæ flavæ, marginibus apud costam dilatatis nigris.*

*Male.* Black, white beneath. Antennæ minutely pectinated, nearly half the length of the body. Prothorax luteous. Abdomen with a luteous stripe along each side, hardly extending beyond the hind wings. Legs whitish, slender, short; hind tibiæ with four small spurs. Wings bright yellow, with broad black borders, which are dilated and angular in the middle of the costa, and are broadest at the tips of the fore wings. Length of the body  $5\frac{1}{2}$  lines; of the wings 16 lines.

Valley of the Amazon. In Mr. Saunders' collection.

#### Page 373.

#### FLAVINIA FUSIFERA.

*Fœm.* *Atra, vix cyanescens; antennæ serratae; palpi caput vix superantes; abdomen alas posticas vix superans; tibiæ posticæ calcaribus quatuor minutis; alæ pallide luteæ, longiusculæ, mediocriter latæ, nigro marginatæ.*

*Female.* Deep black, very slightly tinged with blue and purple. Antennæ serrated, not more than half the length of the body. Palpi extending very little beyond the head. Abdomen hardly extending beyond the hind wings. Hind tibiæ with four minute spurs. Wings pale luteous, rather long, moderately broad, with black borders, which are much broader in the fore wings than in the hind wings. Length of the body 7 lines; of the wings 20 lines. Sante Fé de Bogotà. In Mr. Saunders' collection,

#### Genus ISIONDA.

*Fœm.* Corpus sat robustum. Proboscis longiuscula. Palpi arcuati, incumbentes, verticem attingentes. Antennæ graciles, sub-serratae, corporis dimidio multo longiores. Abdomen elongatum,

alas posticas dimidio superans. Pedes graciles, longiusculi; tibiæ posticæ calcaribus quatuor longis. Alæ mediocriter latæ; anticæ apud costam subrectæ, apice subangulatæ, margine exteriore mediocriter obliquo.

Much resembling the *Pyralites*. *Female*.—Body moderately stout. Proboscis elongate. Palpi curved, ascending to the vertex, incumbent on the head. Antennæ slender, minutely serrated, much more than half the length of the body. Abdomen elongate, extending for half its length beyond the hind wings. Legs slender, rather long; hind tibiæ with four long spurs. Wings moderately broad. Fore wings nearly straight in front, almost angular at the tips, moderately oblique along the exterior border; second inferior vein full six times further from the third than from the first. Hind wings almost angular on the exterior border.

#### ISIONDA PYRALOIDES.

Fœm. *Atra; caput subtus luteum; palpi pedesque subtus, antennæ basi, pectus, abdominis vittæ laterales et venter alba; thoracis guttae duæ anticæ, vittæ duæ laterales abdominisque maculæ dorsales luteæ; alæ anticæ macula transversa exteriore posticæque vitta interrupta luteis.*

*Female*. Deep black. Head luteous beneath. Palpi white beneath. Antennæ white at the base. Thorax with a luteous dot in front, and with a short luteous stripe on each side. Pectus white. Abdomen with luteous dorsal spots, and with a slender white stripe along each side; under side white. Legs white beneath. Wings with white streaks beneath at the base. Fore wings with a transverse luteous spot beyond the middle. Hind wings with a luteous stripe, which is interrupted near the interior border; under side white along the interior border. Length of the body  $7\frac{1}{2}$  lines; of the wings 16 lines.

a. Tapayos. From Mr. Bates' collection.

#### Genus AVELA.

*Mas.* Corpus sat gracile. Proboscis longiuscula. Palpi ascendentes, sat longi; articulus 3us lanceolatus, 2i dimidio brevior. Antennæ mediocriter pectinatæ, corpore paullo breviores. Abdomen alas posticas dimidio superans. Pedes longiusculi; tibiæ posticæ calcaribus quatuor minutis. Alæ angustæ; anticæ vix acuminatæ, apud costam rectæ, margine exteriore perobliquo.

**Male.** Body rather slender. Proboscis elongate. Palpi ascending, rather long; third joint lanceolate, less than half the length of the second. Antennæ moderately pectinated, nearly three-fourths of the length of the body. Abdomen extending for half its length beyond the hind wings. Legs rather long; hind tibiae with four minute spurs. Wings narrow. Fore wings straight in front, hardly acuminate at the tips, extremely oblique along the exterior border; first, second and third inferior veins approximate at the base; fourth very remote.

#### AVELA DIVERSA.

Mas. *Nigricans*; caput antice, palpi subtus, thoracis latera antica, abdominisque vittæ duæ ventrales albida; alæ flavæ, anticæ basi dimidioque apicali fasciam obliquam flavam includente nigris, posticæ nigro marginatæ.

**Male.** Blackish. Head whitish in front. Palpi whitish beneath. Thorax whitish on each side in front. Abdomen with a whitish stripe along each side beneath. Wings yellow. Fore wings black at the base; apical half obliquely black, including an oblique yellow band. Hind wings with a broad blackish border, which is very narrow for a short space towards the tip of the exterior margin. Length of the body 5 lines; of the wings 16 lines.

Brazil. In Mr. Saunders' collection.

#### Page 378.

#### CHRYSUAUGE ? FLAVELATA.

*Nigra*; alæ flavæ, nigro late marginatæ, anticæ apices versus nigræ macula flava.

Phalæna flavelata, Cram. Pap. Exot. iv. 112, pl. 348, f. B.

Surinam.

#### Page 379.

#### Fam. NYCTEMERIDÆ.

This family will comprehend the genera *Devara*, *Aletis*, *Mennis*, *Phægorista*, *Stenele*, *Erchia*, *Massaga*, *Eudule* ? *Rhosus*, *Sangala*, *Nelo*, *Melanchroia*, *Nyctemera*, *Pterothysanus*, *Otroeda*, *Euschema* ? *Præsos*, *Barbicornis* ? *Psychomorpha* ? *Caralisa* and *Arina*.

Some of the genera, like a few of the *Pericopidæ* and of the *Chalcosiidæ*, have much resemblance to the *Rhopalocera*. The body

is slender and the wings ample, and they have a general resemblance to the *Geometrites*.

### Genus DEVARA.

*Mas.* Corpus gracile. Proboscis longiuscula. Palpi breves, porrecti, caput vix superantes; articulus 3us conicus, minutus. Antennæ sat late pectinatæ, corporis dimidio longiores. Pedes gracieles; tibiæ posticæ calcaribus duobus apicalibus breviusculis. Alæ latæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore perobliquo; posticæ abdomen superantes.

*Male.* Body slender. Proboscis elongate. Palpi short, porrect, hardly extending beyond the head; third joint conical, minute. Antennæ rather deeply pectinated, somewhat more than half the length of the body. Abdomen not extending so far as the hind wings. Legs slender; hind tibiæ with two rather short apical spurs. Wings broad. Fore wings straight in front, rounded at the tips, rather oblique along the exterior border; first, second and third inferior veins approximate at the base; fourth rather remote.

#### 1. DEVARA ERYCINOIDES.

*Chrysauge erycinoides*, p. 373.

### Genus CARALISA.

*Mas.* Corpus vix robustum. Proboscis longiuscula. Palpi porrecti, caput longe superantes; articulus 3us elongatus, acuminitus; 2i dimidio longior. Antennæ mediocriter pectinatæ, corporis dimidio longiores. Abdomen alas posticas non superans. Pedes gracieles; tibiæ posticæ calcaribus quatuor breviusculis. Alæ mediocriter latæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore perobliquo.

*Male.* Body hardly stout. Proboscis elongate. Palpi porrect, extending far beyond the head; third joint elongated, acuminate, much more than half the length of the second. Antennæ moderately pectinated, much more than half the length of the body. Abdomen extending as far as the hind wings. Legs slender; hind tibiæ with four rather short spurs. Wings moderately broad. Fore wings straight in front, rounded at the tips, very oblique along the exterior border; first, second and third inferior veins nearly contiguous; fourth remote.

## 1. CARALISA EDITHA.

**Mas.** *Cyanea; caput subitus, palpi basi, abdominis vitta dorsalis et venter coccinea; caput apud oculos album; alæ marginibus latis nigris ciliis albis.*

**Male.** Deep blue. Head crimson beneath, white about the eyes. Proboscis testaceous. Palpi crimson at the base. Disk of the abdomen with a short broad crimson stripe, which tapers in front; under side crimson. Wings with broad black borders; ciliæ white. Length of the body 6 lines; of the wings 18 lines.

Hayti, St. Domingo. In Mr. Saunders' collection.

*Page 380.*

## EUDULE VARIEGATA.

**e.** St. Domingo. From Mr. Tweedie's collection.

*Page 384.*

## SANGALA BEATA.

**Mas.** *Atra; caput albo varium; palpi subtus albi; abdomen e maculis albis rufisque quadriovittatum, vittis subtus duabus macularibus albis; pedes subtus albo vittati; alæ discis cyanis, subtus rufæ, antice dimidio apicali subtus nigro maculis albis, posticæ subtus margine nigro albo maculata.*

**Male.** Deep black. Head mostly white beneath and about the eyes. Palpi white beneath. Abdomen with four lateral stripes of white and red spots; under side with two stripes of larger white spots. Legs striped with white beneath. Wings with deep bright blue disks; under side red. Fore wings beneath black for half the length from the tips, with some subapical white spots. Hind wings with a black border, which is interrupted by white spots. Length of the body 5—6 lines; of the wings 16—18 lines.

Santa Fé de Bogatà. In Mr. Saunders' collection.

*Page 389.*

## MELANCHROIA PYLOTIS.

**h.** Villa Nova. From Mr. Bates' collection.

*Page 391.*

MELANCHROIA SUBVITTATA.

Mas et fœm. *Nigro-fusca; abdomen apice luteum; alæ albo subpunctatæ anticæ subferrugineæ, macula oblonga obliqua discali alba; posticæ macula discali alba basim versus attenuata, vittisque subtus duabus posterioribus albis.*

*Male and female.* Blackish brown. Proboscis testaceous. Palpi and antennæ black. Abdomen luteous at the tip. Wings with white ciliæ at the tips, slightly and very minutely flecked with white. Fore wings with a slight ferruginous tinge, and with an oblong oblique white discal spot. Hind wings with an oblong white spot, which is almost parallel to the length, and is attenuated towards the base, and especially so on the under side, where it is accompanied by two posterior white stripes. Length of the body 5—6 lines; of the wings 16—18 lines.

Brazil. In Mr. Saunders' collection.

New genus? ERNESTINA.

*Cyanescens; alæ nigræ, plagis quatuor transversis albis lineaque exteriore cyanescente.*

Phalæna Geometra Ernestina, *Cram. Pap. Exot.* iv. 155, pl. 369, f. F.

Melanchroia Ernestina, *Hübn. Verz. Schmett.* 173, 1791.

Amboina.

Genus ARINA.

*Mas.* Corpus gracile. Proboscis longiuscula. Palpi longi, arcuati, reflexi, verticem attingentes. Antennæ mediocriter pectinatae, apice serratae, corporis dimidio longiores. Abdomen alas posticæ non superans. Pedes graciles; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ latiusculæ; anticæ apud costam subrectæ, apice rotundatæ margine exteriore subobliquo.

Closely resembles the genera *Melanchroia* and *Nyctemera*, but is much more allied than them to the *Pyralites*. *Male.*—Body slender. Proboscis elongate. Palpi long, curved, ascending to the vertex. Antennæ more than half the length of the body, moderately pectinated for full three-fourths of the length from the base,

serrated from thence to the tips. Abdomen extending as far as the hind wings. Legs slender; hind tibiae with four spurs of moderate length. Wings rather broad. Fore wings nearly straight in front, much rounded at the tips, slightly oblique along the exterior border; first, second and third inferior veins approximate at the base; fourth remote.

### 1. ARINA OBTUSA.

*Mas. Nigro-fusca; caput albo varium; palpi, abdomen et pedes subtus alba; thorax luteo bivittatus; alae anticæ basi albo venosæ, macula exteriore discali albida guttaque subapicali lutea; posticæ fascia lata abbreviata alba.*

*Male.* Blackish brown. Head white in front and about the eyes. Palpi white beneath. Thorax with a dull luteous stripe along each side. Abdomen and legs white beneath. Fore wings with whitish veins towards the base, with an exterior discal whitish spot, which is most apparent beneath, and with a subapical luteous dot. Hind wings with a broad irregular white band, which does not extend to the fore border. Length of the body 4 lines; of the wings 12 lines.

Brazil. In Mr. Saunders' collection.

*Page 395.*

### NYCTEMERA APICALIS.

*l.* Port Natal. From M. Gueinzius' collection.

### NYCTEMERA LACTICINIA.

*e.* Ceram. From Madame Ida Pfeiffer's collection.

*Page 399.*

### NYCTEMERA COLITA.

*g.* Ceram. From Madame Ida Pfeiffer's collection.

*Page 400.*

### NYCTEMERA VARIANS.

*Var.* Discal spots of the hind wings obsolete.  
In the collection of the Entomological Society.

## NYCTEMERA RADIATA.

Mas. *Nigra*; *caput luteo-album, nigro bimaculatum; palpi albi, apice nigri; thorax albo vittatus; pectus album, nigro maculatum; abdomen albidum, apice luteum; pedes albo vittati; alæ anticæ nigro-fuscæ, radiis basalibus fasciaque lata exteriore obliqua interrupta albis, posticæ albæ marginibus nigro-fuscis.*

*Male.* Black. Head white, with a luteous tinge, and with a black spot on the front and another behind. Proboscis tawny. Palpi white, with black tips. Thorax with white stripes. Pectus white, with black spots. Abdomen whitish; tip luteous. Legs with white stripes. Fore wings blackish brown, with white rays extending along half the length from the base, and with a broad exterior oblique interrupted white band. Hind wings white, with blackish brown borders. Length of the body 6 lines; of the wings 18 lines.

Manilla. In Mr. Saunders' collection.

Page 401.

## NYCTEMERA ARCTATA.

Mas. *Lutea; caput nigro biguttatum, palpi nigri; antennæ sat late pectinatæ; thorax et coxæ nigro maculata; abdomen fasciis dorsalibus maculisque lateralibus nigris; pedes fusti; alæ albæ, anticæ fusco trifasciatæ, posticæ maculis submarginalibus fuscis.*

*Male.* Luteous. Head with a black dot in front and another behind. Proboscis tawny. Palpi and antennæ black, the latter rather deeply pectinated. Thorax, pectus and coxæ with black spots. Abdomen with black bands, and with four rows of black spots, two above and two beneath. Legs brown. Wings white. Fore wings with three brown bands; first band shortened hindward, connected on the costa with the second, which is slightly interrupted and accompanied by a spot in the middle; third band marginal, and including some white spots along the exterior border. Hind wings with brown submarginal spots. Length of the body 8 lines; of the wings 24 lines.

Cherra Poonjee, Hindostan. In Mr. Saunders' collection.

## NYCTEMERA SPECULARIS.

**Mas.** *Albido-testacea; palpi nigri; thorax nigro guttatus; alae albæ, anticæ fusco bifasciatæ, venis fusco marginatis, margine exteriore fusco albo bimaculato; posticæ marginibus latis fuscis albo bimaculatis.*

**Male.** Whitish testaceous. Proboscis, palpi and antennæ black. Thorax with black dots. Wings white. Fore wings brown along the veins, and with two slight brown bands, which are abbreviated hindward, wholly brown towards the exterior border, with the exception of two white submarginal spots. Hind wings with broad brown borders, each of which contains two white spots. Length of the body 6 lines; of the wings 18 lines.

**a. Ceram.** From Madame Ida Pfeiffer's collection.

**Fœm.?** *Fusca; proboscis et abdomen testacea; palpi et antennæ nigra; alæ anticæ striga basali maculaque magna exteriore oblonga transversa discalibus necnon maculis tribus parvis submarginalibus albis; posticæ albæ, fasciis latis fuscis albo triguttatis.*

**Female?** Brown. Proboscis and abdomen testaceous. Palpi and antennæ black. Fore wings with a white discal streak proceeding from the base, with an exterior large oblong transverse discal white spot, and with three small submarginal white spots. Hind wings white, with broad brown borders, which also contain three white dots. Length of the body 5 lines; of the wings 16 lines.

**b. Ceram.** From Madame Ida Pfeiffer's collection.

## NYCTEMERA FASCIATA.

**Fœm.** *Fusca; caput luteum, nigro biguttatum; palpi nigri; thorax luteo varius, albido quadriplagiatus; pectus et pedes albida, illum nigro maculatum; abdomen luteum, subtus albidum, segmentis nigro fasciatis; alæ anticæ fascia recta submaculari alba, posticæ albæ fusco marginatae.*

**Female.** Brown. Head pale luteous, with a black spot in front and another behind the antennæ. Proboscis tawny. Palpi black, pale at the base. Antennæ black. Lobes of the prothorax and scutellum with luteous borders. Thorax with four whitish stripes. Pectus and legs whitish, the former with black spots. Abdomen luteous above, whitish beneath; segments with black bands.

Fore wings with an exterior upright white band, which is almost macular, being interrupted by the brown veins. Hind wings white, with broad brown borders. Length of the body 6 lines; of the wings 18 lines.

a. Aneiteum, New Hebrides. Presented by the Admiralty. Voyage of H.M.S. Herald. Collected by Mr. Macgillivray.

#### NYCTEMERA EXTENDENS.

Mas. *Nigro-fusca ; caput subtus luteum ; thorax luteo varius, albido quadrihvittatus ; pectoris latera lutea ; abdomen albo fasciatum, apice luteum ; pedes ex parte albi ; alæ anticæ fasciis duabus latis macularibus albis, posticæ albæ marginibus latis nigro-fuscis.*

*Male.* Blackish brown. Head luteous behind and beneath. Proboscis tawny. Lobes of the prothorax and scutellum with luteous borders. Thorax with four whitish stripes. Pectus luteous on each side. Abdomen with white bands; tip luteous. Legs partly white. Fore wings with two broad abbreviated white bands, which are composed of oblong spots; first band with two spots; second with five spots, of which the fore one is lanceolate and curved, the second and the fifth are smaller than the third and the fourth, and the third is smaller than the fourth. Hind wings white, with broad blackish brown borders. Length of the body  $6\frac{1}{2}$  lines; of the wings 19 lines.

a. New Hebrides? Presented by the Admiralty. Voyage of H.M.S. Herald. Collected by Mr. Macgillivray.

#### NYCTEMERA OBTUSA.

Mas. *Obscure fusca ; caput albidum, fusco bimaculatum ; thorax albido quadrihvittatus ; pectus et pedes alba ; abdomen albo fasciatum, subtus album apice luteum ; alæ anticæ vitta postica basali fasciaque lata albis, posticæ albæ fusco marginatae.*

*Male.* Dark brown. Head whitish, with a brown spot in front and another behind the antennæ. Proboscis tawny. Palpi brown, pale at the base. Antennæ black. Lobes of the prothorax with whitish borders. Thorax with four whitish stripes. Pectus and legs white. Abdomen with white bands; under side white, luteous at the tip. Fore wings with a broad white band, which is convex on the outer side, and is united hindward to a white stripe, which proceeds from the base of the wing. Hind wings white, with broad brown borders. Length of the body 5—6 lines; of the wings 16—18 lines.

*Var. β.* Fore wings with whitish streaks between the base and the white band, which is of nearly equal breadth, and is hardly convex outwardly.

a—c. Celebes. From Madame Ida Pfeiffer's collection.

*Page 402.*

The genera *Otroeda*, *Euschema* and *Præsos*, may be distinguished as the family *Euschemidæ*.

*Page 404.*

**OTROEDA CAFRA.**

*Nyctemera Cafra*, *Hübner. Verz. Schmett.* 178, 1842.

**OTROEDA NERINA.**

*Nyctemera Nerina*, *Hübner. Verz. Schmett.* 178, 1843.

**OTROEDA ? CUNINA.**

*Alba; caput et thorax anticus rufescens; antennæ nigrae, maris late pectinatae; abdomen flavum, segmentis basi rufis; alæ marginibus macularibus fuscis, anticarum costa, maculis basilibus strigaque obliqua media fuscis.*

*Phalæna-Attacus Cunina*, *Cram. Pap. Exot.* iii. 114, pl. 257, f. G.  
Sierra Leone.

*Page 408.*

**EUSCHEMA HELENETTA.**

*Fœm. Lutea; proboscis, palpi apice antennæque nigra; alæ vitreae, apud marginem exteriorem fuscæ, fascia interrupta lutea; anticæ macula discali fusca, basi luteæ fascia interrupta fusca.*

*Euschema Helenetta*, *White, MSS.*

*Female.* Luteous. Proboscis; third joint of the palpi and antennæ black. Fore wings vitreous, brown for some space from the exterior border, near which there is an interrupted luteous band, luteous towards the base, near which there is an interrupted and irregular brown band; a large oblong brown discal spot. Hind

wings much like the fore wings along the exterior border, vitreous elsewhere. Length of the body 12 lines; of the wings 36 lines.

a. Ceram. From Madame Ida Pfeiffer's collection.

#### EUSCHEMA PLENA.

Mas. *Flava*; *caput nigro fasciatum*; *thorax nigro trifasciatus*; *alæ anticæ nigricantes, fasciis tribus interruptis vitreis*; *posticæ fasciis quinque nigricantibus*.

*Male.* Yellow. Head with a black band on the vertex. Antennæ black. Thorax with three black bands. Fore wings blackish, with three interrupted and incomplete vitreous bands; two yellow streaks at the base. Hind wings with five irregular blackish bands; first band almost basal; second short; third undulating; fourth macular; fifth marginal. Length of the body 10 lines; of the wings 30 lines.

a, b. Philippine Isles. From Mr. Cuming's collection.

#### Page 411.

#### Fam. CHALCOSIIDÆ.

*Uraga* and *Clelia* may be added to this family.

#### GYNAUTOCERA PHILOMELA.

Gynautocera Philomela, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. i. pl. 3, f. 14.*

#### Page 412.

#### HISTIA FLABELLICORNIS.

g. North India. Presented by General Hearsay.

#### Page 413.

#### HISTIA SELENE.

Gynautocera libelluloides, mas., *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. i. pl. 2, f. 11, 12.*

#### HISTIA VACILLANS.

Gynautocera libelluloides, fœm., *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. i. pl. 2, f. 13.*

*Page 414.*

**POMPELON MARGINATA.**

*Heterusia acrocyanea, De Haan, Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. i. f. 156, 157.*

*Page 415.*

**CYCLOSIA EUPLÆOIDES.**

*Epyrgis Euplœoides, Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. i. pl. 2, f. 9, 10.*

*Cyclosia Namouna, p. 415.*

*Page 416.*

**CYCLOSIA PAPILIONARIS.**

*h. Madras. Presented by Mrs. Capt. Hamilton.*

*i, j. (Pupa). Madras. Presented by Mrs. Capt. Hamilton.*

*Page 417.*

**CYCLOSIA VIRGINALIS.**

*Milleria virginalis, Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. i. f. 4.*

*Cyclosia subcyanescens, p. 417.*

**CYCLOSIA PIERIDOIDES.**

*Nigra; caput et thorax albo guttata; abdomen albidum, vitta dorsali nigra; alæ albæ, venis nigro marginatis; anticæ maculis sex atro-cyanæis, apud apices nigræ areolarum discis albis; posticæ macula una atro-cyanæa.*

*Epyrgis Pieridoides, Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. i. pl. 1, f. 5.*

*Java.*

*Page 420.*

**CHALCOSIA PECTINICORNIS.**

*Epyrgis idæoides, Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. i. pl. 1, f. 6.*

*l. North India. From Dr. Hooker's collection.*

*m. Landoor, N. W. Himalaya. Presented by General Hearsay.*

*Page 421.***CHALCOSIA PHALENARIA.**

*Heterusia pulchella*, *Kollar*, *Kaschmir, von Von Hugel*, 461, 2.  
*Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. i. f. 160*, 161.

*Page 422.***CHALCOSIA MIDAMA.**

*Mas. Epyrgis Midama*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. i. pl. 2, f. 7.*  
*Fæm. Epyrgis Hormenia*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. i. pl. 2, f. 8.*  
*Chalcosia venosa*, p. 422.

*Page 423.***CHALCOSIA CORRUSCA.**

*Milleria corrusca*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. i. pl. 1, f. 1.*  
*Chalcosia Zuleika*, p. 423.

**CHALCOSIA DISTINCTA.**

This species should be transferred to the genus *Eterusia*, and is nearly allied to *E. pulchella*.

**CHALCOSIA ZEHMA.**

*Æneo-fusca; caput coccineum; abdomen album; alæ anticæ fascia alba; posticæ albae, basi cyaneæ, margine exteriore cyaneo-nigro.*

*Milleria Zehma*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. i. pl. 1, f. 3.*

Silhet.

*Page 424.***PIDORA GLAUКОPIS.**

*Leucopsumis glaucopis*, *Hübn. Verz. Schmett.* 177, 1827.

*Page 426.***LAURIA CIRCE.**

*Milleria Circe*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. i. pl. 1*, f. 2.

*Laurion metallica*, p. 426.

*h.* North India. From Dr. Hooker's collection.

*Page 427.***LAURIA GEMINA.**

*i.* North China. From Mr. Cuming's collection.

*j.* Hong Kong. Presented by Capt. Champion.

*Page 428.***ETERUSIA ADEA.**

*j.* Ceylon. From Mr. E. L. Layard's collection.

*Page 430.***ETERUSIA SCINTILLANS.**

*Heterusia scintillans*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Ser. i. f. 154, 155.*

*Eterusia sublutea*, p. 430.

*Page 431.***ETERUSIA REMOTA.**

*b.* North China. From Mr. Fortune's collection.

**ETERUSIA FERREA.**

*b, c.* Silhet. Presented by E. Doubleday, Esq.

*d.* Silhet. From the Rev. Mr. Stainforth's collection.

*e.* Hindostan. From Archdeacon Clerk's collection.

*f.* Hindostan. From Mr. Milne's collection.

**ETERUSIA PULCHELLA.**

*f.* Landoor, N. W. Himalaya. Presented by General Hearsay.

*Dele Chalcosia pulchella*, *Kollar, &c.*

*Page 433.*

**ETERUSIA ELIZABETHA.**

b. North China. From Mr. Fortune's collection.

**ETERUSIA CIRCINATA.**

*Cyaneo-nigra; alæ anticæ fascia obliqua flava, posticæ apice luteæ nigro maculatæ.*

Heterusia circinata, Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. i. f. 156, 157.

Assam.

*Page 440.*

**Genus ISBARTA.**

*Mas.* Corpus gracile. Caput subproductum. Proboscis non conspicua. Palpi brevissimi. Antennæ subfiliformes, subpectinatæ, corpore paullo breviores. Abdomen alas posticas vix superans. Pedes gracillimi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ latæ, longiusculæ; anticæ apud costam subconvexæ, apice vix acuminatæ, margine exteriore subobliquo.

*Male.* Body slender. Proboscis not visible. Head very prominent in front. Palpi very short, not extending to the front of the head; third joint conical. Antennæ almost filiform, slightly pectinated, about three-fourths of the length of the body. Abdomen hardly extending beyond the hind wings. Legs very slender; hind tibiæ with two very minute apical spurs. Wings broad, rather long. Fore wings a little convex in front, hardly acuminate at the tips, slightly oblique along the exterior border; second inferior vein much nearer to the first than to the third; third full thrice further from the fourth than from the second.

**1. ISBARTA GLAUCA.**

*Mas.* *Glauca; caput et thorax cyanea, albo guttata; abdomen nigrum, segmentorum marginibus posticis ventreque albis, apice cyaneo; pedes cyanei, subtus albi; alæ nigro alboque maculatæ, anticæ apud marginem interiore supra albidae subtus luteæ.*

*Male.* Glaucous. Head and thorax dark blue, with white dots. Antennæ dark blue, with black branches. Abdomen black; hind borders of the segments and under side white; tip dark blue.

Legs dark blue, white beneath. Wings glaucous-green above, more blue beneath ; disk of the areolets with black and white spots, the latter hue most prevalent beneath. Hind wings along the interior border luteous beneath and more slightly whitish above. Length of the body 8 lines ; of the wings 24 lines.

a. Sumatra. From Sir Stamford Raffles' collection.

*Page 441.*

The genera *Seriphia*? and *Mevania* seem to represent the *Chalcosiidæ* in South America.

*Page 444.*

Fam. HYPSIDÆ.

Comprising the genera *Hypsa*, *Caryatis*, *Sermyla*? and *Pitane*. In the structure of the palpi it much resembles some groups of the *Noctuitæ Quadrifidæ* of Guenée.

*Page 447.*

HYPSA ANTICA.

Mas. *Lutea*; *palpi apice nigri*; *antennæ nigræ*, *sat late pectinatae*, *ramis hamatis*; *thorace anticus nigro biguttatus*; *abdomen maculis dorsalibus nigris*; *pedes albidi*; *alæ anticæ ferrugineæ*, *triente basali luteæ*, *basi nigro guttatae*.

Male. Luteous. Proboscis testaceous. Palpi with a black dot at the tip of the second joint; third joint black. Antennæ black, rather deeply pectinated; branches with hooked bristles at their tips. Thorax with a black dot on each side in front. Abdomen with black dorsal dots. Legs whitish. Fore wings ferruginous, luteous for near one-third of the surface from the base where there are some black dots; outline of the luteous part excavated, luteous and whitish in front; under side pale luteous, with broad brown borders. Hind wings dark brown, luteous in front; under side like that of the fore wings. Length of the body 9 lines; of the wings 22 lines.

Cape. In Mr. Saunders' collection.

*Page 448.*

**HYPSA MARMOREA.**

Fœm. *Lutea; caput nigrum, albo fasciatum; thorax nigro maculatus; abdomen e guttis nigris trivittatum; pedes nigri, albo strigati; alæ cyaneo-schistaceæ, albo venosæ; posticæ apud marginem interiorem albae, macula discali nigra.*

*Female.* Luteous. Head black, with white bands. Proboscis testaceous. Palpi and antennæ black, the latter simple. Thorax with several black spots. Abdomen with three rows of black dots; under side with lateral black dots. Legs black, with white streaks. Wings bluish slate-colour, with white veins. Hind wings white from the interior border to the disk; a discal black spot, in front of which there is a testaceous spot. Length of the body 12 lines; of the wings 36 lines.

a. Silhet. From Mr. Stainforth's collection.

*Page 450.*

**HYPSA SILVANDRA.**

*Var.* Luteous. Thorax with a black dot on each side in front. Abdomen with black dorsal spots. Fore wings blackish gray, luteous and with white marks at the base, and with a white basal streak, which is connected with a white lanceolate discal spot. Hind wings white, with very broad blackish gray borders.

New South Wales. In Mr. Saunders' collection.

*Page 450.*

**HYPSA ISTHMIA.**

Fœm. *Alba; palpi nigri, testaceo vittati; antennæ nigræ, subpilosæ; thorax luteo bivittatus, nigro septem maculatus; abdomen luteum, nigro quinque fasciatum, maculis subtus lateralibus nigris; alæ anticae fuscae, basi albæ nigro guttatae, strigis mediis albis, maculisque duabus exterioribus albis; posticæ albæ, fusco marginatae.*

*Female.* White. Proboscis testaceous. Palpi black, with testaceous stripes. Antennæ black, minutely pilose. Thorax with two pale luteous stripes, with two black spots in front, three in the middle and two behind. Abdomen luteous, with five black dorsal

bands; under side with lateral black dots. Fore wings brown, white with black dots at the base, with white streaks before the middle, and with two large white spots beyond the middle; fore spot smaller than the hind one. Hind wings white, with brown borders. Length of the body 9 lines; of the wings 28 lines.

Manilla. In Mr. Saunders' collection.

*Page 451.*

**HYPSA LANCEOLATA.**

Fœm. *Fusca; caput luteum; thorax anticus luteo bimaculatus; pedes albo strigati; alæ anticæ vitta lanceolata, basi interrupta; posticæ albæ, fusco late marginatæ.*

Allied to *H. intacta*. Female.—Brown. Head luteous. Proboscis testaceous; first and second joints of the palpi testaceous beneath. Antennæ black, minutely setose. Thorax with a luteous spot on each side in front. Legs with white streaks. Fore wings with a brown stripe, which is interrupted at the base, and widens thence to the middle of the wing. Hind wings white, with broad brown borders. Length of the body 8 lines; of the wings 26 lines.

Celebes or Mindanao. In Mr. Saunders' collection.

*Page 454.*

**HYPSA CARICÆ.**

m. Ceram. From Madame Ida Pfeiffer's collection.

Var.? Fœm. *Lutea; palpi gutta articuloque 3o nigris; thorax nigro biguttatus; abdomen e guttis nigris trivittatum; pedes albidi; alæ anticæ venis maculaque discali albis; posticæ fusco maculatæ.*

Female. Luteous. Palpi with a black dot at the tip of the second joint; third joint black. Thorax with a black dot on each side between the fore wings. Abdomen with three rows of black dots. Legs whitish. Fore wings white along the veins, and with a white discal spot. Hind wings with several irregular brown spots. Length of the body 10 lines; of the wings 30 lines.

In Mr. Saunders' collection.

## HYPSA SUBRETRACTA.

Mas. *Pallide lutea; palpi gutta basali apiceque nigris; antennæ mediocriter pectinatæ, apice nudæ; thorax nigro biguttatus; abdomen guttis transversis nigris, subtus e guttis nigris bivittatum; alæ anticæ pallide fuscæ, basi luteæ nigro guttatæ; posticæ luteæ.*

*Male.* Pale luteous. Palpi black towards the tips, and with a black dot on each near the base. Antennæ black, moderately pectinated for three-fourths of the length from the base. Thorax with a black dot on each side. Abdomen with black transverse dots; under side with two lateral rows of black dots. Fore wings pale brown, pale luteous, with black dots towards the base, the luteous part angular and much narrower hindward. Hind wings pale luteous. Length of the body 8 lines; of the wings 24 lines.

a. Port Natal. From M. Gueinzius' collection.

## HYPSA UNDULIFERA.

Mas. *Lutea; palpi gutta basali apiceque nigris; antennæ mediocriter pectinatæ, apice nudæ; thorax nigro triguttatus; abdomen subtus albidum e guttis nigris bivittatum; pedes albi, nigro vittati; alæ anticæ pallide fuscæ, basi luteæ nigro guttatæ; posticæ albæ, margine fusco angulum versus inferiorem attenuato undulato.*

*Male.* Luteous. Palpi black towards the tips, and with a black dot near the base. Antennæ black, moderately pectinated to beyond three-fourths of the length. Thorax with a black dot in the disk, and one on each side. Abdomen whitish beneath, with two lateral rows of black dots. Legs white, with black stripes. Fore wings pale brown pale luteous, with black dots towards the base, the hind part of the luteous hue less than half the length of the fore part. Hind wings white, with a brown border, which is attenuated, undulating and fringed with white towards the interior angle. Length of the body 8 lines; of the wings 24 lines.

a. ——? Presented by E. Doubleday, Esq.

## HYPSA ANALIS.

*Testaceo-flava; palpi nigri, subtus basi pallidi; antennæ nigræ, simplices; abdomen apice viride; alæ anticae guttis duabus basalibus nigris et quinque discalibus fusco-fulvis.*

*Female.* Testaceous-yellow. Palpi black; first and second joints pale beneath. Antennæ black, simple. Abdomen metallic green at the tip above. Fore wings with two black dots at the base, and with five brownish tawny dots in the disk. Length of the body 10 lines; of the wings 24 lines.

a. Ceram. From Madame Ida Pfeiffer's collection.

## Page 466.

## Fam. LITHOSIIDÆ.

Contains the genera *Thirmida*, *Spiris*, *Melasina*, *Lerina*, *Apistosia*, *Antona*, *Ituna*, *Balbura*, *Ardonea*, *Atolmis*, *Asura*, *Lactura*, *Cebysa*, *Hypoprepia*, *Dianasa*, *Cissura*, *Lymire*, *Percote*, *Lithosia*, *Paidia*, *Setina*, *Eustixia*, *Eusceptis*, *Eubaphe* and *Sommeria*.

## Page 470.

## PHÆOCHLÆNA QUADRICOLOR.

Fœm. *Lutea; caput albo bimaculatum; palpi apice fusi; antennæ nigræ; thorax nigro quadrivertitatus; pedes albidi; albo anticae ferrugineo-fuscæ, strigis basalibus testacea fascia que exteriore testacea apud costam lutea; posticæ luteæ, nigro marginatae.*

*Female.* Luteous. Head with two black spots behind the vertex. Proboscis piceous. Palpi with brown tips. Antennæ black. Thorax with four black stripes. Legs whitish. Fore wings ferruginous-brown, with basal testaceous streaks, the hind one broader than the others; an exterior oblique testaceous band, which is abbreviated hindward, and is luteous by the costa. Hind wings luteous, with black borders. Length of the body 6 lines; of the wings 17 lines.

Parà. In Mr. Saunders' collection.

*Page 473.***SPIRIS GRAMMICA.**

*Emydia grammica*, Koch, Raup. und Schmett. Witter. *Isis*, 1848, 460. Speyer, Ent. Zeit. Stett. xiii. 283, 2.

*Euprepia grammica*, Zeller, *Isis*, 1847, 432, 101. Döring, Ent. Zeit, Stett. ix. 304, 15.

*Page 474.***SPIRIS CIBRUM.**

*Emydia Cibrum*, Speyer, Ent. Zeit. Stett. xiii. 283, 1.

*Euprepia Cibrum*, Döring, Ent. Zeit. Stett. ix. 304, 12.

*Var.*

*d.* Turkey. Presented by W. K. Loftus, Esq.

*e, f.* Europe. From M. Becker's collection.

*g.* Europe. From Mr. Milne's collection.

*Page 475.***SPIRIS FUNEREA.**

*Euprepia funerea*, Eversm. Cat. Lep. Het. 592.

**SPIRIS NIGRILINEA.**

*Mas.* *Lutea*; *palpi apice nigri*; *antennæ nigræ*, *mediocriter pectinatæ*; *pedes nigri*, *coxis femoribusque luteis*; *alæ longæ*, *mediocriter late*, *antica linea costali nigra*.

*Male.* Luteous. Palpi porrect, rather slender, not extending beyond the head; third joint black. Antennæ black, moderately pectinated. Legs black; coxae and femora luteous; hind tibiæ with two minute apical spurs. Wings long, moderately broad. Fore wings with a black line along the costa. Length of the body 5 lines; of the wings 18 lines.

Brazil. In Mr. Saunders' collection.

**Genus PAGARA.**

*Mas.* Corpus gracile. Proboscis capitis longitudine longior. Palpi graciles, acuminati, longiusculi, oblique ascendentibus; articulus 3us elongatus. Antennæ sat late pectinatæ, corpore paullo breviores. Abdomen alas posticas paullo superans. Pedes graciles,

non pilosi; tibiæ posticæ calcaribus quatuor sat longis. Alæ sat angustæ; anticæ apud costam subconvexæ, apice subacuminatæ, margine exteriore subobliquo.

*Male.* Body slender. Proboscis somewhat longer than the breadth of the head. Palpi slender, acuminate, rather long, obliquely ascending; third joint elongated, very much shorter than the second. Antennæ rather deeply pectinated, three-fourths of the length of the body. Abdomen extending for full one-fourth of its length beyond the hind wings. Legs slender, not pilose; hind tibiæ with four moderately long spurs. Wings rather narrow. Fore wings slightly convex in front, slightly acuminate at the tips, slightly oblique along the exterior border; first and second inferior veins contiguous at the base; third more than six times further from the fourth than from the second.

### 1. PAGARA VENOSA.

Mas. *Lutea; palpi supra fusi; abdomen vitta dorsali fusca, basi subfuscusque albidum; pedes albidi, coxis anticis luteis; alæ albidae, marginibus subfuscouscentibus, venis fuscis.*

*Male.* Luteous. Proboscis tawny. Palpi brown above. Antennæ whitish; branches black at the base. Abdomen with a brown dorsal stripe, whitish towards the base and beneath. Legs whitish; fore coxæ luteous. Wings whitish; very slightly tinged with brown towards the borders; veins brown, whitish towards the base in the hind wings. Length of the body 4 lines; of the wings 12 lines.

Brazil. In Mr. Saunders' collection.

### 2. PAGARA SIMPLEX.

Mas. *Albido-cinerea; palpi nigri, porrecti, acuminati, caput superantes; prothorax pallide luteus; abdomen testaceum, maculis dorsalibus fuscis; alæ subvestitæ.*

*Male.* Whitish cinereous. Palpi and antennæ black, the former porrect, acuminate, extending some distance beyond the head. Prothorax pale luteous. Abdomen testaceous, with brown dorsal spots. Wings very thinly clothed. Length of the body  $3\frac{1}{2}$  lines; of the wings 10 lines.

a. —? From Mr. Milne's collection.

*Page 476.***MELASINA CILIARIS.**

*Bombyx lugubris*, *Hübn.* *Bomb.* pl. 51, f. 216.

*Eyprepia ciliaris*, *Ochs.* *Schmett.* iii. 350, 26.

*Coracia lugubris*, *Hübn.* *Verz.* *Schmett.* 168, 1738.

*Coracia ciliaris*, *Hübn.* *Verz.* *Schmett.* 168, 1739.

*Page 482.***ARDONEA MUNDA.**

*Cyanea*; *caput et prothorax coccinea*; *palpi coccinei, apice nigri*; *abdomen alas posticas triente superans*; *alæ mediocriter latæ, ciliis albis nigro interruptis.*

*Female.* Deep blue. Head, and fore border of the thorax and of the pectus crimson. Palpi crimson, with black tips. Proboscis piceous. Antennæ black. Abdomen extending for about one-third of its length beyond the hind wings. Wings moderately broad; fringe white, with a black interval on the middle of the exterior border of each wing, and another towards the interior angle of the hind wings. Length of the body 4 lines; of the wings 12 lines.

a. St. Domingo. From Mr. Tweedie's collection.

*Page 487.***HYPOPREPIA DELINEATA.**

*Ammatho figuratus*, p. 759.

*Page 488.***HYPOPREPIA LANCEOLATA.**

*Fœm.* *Pallide flava*; *caput nigro uniguttatum*; *thorax vitta maculisque duabus anticis rufis, guttis quatuor nigris vittisque quatuor rufis posterioribus*; *alæ anticae basi fuscō biguttatae, fasciis tribus angulatis guttularibus fuscis, strigis lanceolatis rufis*; *posticæ marginibus latis diffusis rufescensibus.*

*Female.* Pale yellow. Head with a black dot between the antennæ. Thorax with a red stripe and two red bands in front, and with four black dots and four red stripes in the middle. Fore wings with two brown dots at the base, with three angular bands of brown dots, and with red lanceolate streaks in the disks of the areolets. Hind wings with broad diffuse reddish borders. Length of the body 5 lines; of the wings 14 lines.

China. In Mr. Saunders' collection.

## HYPOPREPPIA ZICZAC.

Fœm. *Alba*; *caput fusco uniguttatum*; *antennæ testaceæ*; *thorax anticus fascia interrupta rosea*; *alæ anticæ roseo marginatae*, *fusco trifasciatæ*, *fascia 3a angulosa perobliqua*, *guttis exterioribus fuscis*; *posticæ pallide roseæ*.

*Female.* White. Head with a brown dot between the eyes. Proboscis tawny. Antennæ testaceous. Thorax with an interrupted rosy band in front. Fore wings rosy along most of the borders, with three very slender brown bands; first and second bands almost straight and upright; third exterior, extremely oblique and zigzag, and accompanied by brown dots. Hind wings pale rose-colour. Length of the body 4 lines; of the wings 12 lines.

China. In Mr. Saunders' collection.

Page 490.

## Genus APYRE.

May be transferred to the *Zygænidæ*, being nearly allied to the genus *Automolis*.

Page 491.

## Genus MELESE.

Belongs to the *Arctiidæ*.

Page 494.

## LITHOSIA GIGAS.

Var. Fœm. *Nigricans*; *caput, prothorax, thoracis vittæ duæ*, *pectus, necnon abdomen apice subtusque lutea*; *abdominis latera albo maculata*; *alæ anticæ macula basali nigra*, *posticæ basi albidae*.

Var. *Female.* Blackish. Head, prothorax, two stripes on the thorax, and pectus luteous. Abdomen luteous at the tip and beneath, and with a row of white spots along each side. Fore wings with a black dot on each at the base. Hind wings whitish towards the base, and especially so beneath.

In Mr. Saunders' collection.

*Page 495.*

LITHOSIA BIVITTA.

Fœm. *Albida*; *palpi apice nigri*; *antennæ apice nigræ*; *thorax viridi bimaculatus aut bivittatus*; *pedes ex parte virides*; *alæ anticae viridi bivittatae, nonnunquam cervino-albidæ viridi tristrigatae*.

*Female.* Whitish. Proboscis tawny. Palpi with black tips. Antennæ black. Thorax with a green spot on each side by the fore wing. Legs partly green. Fore wings with two green stripes, which extend nearly to the tips. Length of the body 7—8 lines; of the wings 22—26 lines.

Hindostan. In Mr. Saunders' collection.

*Var.* Thorax with a green stripe along each side. Fore wings partly very pale fawn-colour; fore green stripe very narrow. Hind stripe dislocated, and with two interruptions.

Hindostan. In Mr. Saunders' collection.

*Page 507.*

LITHOSIA REPLANA.

*Var.* Blackish gray. Head luteous, with a black band. Thorax luteous in front. Fore wings white along the costa. Abdomen and legs whitish. Hind wings pale luteous.

Van Dieman's Land. In Mr. Saunders' collection.

LITHOSIA ALBICANS.

Fœm. *Albicans*; *antennæ nigræ*; *alæ latiusculæ*.

*Female.* Whitish. Proboscis ferruginous. Antennæ black. Wings whitish, rather broad. Length of the body 5 lines; of the wings 16 lines.

—? In Mr. Saunders' collection.

*Page 511.*

LITHOSIA BICOLORA.

j. Tasmania. Presented by Morton Allport, Esq.

## LITHOSIA LATICINCTA.

Mas. *Nigra*; *thorax rufus*, postice *nigricans*; *abdomen apice fasciculatum*, *disco subtus rufo*; *alæ anticæ rufæ*, *marginibus apices versus nigris*; *posticæ luteæ*, *marginibus latissimis nigris*.

*Male.* Black. Proboscis ferruginous. Antennæ rather stout. Thorax red, blackish hindward. Abdomen tufted at the tip; disk beneath red. Fore wings red from the base to beyond the middle, with a red discal stripe from thence nearly to the tips. Hind wings luteous, with very broad black borders; luteous part with notch near the interior border. Length of the body 4 lines; of the wings 13 lines.

a. Ceram. From Madame Ida Pfeiffer's collection.

## Page 523.

The genera *Cydosia*, *Areva*, *Atteva*, *Mieza*, *Doliche* and *Eutane*, appear to connect the *Lithosiidae* with the *Tineites*.

## Page 524.

## CYDOSIA NOBILITELLA.

- i. \_\_\_\_? Presented by E. Doubleday, Esq.
- j. Vera Cruz. From M. Sallé's collection.
- k. St. Domingo. From Mr. Hearne's collection.
- l, m. St. Domingo. From Mr. Tweedie's collection.
- n. Honduras. From Mr. Dyson's collection.

## Page 542.

## ÆMENE TAPROBANIS.

- c, d. Ceylon. Presented by R. Templeton, Esq.
- e. North India. From Mr. James' collection.

The black marks of the fore wings are variable in form, size and position.

## Page 548.

## Fam. CALLIMORPHIDÆ.

The genera *Bizone*, *Costulo*, *Ruscino*, *Eudesmia* and *Deiopeia*, may be associated in one family with the above name.

*Page 552.*

BIZONE FASCICULATA.

Mas. *Candida*; *palpi nigricantes*; *antennæ testaceæ*, *thorax anticus rufo fasciatus*; *abdomen testaceum*, *apice album*; *alæ anticæ rufo bifasciatae*, *apud costam fasciculatae subtus incrassatae*, *guttis duabus anticis nigro-fuscis*.

Male. Pure white. Proboscis and antennæ testaceous, the latter minutely setose. Palpi blackish, except towards the base. Thorax with a red band in front. Abdomen testaceous, with a white tip. Fore wings incrassated in front beneath, and with a tuft along the costa between two slender red bands; first band prolonged on the costa to the base of the wing; second more curved than the first; two blackish brown spots in front between them. Length of the body 6 lines; of the wings 16 lines.

Hindostan. In Mr. Saunders' collection.

BIZONE BIANCA.

Mas. *Alba*; *palpi testacei*; *thorax fascia media maculaque postica rufis*; *abdomen supra subrufescens*; *pedes ex parte rufescentes*; *alæ anticæ fasciis quatuor rufis guttisque tribus anticis nigris*; *posticæ rufæ*, *costa ciliisque albis*.

Male. White. Proboscis and palpi testaceous. Thorax with a red band in the middle, and a red spot behind. Abdomen slightly reddish above. Legs partly reddish. Fore wings with four red bands; first band nearly basal; fourth apical; second and third bordered with black, the former on the inner side, the latter on the outer side; three black dots in front between the second and third bands. Hind wings red, whitish in front and with white ciliæ. Length of the body 4 lines; of the wings 12 lines.

Hindostan. In Mr. Saunders' collection.

*Page 554.*

The genera *Ameria*, *Myrice*, *Asiona*, *Soloe*, *Secusio* and *Petovia*, much resemble the *Geometrites*.

## MITTOCHISTA STRAMINEA.

Fœm. *Albida*; *palpi et pedes pallide testacei*; *alæ anticæ pallide testaceæ, guttis basalibus et exterioribus unaque discali necnon fasciis tribus fuscis*.

*Female.* Whitish. Proboscis, palpi, antennæ and legs pale testaceous. Fore wings very pale straw-colour; some brown dots near the base, one in the disk, and two rows of brown dots along the exterior border; three slender pale brown bands; third extremely zigzag. Length of the body  $3\frac{1}{2}$  lines; of the wings 12 lines.

Hindostan. In Mr. Saunders' collection.

*Page 559.*

## SECUSIO? PHEDONIA.

*Testacea*; *alæ anticæ pallide cervinæ, maculis tribus albis nigro-cinctis, duabus exterioribus conjunctis*.

Bombyx Phedonia, Cram. Pap. Exot. iv. 110, pl. 347, f. C.  
Ophthalmis Phedonia, Hübn. Verz. Schmett. 166, 1718.

Cape.

*Page 560.*

## PETOVIA DICHROARIA.

(Geometra) dichroaria, Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. i. f. 189.

Petovia marginata, p. 560.

d. Port Natal. From M. Gueinzius' collection.

*Page 568.*

## DEIOPEIA VENUSTA.

c. Sumatra. From Sir Stamford Raffles' collection.

## DEIOPEIA SPECIOSA.

d. St. Domingo. From Mr. Tweedie's collection.

Page 571.

## DEIOPEIA ARGUS.

e. North India (Sikkim, Himalaya). From Dr. Hooker's collection.

## Genus SIDYMA.

*Mas.* Corpus sat gracile. Proboscis thorace longior. Palpi validi, ascendentes, verticem non attingentes; articulus 3us minutus, conicus. Antennæ mediocriter pectinatae, thorace longiores. Abdomen alas posticas non superans. Pedes sat graciles; tibiæ posticæ calcaribus quatuor longis. Alæ latiusculæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore mediocriter obliqua.

Apparently allied to the *Geometrites*. *Male*.—Body rather slender. Proboscis longer than the thorax. Palpi stout, ascending, not so high as the vertex; third joint minute, conical, about one-third of the length of the second. Antennæ moderately pectinated, longer than the thorax. Abdomen extending as far as the hind wings. Legs rather slender; fore tibiæ with an appendage beneath; hind tibiæ with four long spurs. Wings rather broad. Fore wings straight in front, rounded at the tips, moderately oblique along the exterior border; first and second inferior veins contiguous at the base; third about thrice further from the fourth than from the second.

## 1. SIDYMA ALBIFINIS.

*Mas.* *Pallidissime cervina*; *palpi apice nigri*; *prothorax, pectus, coxae femoraque basi lutea*; *abdomen apice subluteum*; *alæ apice albæ*.

*Male*. Very pale fawn-colour. Proboscis tawny. Palpi with black tips. Antennæ with brown branches. Prothorax, pectus, coxae and femora towards the base luteous. Abdomen slightly luteous at the tip. Wings with white tips. Length of the body 7 lines; of the wings 18 lines.

Hindostan. In Mr. Saunders' collection.

## Genus CADYANDA.

*Mas.* Corpus gracile. Proboscis mediocriter longa. Palpi breves, graciles, lanceolati, ascendentibus; articulus 3us minutus, acuminatus. Antennæ subpectinatæ, corporis dimidio multo longiores. Pedes graciles; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ latæ; anticæ apud costam rectæ, apice subacuminatæ, margine exteriore mediocriter obliquæ.

Apparently related to the *Geometrites*. *Male.*—Body slender. Proboscis moderately long. Palpi short, slender, lanceolate, ascending; third joint minute, acuminate. Antennæ minutely pectinated, very much more than half the length of the body. Abdomen not extending so far as the hind wings. Legs slender; hind tibiæ with four moderately long spurs. Wings broad. Fore wings straight in front, slightly acuminate at the tips, moderately oblique along the exterior border; second inferior vein full six times further from the third than from the first.

## CADYANDA LUGENS.

*Mas.* *Nigricans*; caput supra luteum, antice testaceum; abdomen guttis lateralibus albis, apice luteum; pedes fusi; alæ maculæ discalibus fasciaque exteriore guttulari obliqua albidis.

*Male.* Blackish. Head luteous above, testaceous in front. Proboscis testaceous. Abdomen with a row of white dots on each side; tip luteous. Legs brown. Wings with some whitish discal spots, and with an oblique exterior band of whitish dots, which are most distinct in the hind wings. Length of the body 7 lines; of the wings 19 lines.

—? In Mr. Saunders' collection.

Page 572.

## CASTULO PLAGIATA.

*i, j.* Van Dieman's Land. Presented by Morton Allport, Esq.  
*k.* Van Dieman's Land. From Mr. A. J. Smith's collection.

Page 581.

## Genus SIOSTA.

Antennæ serratæ. Alæ anticæ excisuris duabus apud marginem exteriorem.

## 1. SIOSTA BIFASCIATA.

*Alæ nigræ, virescenti cœruleo mutabilique micantes, anticæ fascia transversa coccinea.*

Callimorpha bifasciata, *Latr. Humb. Voy. ii. 132, 157, pl. 43, f. 7, 8.*

Body black. Antennæ serrated. Fore wings with two concave indentations on the exterior border.

South America.

*Page 581.*

## Genus ERITHALES.

Lingua distincta. Palpi cylindracei, extra caput producti, articulo 3o oviformi. Antennæ *maris* valde pectinatæ. Alæ omnes abdomen tegentes.

Erithales, *Poey, Cent. Lép. Cuba.*

## 1. ERITHALES GUACOLDA.

*Alæ fuscæ; anticæ partim dilutiores, punctis plurimis nigris; abdomen fulvum; corpus et pedes nigro punctata.*

Erithales Guacolda, *Poey, Cent. Lép. Cuba.*

Cuba.

## Genus GONODONTA.

Corpus sat gracile. Antennæ graciles. Abdomen alas posticas non superans. Alæ mediocriter latæ; anticæ apud costam subrectæ, apice rotundatæ, margine exteriore sat obliquo, angulo interiore producto acuto.

Gonodonta, *Hübn. Verz. Schmett. 263.*

## 1. GONODONTA LINCUS.

*Subcinerea; abdomen luteum; alæ anticæ nigræ, postica angulata, apices versus testaceæ fascia linearis obliqua alba; posticæ nigro late submarginatæ.*

Phalæna-Bombyx Lincus, *Cram. Pap. Exot. i. 79, pl. 50, f. H.*  
*Gonodonta Lincus, Hübn. Verz. Schmett. 263, 2586.*

Surinam.

## Genus TERMESSA.

*Mas et fæm.* Corpus gracile. Proboscis capitis latitudine paullo longior. Palpi ascendentibus; articulus 3us longi-conicus. Antennæ graciles, corporis dimidio multo longiores, *maris* subsetosæ, *fæminæ* vix setosæ. Pedes graciles; tibiæ posticæ calcaribus quatuor longis. Alæ latæ; anticæ apud costam vix convexæ, apice subrotundatae, margine exteriore subobliquo; posticæ abdomen superantes.

Body slender. Proboscis rather longer than the breadth of the head. Palpi ascending; third joint elongate-conical, about one-third of the length of the second. Antennæ slender, much more than half the length of the body, minutely setose in the male, hardly setose in the female. Abdomen not extending so far as the hind wings. Legs slender; hind tibiae with four long spurs. Wings broad. Fore wings very slightly convex in front, somewhat rounded at the tips, slightly oblique along the exterior border; second inferior vein nearly as far from the first as from the third; third about four times further from the fourth than from the second.

## 1. TERMESSA LÆTA.

*Mas et fæm.* *Lutea*; *palpi nigri*; *alæ anticæ albidae, fasciis quatuor nigro-fuscis, posticæ nigro-fusco bimaculatae*. *Mas*.—*Thorax nigro-fuscus, albido bivittatus*. *Fæm.*.—*Thorax albidus, fascia antica nigro-fusca; alæ posticæ macula apud marginem interiorem nigro-fusca*.

*Male and female.* Luteous. Proboscis tawny. Palpi and antennæ black. Anterior legs partly black. Fore wings mostly whitish, with four dark brown bands; first band basal; second and third slightly zigzag; fourth apical. Hind wings with two dark brown spots; one near the interior angle, larger than the other which is near the tip of the costa. *Male*.—Thorax blackish brown, with two whitish stripes. Third and fourth bands of the fore wings connected by three or four streaks. *Female*.—Thorax whitish, with a blackish brown band in front. Bands of the fore wings narrower than in the male; first and fourth bands abbreviated hindward; fourth separate from the third, or united to it by a single streak. Hind wings with a blackish brown spot on the interior border. Length of the body 4—5 lines; of the wings 12—14 lines.

- a.* Tasmania. Presented by — Walcott, Esq.  
*c.* Sydney. Presented by E. Doubleday, Esq.  
*d.* Sydney. From Mr. Lambert's collection.

### Genus LEMYRA.

*Fæm.* Corpus vix robustum. Proboscis distincta, brevissima. Palpi porrecti, lanceolati, caput per paullo superantes; articulus 3us minutus, acutus. Antennæ subpectinatæ, corporis dimidio longiores. Abdomen alas posticas non superans. Pedes validi; tibiæ posticæ calcaribus duobus minutis apicalibus. Alæ angustæ, longissimæ; anticæ apud costam vix convexæ, apice rotundatae, margine exteriore pero obliquo.

*Female.* Body hardly stout. Proboscis distinct, very short. Palpi porrect, lanceolate, extending very little beyond the head; third joint minute, acute. Antennæ minutely pectinated, more than half the length of the body. Abdomen extending as far as the hind wings. Legs stout; hind tibiæ with two minute apical spurs. Wings narrow, very long. Fore wings hardly convex in front, rounded at the tips, extremely oblique along the exterior border; first and second inferior veins contiguous at the base; third near the second; fourth very remote.

### LEMYRA EXTENSA.

*Fæm.* *Lutea;* vertex nigro maculatus; palpi et antennæ nigra; thorax maculis duabus anticus vittisque duabus lateralibus nigris; abdomen e guttis nigris trivittatum; pedes ex parte nigri; alæ nigro marginatae, anticæ strigis basalibus fasciisque duabus angulatis nigris, posticæ gutta discali nigra.

*Female.* Luteous. Head with a black spot on the vertex. Palpi and antennæ black. Thorax with two black spots in front, and with two lateral stripes. Abdomen with three rows of black dots. Legs partly black. Wings with black borders. Fore wings with black basal streaks, and with two black angular bands; second band connected by two streaks with the black border. Hind wings with a black discal dot. Length of the body 4 lines; of the wings 16 lines.

- a.* Celebes. From Madame Ida Pfeiffer's collection.

### Genus GEODENA.

*Mas.* Corpus gracillimum. Proboscis capit is latitudine multo longior. Palpi graciles, porrecti, caput non superantes; articulus 3us minutus, conicus, acuminatus. Antennæ late pectinatæ, corporis dimidio multo longiores. Abdomen alas posticas non superans. Pedes graciles; tibiæ posticæ calcaribus quatuor longis. Alæ longiusculæ, mediocriter latæ; anticæ vix acuminatæ, apud costam subconvexæ, margine exteriore perobliquo.

*Male.* Body very slender. Proboscis much longer than the head. Palpi slender, porrect, not extending beyond the head; third joint minute, conical, acuminated. Antennæ deeply pectinated, much more than half the length of the body. Abdomen extending as far as the hind wings. Legs slender; hind tibiæ with four long spurs. Wings rather long, moderately broad. Fore wings very slightly convex in front, hardly acuminated at the tips, very oblique along the exterior border; second inferior vein rather further from the third than from the first; third full six times further from the fourth than from the second. *G. marginalis* differs from the typical species, *G. quadrigutta*, in the structure of the palpi, which are obliquely ascending, and with the third joint obtuse and very minute.

#### 1. GEODENA QUADRIGUTTA.

*Mas. Alba; caput subluteum, fascia antica nigro-fusca; thorax anticus subluteus; palpi testacei, apice nigri; pedes nigro vittati; abdomen albido-testaceum; alæ nigro quadriguttatae.*

*Male.* White. Head and fore part of the thorax slightly luteous. Head with a blackish brown band in front. Proboscis tawny. Palpi testaceous, with black tips. Antennæ black. Abdomen whitish testaceous. Legs with blackish stripes. Wings with a black dot at the tip of the discal areolet; costa of the fore wings black; hind wings with a smaller dot than that of the fore wings. Length of the body 4 lines; of the wings 13 lines.

a. —? From Mr. Milne's collection.

#### 2. GEODENA MARGINALIS.

*Mas. Alba; caput pallide luteum; proboscis nigra; palpi supra fusci; thorax fascia antica lutea; alæ nigro-fusco quadriguttatae, margine exteriore pallide fusco; anticæ apud costam pallide fuscæ.*

*Male.* White. Head pale luteous. Proboscis black. Palpi brown above. Thorax with a luteous band in front. Wings with a dark brown discal dot, and with a pale brown exterior border. Fore wings pale brown along the costa, and with the discal dot larger than in the hind wings, and the brown border much broader. Length of the body 5 lines; of the wings 16 lines.

a. Sierra Leone. Presented by the Rev. D. F. Morgan.

*Page 589.*

**Genus TRICHOSOMA.**

*Oenogyna*, Lederer, *Verhandl. Zool. Botan. Vereins zu Wien.* ii. &c.

*Page 590.*

**TRICHOSOMA BOETICUM.**

c. South Spain. From M. Becker's collection.

*Page 611.*

**ARCTIA ISABELLA.**

Connects *Arctia* with *Spilosoma*.

a, b. Trenton Falls, New York. Presented by E. Doubleday, Esq.

c. Nova Scotia. From Lieut. Redman's collection.

d. ——?

**ARCTIA GELIDA.**

a, b. Winter Cove and Cambridge Bay, Arctic America. Presented by Capt. Collinson, R. N., H.M.S. Enterprise.

**ARCTIA HYPERBOREA.**

*Var.?* Body brown, reddish beneath and at the tip of the abdomen. Thorax with a whitish band in front. Fore wings with two basal and four costal irregular whitish spots, the third and fourth costal spots forming parts of two interrupted whitish bands.

a—d. (d. larva). Winter Cove and Cambridge Bay, Arctic America. Presented by Capt. Collinson, R.N., H.M.S. Enterprise.

*Page 615.*

Genus BRACCA.

1. BRACCA BAJULARIA.

*Bracca bajularia, Hübn. Verz. Schmett. 179, 1849.  
Arctia? bajularia, p. 615.*

*Page 616.*

Genus PERICALLIA.

*Pleretes, Lederer, Verhandl. Zool. Botan. Vereins zu Wien. ii. &c.*

*Page 619.*

DARITIS MARGINALIS.

Mas. *Nigro-fusca; thorax fascia interrupta flava; abdomen rufum, nigro trivittatum, subtus flavum; pedes flavo strigati; alæ anticæ gutta basali rufa, fascia latissima vitrea maculaque magna subquadrata nigro-fusca, guttis submarginalibus semi-hyalinis; posticæ vitreæ, marginibus nigro-fuscis rufo vitreo-que variis.*

*Male.* Blackish brown. Thorax with a bright yellow band, which is dilated on each side and widely interrupted in the middle. Abdomen red, with one dorsal and two lateral black stripes; under side yellow. Legs with yellow streaks. Fore wings with a red basal and costal dot, and beyond the middle with a very broad vitreous band, which is dilated in front, and there contains a large blackish brown subquadrate spot; disk towards the base semihyaline; exterior border with a row of semihyaline dots; these are most apparent on the under side, where the subapical part is red. Hind wings vitreous, with blackish brown borders, the latter are interruptedly interlined with red, and contain also a row of vitreous dots; a blackish brown streak across the tip of the discal areolet. Length of the body 11 lines; of the wings 31 lines.

This species is closely allied to some species of *Pericopis*, and thus connects the *Arctiidæ* with the *Pericopidæ*.

Santa Fé de Bogotà. In Mr. Saunders' collection.

*Page 622.*

**AMMALO? CRUENTUS.**

*Fuscus, subtus rufescens; antennæ corpore paullo breviores; abdomen rufum; alæ subangulatæ, anticæ maculis rufescentibus, gutta discali albida; posticæ roseo albæ.*

Phalæna-Bombyx cruenta, Anon. *Ins. Surin.* 169, pl. 73.

Surinam.

**AMMALO? LEUCOSTIGMA.**

*Fusco-cinereus; caput et abdomen rufa; thorax rufo trimaculatus; pedes rufi; alæ anticæ gutta discali alba, fasciis tribus rufis, 3a marginali; posticæ albidæ.*

Phalæna-Bombyx leucostigma, Anon. *Ins. Surin.* 247, pl. 112.

Surinam.

*Page 631.*

**PHRAGMATOBIA? MYCALIA.**

*Ferruginea; alæ nigricantes, linea marginali ferruginea; anticæ fasciis duabus obliquis antice approximatis postice linea marginali connexis ferrugineis.*

Phalæna-Bombyx Mycalia, Stoll, *Cram. Pap. Exot.* 158, pl. 35, f. 4, pl. 21, f. 5, H, (larva).

Surinam.

*Page 672.*

**SPILOSOMA LINEATUM.**

d. Port Natal. From M. Gueinzius' collection.

*Page 675.*

**SPILOSOMA 4-RAMOSUM.**

The branches of the discal stripe vary in number from one to three.

a. North India. From Capt. Reid's collection.

*Page 679.*

SPILOSOMA METARHODA.

Fœm. *Album; palpi rosei; apice nigri; abdomen supra roseum, maculis dorsalibus nigris, subtus e guttis nigris bivittatum; pedes rufo strigati, ex parte nigri; alæ anticæ albido-cervinæ, guttis paucis nigris; posticæ roseæ.*

Female. White. Palpi rose-colour, with black tips. Antennæ black. Abdomen above rosy red, with black dorsal spots; under side with two rows of black dots along each side. Legs streaked with red, partly black. Fore wings whitish fawn-colour, with a black dot at the base, with another on the discal areolet, with two by the interior border, and with one near the interior border and at a short distance from the base; under side rosy red, as are also the hind wings, which have a black discal dot beneath. Length of the body 7 lines; of the wings 20 lines.

Manilla. In Mr. Saunders' collection.

SPILOSOMA CURVATUM.

*Alæ testaceæ; anticæ fasciola curvata punctisque nigris; posticæ basi roseæ nigroque bifasciatæ.*

Bombyx curvata, *Donov. Epit. Ins. New Holl.* pl.

Spilosoma curvata, *Boisd. Voy. de l'Astrolabe*, Pt. 1. *Lep. 222*, 3.

New Holland.

SPILOSOMA? BEGGA.

*Album; pedes lutei, tarsis nigris; alæ anticæ costa nigra.*

Phalæna-Bombyx Begga, *Cram. Pap. Exot.* iv. 125, pl. 355, f. E. *Stoll, Suppl.* pl. 19, f. 3, 3 E. *Anon. Ins. Surinam*, 59, pl. 29, 6.

Laria Begga, *Hübn. Verz. Schmett.* (*Phalæna Veræ Leucomæ Albæ*), 159, 1658.

Surinam.

SPILOSOMA? ZATIMA.

*Testaceum; caput et thorax anticus nigra; abdomen nigrum, basi apiceque testaceum; alæ testaceo venosæ et ciliatæ, anticæ vitta discali testacea.*

*Phalæna Zatima*, *Cram. Pap. Exot.* iv. 182, pl. 381, f. F.  
*Olistheria Zatima*, *Hüb. Verz. Schmett.* 194, 1987.

Surinam.

### SPILOSOMA OBSCURUM.

Fœm. *Fuscum; palpi apice nigri; abdomen rufescens, maculis lateralibus nigris; pedes pallidi, femoribus apice nigris, anticis rufis, tarsis anticis nigro fasciatis; alæ testaceæ, anticæ fasciis tribus diffusis punctisque fuscis, subtus apud costam basalem rufescentes gutta subcostali nigra; posticæ gutta discali nigra, basi rufescentes.*

Female. Brown. Palpi with black tips. Antennæ testaceous. Abdomen reddish, paler beneath, with black spots along each side. Legs pale; femora with black tips; fore femora red; fore tarsi with black bands. Wings testaceous. Fore wings flecked with brown, traversed by three diffuse and incomplete dark brown bands; under side red along the costa towards the base, with a black subcostal dot. Hind wing with a black discal dot, reddish towards the base. Length of the body 6 lines; of the wings 18 lines.

a. South Africa. From Mr. Argent's collection.

### SPILOSOMA? MACULOSUM.

*Album; caput et thorax nigro guttata; abdomen luteum, maculis dorsalibus nigris; alæ anticæ ocellis plurimis nigris; posticæ macula postica nigra.*

*Phalæna-Bombyx maculosa*, *Cram. Pap. Exot.* iv. 156, pl. 370, f. B.  
*Epantheria assimilis*, *Hüb. Verz. Schmett.* 183, 1890.

Sierra Leone.

### SPILOSOMA PUNCTARIUM.

*Album; abdomen rufum, maculis dorsalibus nigris; alæ anticæ maculis plurimis basalibus et costalibus nigris, posticæ maculis quatuor discalibus nigris.*

*Phalæna-Bombyx punctaria*, *Cram. Pap. Exot.* iv. 233, pl. 398, f. D.

Japan.

## SPILOSOMA? NICETA.

*Pallide cervinum; abdomen rufum; alæ anticae maculis tribus posticis unaque antica nigra; posticæ rufæ, macula arcuata discali nigra.*

Phalæna-Bombyx Niceta, *Cram. Pap. Exot.* iv. 151, pl. 368, f. C.  
Amboina.

## SPILOSOMA MUTANS.

Mas. *Album; palpi nigri; tibiæ tarsique ex parte nigra; coxae femoraque antica lutea; alæ anticae fasciis tribus guttularibus nigricantibus.*

*Male.* White. Palpi and antennæ black. Tibiæ and tarsi mostly black. Fore femora and fore coxae luteous. Fore wings with three imperfect bands of blackish dots, which vary much in number. Length of the body 5 lines; of the wings 14 lines.

— ? In Mr. Saunders' collection.

## SPILOSOMA SUBOCELLATUM.

Fœm. *Album; caput antice nigrum, subtus rufum; thorax nigro trivittatus; abdomen e mavulis nigris trivittatum, supra rufum; pedes ex parte nigri, coxis femoribusque anticas rufis; alæ anticae maculis tribus costalibus nigro-fuscis fasciisque quatuor obliquis diffusis pallide fuscis, fascia 3a antice subocellari; posticæ macula antica fasciaque submarginali pallide fuscis.*

*Female.* White. Head black in front, red beneath. Palpi and antennæ black. Thorax with three black stripes, the lateral pair abbreviated hindward, the dorsal one in front. Abdomen red above, with three rows of black spots above and beneath. Legs partly black; fore coxae and fore femora mostly red. Fore wings with three dark brown costal spots, and with four oblique irregular pale brown bands; third forming a ringlet in front. Hind wings with a pale brown spot in front, and with a pale brown submarginal band. Length of the body 8 lines; of the wings 24 lines.

a. Australia. From Mr. Stevens' collection.

**SPILOSOMA CONSPURCATUM.**

**Mas.** *Album, ex parte subtestacea; capitis latera subtus palpique nigra; thorax fusco quadrimaculatus; abdomen luteum; alæ anticæ gutta basali nigro-fusca, fasciis duabus latis obliquis guttisque nonnullis pallide fuscis; posticæ fascia lata interrupta submarginali guttaque discali pallide fuscis.*

**Male.** White, slightly and partly tinged with testaceous. Head on each side beneath and palpi black. Antennæ brownish. Thorax with two dorsal brown spots in front, and with four lateral brown spots. Abdomen luteous. Fore wings with a dark brown basal dot, and with two pale brown broad irregular oblique bands, which are accompanied by some pale brown dots. Hind wings with a pale brown much interrupted submarginal band, and with a discal dot of the same hue. Length of the body 5 lines; of the wings 13 lines.

**a. Java.** From the East India Company's collection.

**Genus ISIA.**

*Mas et fœm.* Corpus vix robustum. Proboscis brevissima. Palpi breves, porrecti, caput non superantes; articulus 3us minutus, conicus. Antennæ simplices, subsetosæ, thorace multo longiores. Abdomen alas posticas non superans. Pedes sat graciles; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ latiusculæ, apud costam subconvexæ, apice rotundatæ, margine exteriore sat obliquo.

Body hardly stout. Proboscis very short. Palpi short, porrect, not extending beyond the head; third joint minute, conical. Antennæ simple and minutely setose in both sexes, much longer than the thorax. Abdomen not extending beyond the hind wings. Legs rather slender; hind tibiæ with four moderately long spurs. Wings rather broad. Fore wings hardly convex in front, slightly rounded at the tips, moderately oblique along the exterior border; first, second and third inferior veins almost contiguous at the base; fourth remote.

**1. ISIA INTRICATA.**

*Mas et fœm.* *Albida; caput supra luteum; palpi nigri; abdomen luteum, maculis dorsalibus nigris; tibiæ basi tarsiisque nigra; alæ anticæ fasciis quatuor obliquis fuscis, 1a 3a 4aque interruptis, 1a duplicata, 2a lata, venis luteis; posticæ subluteæ, fasciis duabus interruptis aut subobsoletis fuscis.*

*Male and female.* Whitish. Head luteous above. Palpi and antennæ black. Abdomen luteous, with dorsal black spots. Tibiæ towards the base and tarsi black. Fore wings with four oblique brown bands, and with luteous veins; first and third bands very slender, interrupted, first double; second broad; fourth interrupted and composed of streaks along the veins. Hind wings with a slight luteous tinge, and with two oblique brown bands, which are interrupted in the female, and are partly or almost wholly obsolete in the male. Length of the body 5—6 lines; of the wings 16—18 lines.

Brazil. In Mr. Saunders' collection.

### Page 682.

#### CYCΝΙΑ TENERA.

*Alba; abdomen supra testaceum, vitta dorsali e guttis nigris; alæ ad costam testacea.*

Cycnia tenera, (*Phalæna Vera Hypercompa pallida*), Hübn. Samml. Exot. Schmett. i. 7, 2, f. 3, 4.

Georgia. Florida.

### Page 688.

#### Genus DINARA.

Corpus sat robustum. Proboscis brevis. Palpi breves, caput non adæquantes; articulus 3us minimus. Antennæ thorace longiores. Abdomen longiusculum, alas posticas triente superans. Pedes sat validi; tibiæ posticæ calcaribus quatuor longis. Alæ latiusculæ; anticae apud costam rectæ, apice acuminatæ, margine exteriore sat obliquo subundulato.

Body moderately stout. Proboscis short. Palpi short, not extending so far as the head; third joint very small. Antennæ longer than the thorax. Abdomen rather long, extending for one-third of its length beyond the hind wings. Legs moderately stout; hind tibiæ with four long spurs. Wings somewhat broad. Fore wings straight in front, acuminate at the tips, rather oblique and indistinctly undulating, and denticulated along the exterior border; first and second inferior veins contiguous at the base; third very remote. *Male.*—Antennæ moderately pectinated, much longer than those of the female. *Female.*—Antennæ serrated.

This genus is nearly allied to *Antheua*, and the Synopsis, p. 586, will include it with *Ardices*, from which it is distinguished by the greater length of the abdomen and by the denticulated fore wings.

## 1. DINARA LINEOLATA.

*Albida*; caput antice subtusque fulvum; abdomen supra luteum, guttis lateralibus nigris; alæ anticæ apud costam fuscescentes, striga discali, margine exteriore cinereo, interiore subtestaceo; posticæ marginibus fusco subconspersis.

Whitish. Head in front and beneath and palpi tawny. Antennæ testaceous. Abdomen luteous above, except towards the tip; a row of black dots along each side. Fore wings with an indistinct testaceous tinge towards the interior border, shaded with pale brown along the costa, and with darker gray along the exterior border; a slender hardly curved brown discal streak. Hind wings slightly powdered with brown towards the borders. Length of the body 10 lines; of the wings 20—22 lines.

Hindostan. In Mr. Saunders' collection.

## Genus ZANA.

*Fæm.* Corpus robustum. Proboscis non conspicua. Palpi brevissimi, caput non adæquantes. Antennæ serratæ, sat validæ. Abdomen alas posticas triente superans. Pedes validi; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ longiusculæ; anticæ apud costam rectæ, apice subacuminatæ, margine exteriore denticulato sat obliquo.

*Female.* Body stout. Proboscis not visible. Palpi very short, not extending so far as the head. Antennæ serrated, rather stout, much longer than the thorax. Abdomen extending for about one-third of its length beyond the hind wings. Legs stout; hind tibiæ with four spurs of moderate length. Wings rather long, moderately broad. Fore wings straight in front, slightly acuminate at the tips, denticulated and rather oblique along the exterior border; second inferior vein full eight times further from the third than from the first. Allied to *Anthena*.

## ZANA LIGNOSA.

*Fæm.* Sordide albida; abdomen supra luteum maculis laterali- bus nigris, subtus fusco vittatum; alæ anticæ striga basali fusca strigisque angulosis nigris discalibus et marginalibus.

*Female.* Dingy whitish. Antennæ blackish. Abdomen luteous above, with a row of black spots along each side; under

side with a brown stripe, which does not extend to the base. Fore wings with a brown basal streak, with some very acutely angular black streaks in the disk, and with a row of the same along the exterior border, towards which they are slightly brownish. Length of the body 9 lines; of the wings 21 lines.

a. North India. From Capt. Boys' collection.

### Genus PITHEA.

*Mas.* Corpus robustum. Caput, thorax et pedes pilosissima. Proboscis capitis latitudine multo longior. Palpi porrecti, caput paullo superantes; articulus 3us longi-conicus, acuminatus. Antennæ late pectinatae, thorace paullo longiores. Abdomen alas paullo superans. Pedes validi; tibiæ posticæ calcaribus quatuor longis. Alæ mediocriter latæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore pero obliquo.

*Male.* Body stout. Head, thorax and legs very densely pilose. Proboscis much longer than the breadth of the head. Palpi porrect, extending a little beyond the head; third joint elongate-conical, acuminate. Antennæ deeply pectinated, about three-fourths of the length of the body. Abdomen extending very little beyond the hind wings. Legs stout; hind tibiæ with four long spurs. Wings moderately broad. Fore wings straight in front, slightly rounded at the tips, very oblique along the exterior border; first and second inferior veins united at the base; third full four times further from the fourth than from the second.

This genus much resembles some of the *Noctuites*, and is perhaps almost as nearly allied to them as to the *Arctiidæ*.

#### 1. PITHEA FERRUGINEA.

*Mas.* *Ferruginea*; *palpi nigri*; *thorax postice fuscus*; *abdomen rufum*, *nigro quadrisfasciatum*; *tibiæ tarsique nigra*; *alæ anticæ fuscae*, *vitta costali testacea*; *posticæ subcinereæ*.

*Male.* Ferruginous. Palpi and antennæ black, the latter with tawny branches. Hind part of the thorax brown. Abdomen red, with four black bands towards the tip. Tibiæ and tarsi black. Fore wings brown, with a testaceous stripe along the costa. Hind wings grayish. Length of the body 6 lines; of the wings 16 lines. Santa Fé de Bogotà. In Mr. Saunders' collection.

*Page 696*

**ECPANTHERIA LÆTA.**

*Male. Var.* Bands of the fore wings more interrupted, and composed of smaller spots. Hind wings wholly white, except a streak towards the end of the interior border, and a costal subapical dot, which are blackish.

Brazil. In Mr. Saunders' collection.

*Page 709.*

**ALOA LANCEOLATA.**

Fœm. *Alba; palpi apice nigri; antennæ subpectinatæ, corpore paullo breviores; abdomen alas posticas triente superans, supra rufum, guttis nigris trivittatum; pedes graciles, longiusculi, nigro vittati, coxis anticis rufis; alæ longæ, angustæ.*

*Female.* White. Proboscis black. Palpi with black tips. Antennæ minutely pectinated, almost three-fourths of the length of the body; branches black. Abdomen extending for full one-third of its length beyond the hind wings; dorsum bright red, with three rows of black dots. Legs rather long and slender, with black stripes; fore coxæ red. Wings long and narrow; exterior border extremely oblique; third inferior vein full eight times further from the fourth than from the second, and hardly further from the second than the second is from the first. Length of the body 6 lines; of the wings 16 lines.

This species is of somewhat peculiar structure, and may form a new genus.

St. Domingo. In Mr. Saunders' collection.

**ALOA VACILLANS.**

Fœm. *Alba; abdomen luteum, vitta guttulari nigra, subtus fuscum aut albidum maculis lateralibus nigris; pedes fusi, coxis femoribusque luteo vittatis; alæ pallide fuscæ, anticæ apud costam albæ guttis nonnunquam discalibus nigris.*

*Female.* White. Antennæ black. Abdomen luteous, with a dorsal stripe of black dots; under side brown, with two rows of black spots on each side. Legs brown; coxæ and femora with luteous

stripes. Wings pale brown. Fore wings white along the costa, with four black dots in the disk, and with one near the end of the interior border. Length of the body 6—7½ lines; of the wings 16—20 lines.

*Var. β.* Abdomen whitish beneath. Fore wings without black dots.

*Var. γ.* Brownish white. Abdomen pale luteous.

a. North India. From Capt. Reid's collection.

b. Philippine Isles. From Mr. Cuming's collection.

c. Hong Kong. From Mr. Harrington's collection.

#### ALOA COMMA.

Fœm. *Pallide testacea ; palpi nigri ; abdomen rufescens, maculis subtus lateralibus nigris ; alæ anticæ maculis duabus costalibus strigaque apud marginem interiore arcuata nigris ; posticæ albidae.*

*Female.* Pale testaceous. Palpi and antennæ black. Abdomen reddish, with black spots along each side beneath. Fore wings with two black spots on the costa, and with a curved black streak on the interior border; first, second and third inferior veins approximate at the base; fourth very remote. Hind wings whitish. Length of the body 7 lines; of the wings 22 lines.

Hindostan. In Mr. Saunders' collection.

#### Page 716.

##### MALABUS? FUSCUS.

*Obscure fusca ; alæ anticæ macula antica flavescente ; posticæ pallidæ, sordide rufescentes.*

Phalæna-Bombyx fusca, *Cram. Pap. Exot.* iv. 37, pl. 307, f. G.

Antarctis fusca, *Hübn. Verz. Schmett.* 191, 1965.

Surinam.

#### Page 720.

##### PURIUS? PILUMNIA.

*Rufescens ; alæ pallide testaceæ, anticæ punctis vittisque tribus basalibus fuscis, guttisque discalibus nigris.*

Phalæna-Bombyx Pilumnia, *Cram. Pap. Exot.* iv. 36, pl. 307, f. D.

Ocneria Pilumnia, Hübn. Verz. Schmett. (*Phalænæ Veræ Hypo-gymniæ Subsquamatæ*), 158, 1650.

Surinam?

*Page 724.*

AMASTUS MESORHODA.

Fœm. *Pallide fuscus; palpi nigri; thorax fascia antica vittisque duabus nigris; abdomen supra nigrum, roseo fasciculatum; pedes antici nigro strigati; alæ subhyalinæ, anticæ fascia exteriori nigricante, posticæ subcinereæ.*

*Female.* Pale brown. Proboscis tawny. Palpi black. Antennæ black, with tawny branches. Thorax with two lateral black stripes, which are connected by a black band in front. Abdomen black above, with a tuft of rosy hairs, occupying most of the breadth and full half the length from the base. Fore legs streaked with black. Wings slightly hyaline. Fore wings with an indistinct exterior blackish band. Hind wings grayish. Length of the body 9 lines; of the wings 29 lines.

Bogotà. In Mr. Saunders' collection.

*Page 725.*

AMERILA ASTRÆA.

*Var. ζ.* Head, thorax and fore wings testaceous. Prothorax without dorsal black spots. Fore wings with the vitreous spot abbreviated hindward, and more contracted as to its breadth than is usual in this species.

Silhet.

Port Natal. In Mr. Saunders' collection.

*Page 729.*

OPHARUS BASALIS.

Mas. *Fusca; caput testaceum, apud oculos nigrum; thorax testaceus; abdomen nigro-fuscum, testaceo marginatum; coxae femoraque lutea; alæ anticæ apud costam subconvexæ, nebula exteriori obscure fusca, venis ex parte nigro-fuscis, margine interiore basi testaceo et fasciculato.*

*Male.* Brown. Head testaceous, black about the eyes. Proboscis tawny. Palpi with the third joint a little shorter than in

*O. Procrioides.* Antennæ a little shorter than the body. Thorax, pectus and abdomen testaceous; disk of the latter blackish brown above and beneath. Legs long; coxæ and femora mostly luteous. Fore wings somewhat convex in front, slightly clouded with darker brown beyond the discal areolet; veins partly blackish brown; interior border testaceous, and tufted for a short distance from the base. Length of the body 6—7 lines; of the wings 18—20 lines.

South America. In Mr. Saunders' collection.

*Page 732.*

**HALESIDOTA TESSELARIS.**

*Halesidota tessellaris*, (*Phalæna Vera Hypocrita Sphingiformis*),  
Geyer, Zeitr. Samml. Exot. Schmett. 34, 470, f. 939, 940.

Georgia.

*Page 746.*

**HALESIDOTA ATOMOSA.**

*Var.* Head, thorax and fore wings pale luteous. Fore wings with numerous and various brown flecks, which form indistinct slightly undulating and very oblique bands.

Brazil. In Mr. Saunders' collection.

**HALESIDOTA FLAVESCENS.**

*Mas.* *Flava*; *palpi apice fuscescentes*; *antennæ fuscæ, basi flavae*; *pedes albido-testacei, tibiæ et metatarsi antici apice genuaque fusca*; *femora antica supra fuscescentia*; *tibiæ anteriores fusco guttatæ*; *alæ posticæ albidæ, fusco marginatæ*.

*Male.* Yellow. Proboscis testaceous. Palpi brownish towards the tips. Antennæ brown, yellow at the base. Legs whitish testaceous; knees and tips of the tibiæ and of the fore metatarsi brown; fore femora brownish above; anterior tibiæ with a brown dot on each. Hind wings whitish, with pale brownish borders. Length of the body 5 lines; of the wings 12 lines.

Parà. In Mr. Saunders' collection.

### HALESIDOTA APICALIS.

Mas. *Testacea; caput antice fuscum; palpi et antennæ fuscescentia; abdomen postice rufum, apice nigrum; pedes fusco varii; alæ semihyalinæ, antice striga obliqua discali nigricante.*

*Male.* Testaceous. Head brown in front. Proboscis, palpi and antennæ brownish. Abdomen red towards the tip, which is black. Fore tibiæ and anterior tarsi brown; posterior tibiæ with brown tips; hind tarsi brown towards the tips. Wings semihyaline. Fore wings with an oblique blackish streak at the tip of the discal areolet. Length of the body  $4\frac{1}{2}$  lines; of the wings 13 lines.  
Brazil. In Mr. Saunders' collection.

### HALESIDOTA DISCALIS.

Mas. *Albido-flava; caput rufo bifasciatum; antennæ fulvæ; abdomen album; pedes albi, antici rufi; alæ albido vitreæ, antice rufo ex parte subreticulatae.*

*Male.* Whitish yellow. Head with a red band in front and another behind. Palpi red above. Antennæ tawny, with testaceous branches. Abdomen and legs white. Fore legs red. Wings whitish vitreous. Fore wings slightly and imperfectly reticulated with red, except on a large space in the disk. Length of the body  $3\frac{1}{2}$  lines; of the wings 10 lines.

Valley of the Amazon. In Mr. Saunders' collection.

### HALESIDOTA CATENATA.

Fœm. *Fusca; caput luteum; thorax luteo maculatus; abdomen basi et apice supra luteum, subtus e maculis luteis bivittatum; alæ antice albidae fasciis quatuor obliquis luteis fusco marginatis, venis fuscis; posticæ fuscæ, apud discum albidæ.*

*Female.* Brown, like *H. histrionica* in structure. Head mostly luteous. Thorax with several luteous spots. Abdomen luteous at the base and towards the tip above; under side with luteous spots along each side. Fore wings whitish, with brown veins, and with four irregular luteous oblique bands, which are bordered with brown. Hind wings brown, partly whitish in the disk. Length of the body 9 lines; of the wings 25 lines.

South America. In Mr. Saunders' collection.

## HALESIDOTA CORTICEA.

Fœm. *Viridi-fusca*; *palpi nigro vittati*; *abdomen luteum, maculis lateralibus nigris*; *tibiae tarsique fusco fasciata*; *alæ anticæ pallide testacea, fusco conspersæ, venis nigro fasciatæ; posticæ pallide cinereæ*.

*Female.* Greenish brown, much like *H. basipennis* in structure. Proboscis tawny. Palpi striped with black. Antennæ pale brown. Abdomen dull luteous, with a row of black spots along each side. Tibiae and tarsi with brown bands. Fore wings pale testaceous, mostly thickly covered with brown flecks, which are frequently confluent, the intermediate parts forming slight undulating bands; veins with black bands. Hind wings pale cinereous. Length of the body 7 lines; of the wings 22 lines.

Venezuela. In Mr. Saunders' collection.

## HALESIDOTA SEMIVARIA.

Mas et fœm. *Testacea; caput et palpi nigro fasciata; thoracis discus fuscus testaceo maculatus, latera testacea ocellis fuscis; abdomen supra nigrum, maculis lateralibus apiceque rufis, subtus pallide testaceum fusco univittatum; pedes fusco fasciati, coxis femoribusque ex parte rufis; alæ anticæ fuscæ, apud costam testacea ocellis fuscis*. Mas.—*Alæ posticæ albidae, apice fuscæ*. Fœm.—*Alæ posticæ obscure fuscæ*.

*Male and female.* Testaceous. Head and palpi with black bands. Proboscis tawny. Antennæ black. Disk of the thorax brown, with testaceous spots; sides testaceous, with brown ringlets. Abdomen above black, with bright red spots along each side; tip red; under side pale testaceous, with a brown stripe. Legs with brown bands; coxae and femora partly red. Fore wings brown, testaceous and with brown ringlets along the costa. *Male*.—Hind wings whitish, with brown tips. *Female*.—Red abdominal spots confluent. Hind wings dark brown; ciliæ partly testaceous. Length of the body 6—7 lines; of the wings 16—18 lines.

Brazil. In Mr. Saunders' collection.

## HALESIDOTA BASIPENNIS.

Fœm. *Obscure fusca; palpi nigricantes; abdomen supra luteum, e maculis nigris bivittatum; alæ anticæ gutta discali testacea, posticæ basi testacea*.

*Female.* Dark brown. Proboscis tawny. Palpi and antennæ blackish. Abdomen above lutéous, with two rows of black spots. Fore wings with a testaceous dot at the tip of the discal areolet. Hind wings testaceous towards the base. Length of the body 7 lines; of the wings 22 lines.

This species differs somewhat from the typical form of *Halesidota*; the palpi are longer, the third inferior vein of the fore wings is further from the second, and the fourth is much further from the third. In the length of the spurs of the hind tibiae it is between *H. tessellaris* and *H. histrionica*, and has some resemblance to the genus *Opharus*, from which it is distinguished by the shortness of the terminal joint of the palpi.

Parà. In Mr. Saunders' collection.

#### HALESIDOTA SEMIRUFA.

Fœm. *Luteo-testacea, subtus albida; abdomen supra rufum, lateribus albis; alæ anticæ pallide testacea, rufo punctatae, cervino guttatae et bifasciatæ, fascia exteriore angulata; posticæ rufæ.*

*Female.* Luteous-testaceous, whitish beneath. Abdomen red above, white along each side. Fore wings pale testaceous, with numerous red points, and with two slender irregular oblique pale fawn-coloured bands, between which there are some fawn-coloured dots; outer band angular. Hind wings red, pale testaceous along the costa, and with testaceous ciliæ. Length of the body 10 lines; of the wings 24 lines.

Parà. In Mr. Saunders' collection.

#### HALESIDOTA ANTICA.

Mas. *Cinereo-fusca; caput fascia postica rufa; palpi nigri, subtus lutei; pectus rufo bivittatum; abdomen supra rufum, apice testaceum, maculis lateralibus fasciisque nigris; coxæ anticæ rufo vittatae; femora antica basi rufa; alæ anticæ apud costam testacea; posticæ obscuriores.*

*Male.* Cinereous-brown. Head with a red band along the hind border. Proboscis tawny. Palpi black, luteous beneath. Antennæ black. Pectus with a red stripe along each side. Abdomen red above, testaceous at the tip; a black band on each segment, and a row of black spots along each side. Fore coxæ striped

with red; fore femora red at the base. Wings with whitish ciliæ; fore wings testaceous along the costa; hind wings a little darker than the fore wings. Length of the body 7 lines; of the wings 18 lines.

Vera Cruz. In Mr. Saunders' collection.

#### HALESIDOTA NIVEIGUTTA.

Mas et fœm. *Testacea; thorax fusco bivittatus; alæ anticæ lineis nonnullis obliquis undulosis fulvis, fasciis duabus fuscis guttaque exteriore nigro-fusca; posticæ albæ.* Mas.—*Abdomen apice album.*

*Male and female.* Testaceous, paler beneath. Thorax with two pale brown stripes. Fore wings with several oblique undulating tawny lines, with two oblique brown bands, and with an exterior blackish brown dot; first band curved, irregular; second straight. Hind wings white. *Male.*—Antennæ nearly as long as the body. Abdomen white at the tip. Length of the body 4—7 lines; of the wings 12—18 lines.

Colombia and Brazil. In Mr. Saunders' collection.

#### HALESIDOTA BINOTATA.

Fœm. *Pallide rufa; antennæ nigræ, graciles, subsetosæ; alæ anticæ acuminatae, fusco subnebulosæ, striga postica basali guttaque discali luteis; posticæ pallidissime rufæ, basi vitreæ.*

*Female.* Pale red. Palpi rather shorter than usual. Antennæ black, slender, very minutely setose, nearly twice the length of the thorax. Fore wings very slightly convex in front, somewhat acuminated at the tips, very oblique along the exterior border, very minutely mottled with brown, with a luteous mark at the base of the interior border, and with a luteous dot at the tip of the discal areolet. Hind wings very pale red, vitreous towards the base. Length of the body 9 lines; of the wings 20 lines.

Brazil. In Mr. Saunders' collection.

#### HALESIDOTA DISCIPLAGA.

Mas. *Pallide fusca; palpi et antennæ nigricantia; thorax apud marginem anticum pallide luteus; abdomen supra pallide luteum, disco medio nigricante; posticæ albidae, semihyalinæ, fusco marginatae.*

*Male.* Pale brown. Proboscis tawny. Palpi and antennæ blackish. Thorax pale luteous on the fore border. Abdomen pale luteous above; disk in the middle blackish. Hind wings whitish, semihyaline, pale brown at the tips and along the exterior border, testaceous along the interior border. Length of the body 7 lines; of the wings 20 lines.

Brazil. In Mr. Saunders' collection.

#### HALESIDOTA CINGULATA.

Mas et fœm. *Rufa*; *abdomen fasciis nigris basi interruptis*; *alæ anticæ cinereo confertim nebulosæ, posticæ pallidiores*.  
*Mas.*—*Palpi apice fuscæ*. *Fœm.*—*Palpi apice nigri*; *thoracis discus fuscescens*.

*Male and female.* Red. Abdomen with black bands, which are interrupted towards the base. Fore wings thickly mottled with indistinct gray marks. Hind wings a little paler than the fore wings. *Male*.—Palpi with brown tips. *Female*.—Palpi with black tips. Disk of the thorax slightly brownish. Length of the body 9—13 lines; of the wings 26—34 lines.

Jamaica and Brazil. In Mr. Saunders' collection.

#### HALESIDOTA? LUTOSA.

*Lutea*; *thorax viridi bivittatus*; *alæ anticæ cinereæ, fascia lata obliqua alba*; *posticæ albæ cinereo marginatae*. *Mas.*—*Abdomen cinereum, apice luteum*. *Fœm.*—*Abdominis latera cinerea*; *alæ anticæ litura obliqua discali cinerea*.

*Empusa lutosa*, *Hübn. Samml. Exot. Schmett.* ii. *Lep.* iii. *Phal.* ii.  
*Veræ*, vii. *Hypocritæ A. Sphingiformes*, 2, f. 1—4; *Verz. Schmett.* 170, 1749.

Page 751.

#### 2. AMBRYLLIS NEUROPHYLLA.

*Fœm.* *Cervina*; *caput anticum, palpi antennæque atra*; *pedes nigricantes*; *alæ semihyalinæ, anticæ maculis quatuor costalibus strigisque transversis posterioribus nigris*.

*Phægoptera neurophylla*, *MSS.*

*Female.* Fawn-colour. Head in front, palpi and antennæ deep black, the latter serrated. Legs blackish. Fore wings semi-hyaline, with four black costal spots; first spot nearly joining a

hind curved transverse streak; second and third also nearly contiguous to two streaks, which are united in front; fourth spot with some submarginal blackish streaks along the veins behind it. Hind wings with the fawn-colour and black marks almost obliterated in the specimen described. Length of the body 8 lines; of the wings 20 lines.

Venezuela. In Mr. Saunders' collection.

*Page 752.*

SCIATHOS PUNCTIGER.

*Bombyx tricolora*, *Fabr. Ent. Syst.* iii. 1, 432, 77.

*Trosis tricolora*, *Hüb. Verz. Schmett.* 196, 2008.

Cayenne.

*Page 761.*

PINARA CANA.

*Var.* Gray. Fore wings brownish in front. Hind wings grayish brown.

*m.* Sidney. From Mr. Lambert's collection.

*Page 775.*

Genus MINARA.

*Mas.* Corpus cylindricum, vix robustum. Proboscis brevisima. Palpi porrecti, caput paullo superantes; articulus 3us conicus, parvus. Antennæ subpectinatæ, thorace paullo longiores. Abdomen alas posticas triente superans. Pedes sat validi; tibiæ posticæ calcaribus quatuor longiusculis. Alæ vix latæ; antice apud costam rectæ, apice rotundatæ, margine exteriore sat obliquo vix convexo.

*Male.* Body cylindrical, hardly stout. Proboscis very short. Palpi porrect, extending a little beyond the head; third joint conical, not more than one-fourth of the length of the second. Antennæ slightly pectinated, a little longer than the thorax. Abdomen extending for one-third of its length beyond the hind wings. Legs moderately stout; hind tibiæ with four rather long spurs. Wings hardly broad. Fore wings straight in front, rounded at the tips, rather oblique and very slightly convex along the interior border; second inferior vein about twice further from the third than from the first.

This genus is very distinct from *Arctia*, with which the Synopsis, p. 586, associates it.

### 1. MINARA PARDALINA.

*Mas.* *Nigro-fusca*; *proboscis et antennæ fulva*; *palpi nigri*; *thorax fasciculis duabus lateralibus pallide testaceis*; *abdominis segmenta testaceo fasciata*; *pedes ex parte testacei*; *alæ anticæ pallide cervinæ, maculis basalibus, strigis exterioribus guttisque marginalibus nigris*; *posticæ subtus pallidiores*.

*Male.* Blackish brown. Proboscis and antennæ tawny. Palpi black. Thorax with a tuft of long pale testaceous hairs on each side. Abdomen with a testaceous band on the hind border of each segment. Legs partly testaceous. Fore wings pale fawn-colour, with irregular black spots on half the length from the base, and with black streaks on the exterior half; a row of black dots along the exterior border. Hind wings paler beneath. Length of the body 7—8 lines; of the wings 18 lines.

Brazil. In Mr. Saunders' collection.

### Genus MASSICYTA.

*Mas.* *Corpus robustum. Proboscis non conspicua. Palpi caput superantes; articulus 3us elongatus, acuminatus, 2o brevior. Antennæ subpectinatæ, thorace longiores. Abdomen alas posticas non superans. Pedes validi; tibiæ posticæ calcaribus duobus apicalibus parvis. Alæ latiusculæ; anticæ apud costam vix convexæ, apice rotundatæ, margine exteriore mediocriter obliquæ.*

*Male.* Body stout. Proboscis not visible. Palpi extending somewhat beyond the head; third joint elongate, acuminated, shorter than the second. Antennæ minutely pectinated, rather longer than the thorax. Abdomen extending as far as the hind wings. Legs stout; hind tibiæ with two short apical spurs. Wings rather broad. Fore wings hardly convex in front, rounded at the tips, moderately oblique along the exterior border; second inferior vein as near to the third as to the first; third almost six times further from the fourth than from the second.

### 1. MASSICYTA FUSCA.

*Mas.* *Fusca; antennæ testacea; abdomen vittis lateralibus apiceque luteis; alæ testaceo conspersæ; anticæ litura discali angulata; posticæ apud discum cinereæ.*

*Male.* Brown. Antennæ testaceous. Abdomen dull luteous along each side and at the tip. Wings thickly covered with testaceous flecks. Fore wings with an angular black mark at the tip of the discal areolet. Hind wings grayish, except towards the borders. Length of the body 7—8 lines; of the wings 22 lines.

*a, b.* Brazil. From Mr. Stevens' collection.

### Genus *ŒNOSANDA*.

*Mas et fœm.* Corpus robustum. Proboscis non conspicua. Palpi brevissimi. Antennæ simplices, thorace multo longiores. Thorax dense lanuginosus. Abdomen alas posticas non superans. Pedes validi, pilosi; tibiæ posticæ calcaribus duobus parvis apicalibus. Alæ longiusculæ, mediocriter latæ; anticæ vix acuminatæ, apud costam rectæ, margine exteriore perobliquo.

*Male and female.* Body stout. Proboscis not visible. Palpi very short. Antennæ simple, much longer than the thorax. Thorax thickly clothed with woolly hairs. Abdomen extending about as far as the hind wings. Legs stout, pilose; hind tibiæ with two short apical spurs. Wings rather long, moderately broad. Fore wings straight in front, hardly acuminated, very oblique along the exterior border; three inferior veins; first and second nearly contiguous at the base; third remote.

#### 1. *ŒNOSANDA DUPONCHELII.*

*Mas et fœm.* *Alba; caput nigro guttatum; pectus fuscum; abdomen nigrum, fasciis dorsalibus luteis; pedes nigri, tarsis albo fasciatis; alæ anticæ costa nigra, vittaque discali nigra albo luteoque varia.*

*Œnosandra Duponchelii, Newman, Trans. Ent. Soc. London, 1856.*

*Male and female.* White. Head with a black dot in front. Antennæ black. Pectus brown. Abdomen black, with luteous dorsal bands. Legs black; tarsi with white bands. Fore wings with a black costa, and with a black discal stripe, which extends along the whole length and is more or less varied with white, and is covered with luteous speckles. Length of the body 6—7 lines; of the wings 20—26 lines.

- a.* Australia. Presented by Major-Gen. Hardwicke.
- b.* Swan River. Presented by Sir J. Richardson.
- c.* Tasmania. Presented by Morton Allport, Esq.
- d.* Australia. Presented by the late Earl of Derby.
- e.* Tasmania. Presented by J. G. Children, Esq.

## Genus PODALIA.

## Group 1.

*Fœm.* Corpus crassum. Proboscis non conspicua. Palpi brevissimi. Antennæ vix pectinatæ. Abdomen apice dense lanuginosum, alas posticas vix superans. Pedes validi; tibiæ posticæ calcaribus duobus minutis apicalibus. Alæ longiusculæ, mediocriter latæ; anticæ apud costam vix convexæ, apice rotundatæ, margine exteriore perobliquo.

*Female.* Body thick. Proboscis not visible. Palpi very short. Antennæ setaceous, very minutely pectinated, a little longer than the thorax. Abdomen thickly lanuginose at the tip, hardly extending beyond the hind wings. Legs stout; hind tibiæ with two minute apical spurs. Wings rather long, moderately broad. Fore wings very slightly convex in front, rounded at the tips, extremely oblique along the exterior border; second inferior vein about twice further from the third than from the first; third much further from the fourth than from the second.

## 1. PODALIA VESTA.

*Fœm.* *Alba;* thorax fascia una integra nigra alteraque interrupta fusca; abdomen fusco fasciatum; pedes ex parte nigri; alæ anticæ fasciis duabus diffusis, maculis discalibus guttisque marginalibus fuscis; posticæ pallide fuscae, apud marginem exteriorem albæ fusco maculatae.

Bombyx Vesta, MSS.

*Female.* White. Antennæ with black branches. Thorax with an entire black band and an interrupted brown band. Abdomen with brown bands. Legs mostly black. Fore wings with two diffuse brown bands, and some discal brown spots; a row of semi-circular brown spots along the exterior border. Hind wings pale brown, white towards the exterior border, which has spots like the fore wings. Length of the body 15 lines; of the wings 44 lines.

Brazil. In Mr. Saunders' collection.

## Group 2.

*Mas.* Corpus crassum. Caput subporrectum. Palpi brevissimi. Antennæ latissime pectinatæ, basi approximatæ. Abdomen alas posticas paullo superans. Pedes validi, pilis longis densissime vestiti. Alæ mediocriter latæ; anticæ subacuminatæ, apices versus

angustæ, margine exteriore perobliquo. *Fœm.*—Antennæ subpectinatæ. Abdomen apice densissime fasciculatum.

*Male.* Body thick. Head prominent in front. Proboscis not visible. Palpi very short. Antennæ very deeply pectinated, approximate at the base. Abdomen extending a little beyond the hind wings. Legs stout, thickly clothed with long hairs; hind tibiæ with minute apical spurs. Wings moderately broad. Fore wings mostly straight in front, narrow towards their tips, which are slightly acuminate; exterior border very oblique; second inferior vein full twice further from the third than from the first; third much nearer to the fourth than to the second. Hind wings with the costal membrane more or less dilated towards the base; discal areolet broad, distinctly divided by a genuine vein. Frenulum distinct. *Female.*—Antennæ minutely pectinated. Abdomen very thickly tufted at its tip.

This group in several characters resembles the *Bombycites*, in which the wings have no frenulum.

## 2. PODALIA CITRI.

*Mas.* *Fusca*; *caput supra roseum*; *thorax maculis roseis*; *abdomen roseo fasciatum*; *pedes posteriores ex parte roseo hirti*; *alæ albidæ, basi subroseæ, antice fusco strigatae, fascia postiore maculaque discali obscurioribus*; *posticæ apud venas fusco substrigatae*.

*Phalæna-Bombyx Citri, Anon. Ins. Surinam*, i. 31, pl. 12.

*Male.* Brown. Head rosy above. Antennæ whitish, about one-fifth of the length of the body. Thorax with several rosy spots. Abdomen above with rosy bands. Posterior legs partly clothed with rosy hairs. Wings whitish, with a rosy tinge at the base. Fore wings streaked with brown, which forms cuneiform marks along the exterior border; a short posterior band at one-third of the length and a spot at the tip of the discal areolet darker brown. Hind wings with slight brown streaks along the veins; costal membrane much dilated. Length of the body 9—11 lines; of the wings 22—26 lines.

*Fœm.* *Nigro-fusca*; *caput macula rosea, antice testaceum*; *thorax roseo biguttatus*; *abdomen fasciis dorsalibus roseis, antice albidum*; *pedes ex parte roseo hirti, alæ albidæ, fusco variæ; antice basi nigro-fuscæ*.

*Female.* Blackish brown. Head testaceous in front, and with a rosy disk above. Antennæ whitish, about one-fifth of the length of the body. Thorax with a rosy dot on each side. Abdomen above with rosy bands; tip whitish. Legs partly clothed with rosy hairs. Wings like those of the male. Fore wings with the brown band more interrupted; the cuneiform marks less distinct; base blackish brown. Length of the body 15 lines; of the wings 36 lines.

a. Rio Janeiro. From Mr. Stevens' collection.

b, c. —? Presented by E. Doubleday, Esq.

d. —?

The larva feeds on the leaves of the orange (*Citrus Aurantium*). It is nearly related to *Alpis xanthopasa*, p. 1095, which may be one of the *Limacodidae*. *Cerura Orsilochus*, p. 988, may belong to this genus.

### 3. PODALIA FUSCESCENS.

Mas. *Fusca; caput supra pallide roseum; antennæ albidae; thorax maculis nonnullis pallide roseis aut testaceis; abdomen maculis aut fasciis apiceque testaceis; pedes ex parte testaceo aut roseo hirti; alæ anticæ pallide fuscæ fascia obscuriore, antice albidae, strigis basim versus albidis et obscure fuscis, strigis exterioribus cuneatis obscure fuscis albido marginatis, maculis submarginalibus albidis; posticæ obscure fuscæ.*

*Male.* Brown. Head pale rosy above. Antennæ whitish, full one-third of the length of the body. Thorax with some pale rosy or testaceous spots. Abdomen with testaceous bands or dorsal spots; tip testaceous. Legs partly clothed with testaceous or pale rosy hairs. Fore wings pale brown, with a darker brown middle oblique band, which is interrupted in front and dilated hindward; anterior half mostly whitish; some undulating occasionally indistinct whitish and dark brown streaks towards the base; a row of cuneiform dark brown whitish-bordered marks at some distance from the exterior border, along which there is a row of whitish spots; a ferruginous brown stripe along the interior border. Hind wings dark brown; costal membrane slightly dilated. Length of the body 12—14 lines; of the wings 30—36 lines.

a. Rio Janeiro. From Mr. Stevens' collection.

b. Brazil. From M. Becker's collection.

c. —?

**Fœm.?** *Fusca ; caput et thorax anticus obscure fusca ; thorax albo fasciatus ; abdomen fasciis albis, apice cervinum ; alæ antice basi et apud costam dense lanuginosæ, costa, fascia obliqua maculisque exterioribus cuneatis albidis, fascia obliqua obscure fusca ; posticæ pallide fuscae, strigis inter venas albidis.*

**Female?** Brown. Head and fore border of the thorax dark brown. Antennæ whitish, full one-third of the length of the body. Thorax with a white band in front. Abdomen with white bands, fawn-coloured at the tip. Fore wings from the base to the middle and along the costa thickly clothed with crispy woolly hairs, whitish along the costa, and with a diffuse oblique whitish band beyond the middle, and with a row of whitish cuneiform spots between it and the exterior border; a dark brown oblique band before the middle, interrupted in front, dilated behind, and with two small dark brown marks in front between it and the exterior border. Hind wings pale brown, with whitish streaks between the veins along the exterior border. Length of the body 9 lines; of the wings 24 lines.

a. Rio Janeiro. From Mr. Stevens' collection.

#### 4. PODALIA DORSIMACULA.

*Alba ; caput antice palpique fusca ; thorax e maculis fuscis quadrifasciatus ; abdomen fasciis dorsalibus fuscis ; alæ fuscae, antice basi albo variae, fascia ramosa strigisque exterioribus albis ; posticæ apud marginem exteriorem albidæ fusco maculatae.*

**Male.** White. Head in front and palpi brown. Antennæ with brown branches. Thorax with four bands of brown spots. Abdomen with brown dorsal bands. Wings brown. Fore wings marked with white at the base, with a diffuse ramose oblique white band beyond the middle, and with white cuneiform streaks along the exterior border. Exterior border of the hind wings whitish, with brown spots. Length of the body 13 lines; of the wings 28 lines.

a. —? From Mr. Children's collection.

#### Genus DECIMIA.

**Mas.** Corpus robustum. Caput et thorax pilosissima. Proboscis non conspicua. Palpi breviusculi ; articulus 3us minimus.

Antennæ validæ, late pectinatæ. Abdomen alas posticas longe superans. Pedes validi; tibiæ posticæ calcaribus duobus apicalibus mediocriter longis. Alæ angustæ; anticæ longiusculæ, apud costam rectæ, apice rotundatæ, margine exteriore perobliquo; posticæ breviusculæ.

*Male.* Body stout. Head and thorax very hairy. Palpi rather short; third joint very small. Antennæ stout, deeply pectinated, about half the length of the body. Abdomen rather long, tapering from near the base to the tip. Legs stout; hind tibiæ with two moderately long apical spurs. Wings narrow. Fore wings very much longer than the hind wings, straight in front, rounded at the tips, very oblique along the exterior border; first, second and third inferior vein nearly contiguous at the base; fourth more than twice further from the third than the third is from the first. Hind wings extending to nearly half the length of the abdomen.

The Synopsis, p. 586, includes this genus with *Sciathos*, from which it is distinguished by the preceding characters. It is somewhat allied to *Antheua*.

#### 1. DECIMIA BICOLORA.

Mas. *Fusca; caput, thorax, pectus, abdominis fasciæ pedesque lutea; alæ cinereo-fuscæ, apud costam luteæ.*

*Male.* Brown. Head, thorax, pectus, fore borders of the abdominal segments and legs thickly clothed with luteous hairs. Antennæ testaceous above. Wings grayish brown, slightly hyaline; costa luteous; ciliæ testaceous. Hind wings rather paler than the fore wings. Length of the body 8—9 lines; of the wings 14—16 lines.

*Var. β.* Wings towards the base and fore wings along the costa luteous.

- a. South Africa. Presented by Dr. A. Smith.
- b. Port Natal. From Mr. Stevens' collection.

#### Genus ARCHYLUS.

*Mas.* Corpus sublineare, subcylindricum, mediocriter longum et robustum. Palpi brevissimi. Antennæ subtus serratæ aut subpectinatæ. Pedes graciles; tibiæ posticæ calcaribus nullis. Alæ latæ; anticæ apud costam vix convexæ, apice rotundatæ, margine exteriore sat obliquo; posticæ abdomen vix superantes.

Allied to *Norape*. *Male*.—Body nearly linear and cylindrical, moderately long and stout. Proboscis and palpi very short. Antennæ serrated or very minutely pectinated beneath. Abdomen extending almost as far as the hind wings. Legs slender; hind tibiæ without spurs. Wings broad. Fore wings hardly convex in front, rounded at the tips, rather oblique along the exterior border; discal fold distinct; second inferior vein nearer to the first than to the third; third hardly nearer to the second than to the fourth. Hind wings straight in front; the four inferior veins near together.

### 1. ARCHYLUS GUTTIFASCIA.

*Mas.* *Argenteo-albus*; *caput ex maxima parte nigrum*; *antennæ nigræ*; *abdomen fasciis luteis*; *pedes fusco vittati*; *tarsis fuscis*; *alæ anticæ e guttis nigris oblique fasciatæ, guttaque basali nigra*.

*Male*. Silvery white. Head mostly black. Antennæ black. Abdomen with luteous bands. Legs with brown stripes; tarsi wholly brown. Fore wings with a black dot near the inner border toward the base, and with an oblique band composed of twelve black dots. Length of the body 4 lines; of the wings 14 lines.

*a.* Tapayos, Brazil. From Mr. Bates' collection.

### Genus ANACE.

*Mas.* Corpus gracile. Palpi graciles, porrecti, caput paullo superantes; articulus 3us conicus, minimus. Antennæ late pectinatae, apices versus subpectinatae. Abdomen alas posticas longe superans. Pedes sat graciles; tibiæ posticæ calcaribus duobus apicalibus parvis. Alæ angustæ; anticæ longiusculæ, apud costam rectæ, apice rotundatae, margine exteriore perobliquo.

*Male*. Body slender. Palpi slender, porrect, not long, extending a little beyond the head; second joint much longer than the first; third conical, very minute. Antennæ rather more than half the length of the body, deeply pectinated for two-thirds of the length, where the branches become abruptly shorter. Legs rather slender; hind tibiæ with two small apical spurs. Wings narrow. Fore wings very much longer than the hind wings; first and second inferior veins springing from a long common petiole; fourth about twice further from the third than the third is from the second. Hind wings extending to a little beyond half the length of the abdomen.

### 1. ANACE PERPUSILLA.

*Testacea; palpi et pedes rufi; antennæ fuscæ; alæ cervinæ, anticae e maculis albis hyalinis bifasciatæ, posticæ discis albidis.*

*Male.* Testaceous. Palpi pale red. Antennæ brown. Abdomen pale red at the tip. Legs pale red. Wings fawn-colour. Fore wings with two oblique bands of white hyaline spots; the first band composed of three spots, the middle one much smaller than either of the other two; the second of four spots, the third from the fore border very small. Hind wings with whitish disks. Length of the body  $4\frac{1}{2}$  lines; of the wings 11 lines.

a. ——? Presented by E. Doubleday, Esq.

### 2. ANACE? INVARIA.

*Fœm.* Pallide rufa; palpi brevissimi; antennæ subpectinatae; abdomen alas posticas plus dimidio superans; pedes gracilimi; tibiæ posticæ calcaribus apicalibus minimis; alæ anticae perangustæ, litura discali obscura.

*Female.* Pale red. Proboscis not visible. Palpi very short. Antennæ very minutely pectinated, much longer than the thorax. Abdomen extending for more than half its length beyond the hind wings. Legs very slender; hind tibiæ with two very minute apical spurs. Wings very narrow, like those of *A. perpusilla* in structure. Fore wings with a dark mark at the tip of the discal areolet. Length of the body 7 lines; of the wings 12 lines.

a. West Africa. From Mr. Fraser's collection.

### 3. ANACE RUBRA.

*Mas.* Rufa; proboscis brevissima, conspicua; palpi breves; antennæ late pectinatae; abdomen alas posticas dimidio superans; pedes validi; tibiæ posticæ calcaribus duobus longis apicalibus; alæ longiusculæ, sat angustæ; anticæ apud costam subconvexæ, apice rotundatae, margine exteriore perobliquo.

*Male.* Red, which is brighter on the head and thorax than elsewhere. Proboscis very short, but distinct. Palpi short; third joint conical, acute. Antennæ black, deeply pectinated. Abdomen extending for about half its length beyond the abdomen. Legs stout; hind tibiæ with two long apical spurs. Wings rather long and narrow. Fore wings straight in front, rounded at the tips, very oblique along the exterior border; first and second inferior

veins united at the base; third near the second, and more than twice further from the fourth. Length of the body 9—10 lines; of the wings 19—22 lines.

*a.* Cape. From M. Dregé's collection.

*b.* Port Natal. From M. Gueinzius' collection.

### Genus BALACRA.

*Fæm.* Corpus robustum, cylindricum, longissimum. Palpi brevissimi; articulus 3us conicus, minimus. Antennæ simplices, corporis dimidio breviore. Abdomen alas posticas longissime superans. Pedes sat validi; tibiæ posticæ calcaribus duobus apicalibus parvis. Alæ anticae longæ, angustæ, apud costam rectæ, apice rotundatae, margine exteriore perobliquo; posticæ breves, antice dilatatae.

*Female.* Body stout, cylindrical, very long. Palpi very short; third joint conical, very minute. Antennæ simple, less than half the length of the body. Abdomen extending very far beyond the hind wings. Legs rather short; hind tibiæ with two minute apical spurs. Fore wings long and narrow; discal fold very distinct; first and second inferior veins contiguous at the base; submedian vein undulating. Hind wings short, dilated in front; first and second inferior veins united at the base; third much nearer to the second than to the fourth.

#### 1. BALACRA CÆRULEIFASCIA.

*Fæm.* *Læte rufa;* *caput fusco fasciatum;* *palpi apice nigri;* *antennæ nigræ;* *thorax fascia antica vittisque tribus fuscis;* *abdomen fasciis nigro-cyaneis;* *tibiæ supra tarsique nigricantia;* *alæ anticae rufo-cervinæ,* *guttis basalibus læte rufis maculisque sex limpidis;* *posticæ pallide rufæ.*

*Female.* Bright red. Head with a brown band between the antennæ. Palpi with black tips. Antennæ black. Thorax with a brown band in front and with three brown stripes. Abdominal segments with blackish blue bands. Tibiæ above and tarsi blackish. Fore wings reddish fawn-colour, with three bright red marks at the base, and with six limpid spots, one on the discal areolet, one in front of the first superior vein, one on the discal fold beyond the areolet, one in front of the second inferior vein, one in front of the third inferior vein, and one between the fourth inferior vein and the submedian vein; third inferior vein as near to the fourth as to the

second; under side towards the base and hind wings pale red. Length of the body  $9\frac{1}{2}$  lines; of the wings 24 lines.

a. ——? Presented by E. Doubleday, Esq.

## 2. BALACRA FLAVIMACULA.

Fœm. *Rufa; alæ anticæ sordide rufescentes, basi et apud venas cinereæ, maculis tribus flavis rufo marginatis; posticæ pallidiores.*

*Female.* Red. Palpi and legs red. Fore wings dull reddish, gray towards the base and along the veins, with two red marks at the base, and with three red-bordered yellow spots, the first large, on the disk at one-third of the length; the second small, on the discal areolet; the third on the disk beyond; third inferior vein much nearer to the second than to the fourth. Hind wings unspotted, rather paler than the fore wings. Length of the body 6 lines; of the wings 18 lines.

a. Ashanti. From the Wesleyan Missionary Society's collection.

## Genus PLATEIA.

*Mas.* Corpus sat gracile. Antennæ late pectinatæ. Abdomen alas posticas non superans. Alæ latæ; anticæ apud costam subrectæ, apice rotundatae, margine exteriore sat obliquo.

Plateia, Hübn. Verz. Schmett. 187.

## PLATEIA EBALUS.

*Mas. Lutea; abdomen fasciis albis, disco nigro; alæ roseæ; anticæ fasciis duabus obliquis pallidioribus, posticæ pallide roseæ, margine obscuriore.*

Phalæna-Bombyx Ebalus, Cram. Pap. Exot. i. 79, pl. 50, f. G.

Plateia Ebale, Hübn. Verz. Schmett. 187, 1932.

Surinam.

## Genus HEBENA.

*Fœm.* Corpus robustum. Proboscis non conspicua. Palpi brevissimi. Antennæ subpectinatæ, thorace multo longiores. Abdomen alas posticas dimidio superans. Pedes validi; tibiæ posticæ calcaribus duobus mediocriter longis. Alæ sat latæ; anticæ apud costam subrectæ, apice rotundatae, margine exteriore perobliquo.

*Female.* Body stout. Proboscis not visible. Palpi very short. Antennæ very minutely pectinated, much longer than the thorax. Abdomen extending for half its length beyond the hind wings. Legs stout; hind tibiæ with two moderately long apical spurs. Wings moderately broad. Fore wings almost straight in front, rounded at the tips, very oblique along the exterior border; first and second inferior veins united at the base; third rather nearer to the second than to the fourth.

### 1. HEBENA VENOSA.

Fœm. *Rufa; antennæ nigrae; pedes ex parte nigri; alæ anticæ supra nigricantes, venis rufo marginatis; posticæ pallidissime rufæ.*

*Female.* Red. Antennæ black. Legs mostly black. Fore wings blackish above; veins red and with red borders. Hind wings very pale red. Length of the body 9 lines; of the wings 22 lines. Port Natal. In Mr. Saunders' collection.

### Page 778.

<i>For</i>	ii.	Alæ angustæ	-	-	-	-	15. AMSACTA.
		† Pedes graciles	-	-	-	-	9. ACYPHAS.
<i>Read</i>	†††	Pedes sat validi	-	-	-	-	9. ACYPHAS.
	ii.	Alæ angustæ	-	-	-	-	15. AMSACTA.

### Page 780.

† Alæ dense vestitæ.

‡ Abdomen non lanuginosum. - - - 8. CHARNIDA.

‡‡ Abdomen lanuginosum. - - - 40. EUPROCTIS.

†† Alæ parum vestitæ - - - - 39. LEUCOMA.

b. Corpus sat gracile, &c.

These lines to be substituted for the corresponding lines in the above page, and the line "i. Antennæ maris latissime pectinatae," to be cancelled.

### Page 786.

#### ORGYIA LEUCOGRAPHA.

Mas. *Obscure fusca; alæ anticæ pallidiores, striga subbasali, macula costali ante apicali, fasciisque duabus, 1a lata ante media, 2a angusta arcuata postmedia, nigro-fuscis, macula postica alba.* Fœm.—*Aptera.*

*Cladophora leucographa, (Phalæna Vera, Dasychira colorata),  
Geyer, Zeitr. Samml. Exot. Schmett. 33, 373, f. 745, 746.*

Georgia.

Page 800.

REPENA INVARIA.

Mas. *Fuscescens*; *palpi crassi, caput longe superantes; antennæ latissime pectinatæ, pedes graciles; alæ anticae nubeculosæ, lineis transversis obliquis subundulosis nigricantibus; posticæ obscuriores.*

*Male.* Brownish. Palpi very stout, extending beyond the head. Antennæ very deeply pectinated. Legs slender. Fore wings slightly mottled, with indistinct slender oblique somewhat undulating blackish bands. Hind wings darker than the fore wings. Length of the body  $5\frac{1}{2}$  lines; of the wings 14 lines.

a. Philippine Islands. From Mr. Cuming's collection.

Genus REPENA?

Mas. Corpus gracile. Palpi porrecti, subitus hirsutissimi; articulus 1us brevissimus; 2us longissimus; 3us parvus, conicus. Antennæ latissime pectinateæ, ramis pilosis. Abdomen alas posticas non superans. Pedes sat graciles, mediocriter longi; tibiæ posticæ calcaribus quatuor longis. Alæ latæ.

*Male.* Body slender. Palpi porrect, very hairy beneath; first joint very short; second very long; third small, conical. Antennæ very deeply pectinated; branches pilose. Abdomen extending as far as the hind wings. Legs rather slender, moderately long; hind tibiæ with four long spurs. Wings broad. Fore wings with the first, second and third inferior veins near together at the base; second half the distance between the first and the third; third about thrice further from the fourth than from the second.

REPENA? FUSCA.

Mas. *Fusco-testacea; palpi fusco varii; antennæ fuscæ, albido annulatae; pedes fusti, albido fasciati; alæ anticae fasciis angulosis, ocello discali, lunulis submarginalibus atomisque fuscis; posticæ pallide fuscæ, albido variaæ.*

*Male.* Brownish testaceous. Palpi with a dark brown streak on the second joint; third joint dark brown at the base. Antennæ

brown, with whitish bands, which are equal in number to the branches on each side; base whitish. Legs brown; femora whitish; tibiae and tarsi with whitish bands. Fore wings powdered with dark brown, the flecks here and there confluent; three or four more or less indistinct brown partly whitish-bordered zigzag oblique bands; a subquadrate brown discal ocellus, and a row of submarginal brown crescents along the exterior border; cilia brown, with testaceous intervals opposite the veins; under side brownish testaceous, with a brown band. Hind wings pale brown, here and there dingy whitish, and with a pale cilia; under side with a brown discal spot, and a brown band which corresponds to that of the fore wings. Length of the body 6—8 lines; of the wings 15—16 lines.

*a—d.* South Africa. Presented by Dr. A. Smith.

*e. ——?* Presented by H. F. Evans, Esq.

### Page 805.

#### Genus AMSACTA ?

*Mas.* Corpus mediocriter robustum. Oculi magni. Proboscis brevissima. Palpi brevissimi; articulus 3us minimus. Antennæ late pectinatae. Abdomen alas posticas non superans. Pedes validi; tibiæ posticæ calcaribus duobus longis apicalibus. Alæ breviusculæ, sat angustæ.

*Male.* Body moderately stout. Eyes large. Proboscis very short. Palpi very short; third joint very small. Antennæ deeply pectinated. Abdomen extending as far as the hind wings. Legs stout; hind tibiæ with two long apical spurs. Wings rather short and narrow. Fore wings with three inferior veins; first and second contiguous at the base; third rather remote.

#### AMSACTA ? TENEBROSA.

*Mas.* Cinerea; antennæ fuscæ; abdomen basi canum; alæ antice fasciis duabus angulosis connexis lituraque cuneiformi nigricantibus; posticæ cano-albæ.

*Male.* Cinereous. Antennæ brown. Abdomen hoary towards the base. Fore wings before the middle with two angular blackish bands, which are connected in the disk by two blackish streaks; a cuneiform blackish mark beyond the middle, near the hind border. Hind wings hoary white. Length of the body 3 lines; of the wings 8 lines.

*a.* North India. From Capt. Boys' collection.

*p. 88.*  
ELORIA MŒSTA.

Mas. *Nigro-cinerea*; *palpi basi et thorax anticus lutei*; *alæ apud discos plus minusve albidae aut cinerascentes*.

Male. Blackish gray. Palpi luteous towards the base. Antennæ black. Thorax luteous in front. Wings more or less whitish or pale gray in the middle part of the disk. Length of the body 6—7 lines; of the wings 16—20 lines.

Valley of the Amazon. In Mr. Saunders' collection.

ELORIA LUCIDA.

Mas. *Testacea*; *palpi apice fusi*; *pedes fusco vittati*; *alæ albæ, semihyalinæ, venis nigro-fuscis, anticæ striga costali marginique fuscis*.

Male. Testaceous. Palpi with brown tips. Antennæ brown. Legs striped with brown. Wings white, semihyaline; veins blackish brown. Fore wings tinged with brown on the apical half of the costa and along the exterior border, and across the tip of the discal areolet. Length of the body 6 lines; of the wings 16 lines.

Brazil. In Mr. Saunders' collection.

ELORIA TURBIDA.

Mas. *Lutea*; *palpi fuscescentes*; *pedes fusi*; *alæ albæ, semi-hyalinæ, marginibus nigricantibus, venis nigris; anticæ apices versus nigricantes*.

Male. Luteous. Palpi mostly brown. Antennæ and legs brown. Wings white, semihyaline, blackish along the borders; veins black. Fore wings blackish from the end of the discal areolet to the tips. Length of the body 4 lines; of the wings 12 lines.

a. —? Presented by E. Doubleday, Esq.

ELORIA DISCALIS.

Mas. *Fuscescens, subtus lutea*; *palpi lutei, apice fuscescentes*; *antennæ nigrae*; *pedes albidi*; *alæ hyalinæ, albæ aut sub-cinereæ, marginibus nigris, venis nigro limbatis, anticæ fascia obliqua discali nigra*.

Male. Brownish, luteous beneath. Palpi luteous, brownish towards the tips. Antennæ black. Legs whitish. Wings white,

hyaline, black about the borders and along the veins. Fore wings with a black oblique band across the end of the discal areolet. Length of the body 5—6 lines; of the wings 16—18 lines.

*Var. β.* Wings grayish instead of white, with the exception of two incomplete bands on the fore wings.

a. Ega. From Mr. Bates' collection.

### ELORIA? INTACTA.

Mas. *Alba*; *palpi gracillimi*; *antennæ latissime pectinatæ*; *tibiæ posticæ calcaribus brevissimis*; *alæ latæ, antice apud marginem exteriorem sat oblique*.

*Male.* White. Palpi very slender. Antennæ very deeply pectinated. Spurs of the hind tibiæ very short. Wings broad. Fore wings moderately oblique along the exterior border; second inferior vein about six times further from the third than from the first; third further by one-third from the fourth than from the second. Length of the body 5 lines; of the wings 15 lines.

a. West Coast of America. Presented by Capt. Wood and Lieut. Kellett.

Page 817.

### CYPRA? INCONCLUSA.

Mas. *Alba*; *palpi gracillimi, caput vix superantes*; *antennæ subpectinatæ*; *pedes graciles*; *tibiæ posticæ calcaribus quatuor sat longis*; *alæ subhyalinæ, fasciis duabus exterioribus subcinereis, antice maculis tribus costalibus unaque discali cinerascentibus*.

*Male.* White. Proboscis moderately long. Palpi very slender, slightly curved, hardly extending beyond the head. Antennæ slightly pectinated. Abdomen wanting in the specimen described. Legs slender; hind tibiæ with four moderately long spurs. Wings nearly hyaline, with two incomplete pale grayish bands, one marginal, the other submarginal. Fore wings with three pale grayish spots along the costa, and with one at the tip of the discal areolet. Length of the body 5? lines; of the wings 17 lines.

a. ——?

## Genus SIMENA.

*Mas.* Corpus gracile. Proboscis capitis latitudine multo longior. Palpi porrecti, caput non superantes; articulus 3us conicus, obtusus. Antennæ sat late pectinatæ, corporis dimidio longiores. Abdomen alas posticas paullo superans. Pedes validi; tibiæ posticæ dilatatæ, quadricalcaratæ. Alæ latæ; anticæ apud costam subrectæ, apice rotundatæ, margine exteriore sat obliquo.

*Male.* Body slender. Proboscis much longer than the breadth of the head. Palpi porrect, not extending beyond the head; third joint conical, minute, obtuse. Antennæ rather deeply pectinated, more than half the length of the body. Abdomen extending a little beyond the hind wings. Legs stout; hind tibiæ dilated, with four spurs; middle spurs long; apical pair short. Wings broad. Fore wings almost straight in front, rounded at the tips, rather oblique along the exterior border; three inferior veins; second nearly thrice further from the third than from the first.

## 1. SIMENA LUCTIFERA.

*Mas.* *Purpureo-cinerea*; *caput et thorax anticus lutea*; *antennæ nigræ*; *alæ anticæ fascia lata alba*.

*Male.* Purplish gray. Head and fore part of the thorax luteous. Proboscis tawny. Antennæ black. Fore wings with a broad white band, which decreases in breadth towards the interior angle. Length of the body 9 lines; of the wings 21 lines.

Mexico. In Mr. Saunders' collection.

Page 827.

## REDOA? COMES.

*Mas.* *Alba*; *alæ anticæ fasciis quatuor obliquis glauco-albis*.

Idalia comes, (*Phalena Vera, Hypogymnia subsquamnata*), Geyer, Samml. Exot. Schmett. 16, 324, f. 647, 648.

Brazil.

Page 829.

## LÆLIA? SOCRUS.

*Mas.* *Testacea*; *alæ anticæ cervinæ, dimidio fere apicali fusco macula cervina, subtus testacea apice fuscæ*.

*Gynaephora Socrus*, (*Phalæna Vera*, *Dasychira colorata*), Geyer,  
*Zutr. Samml. Exot. Schmett.* 12, 419, f. 837, 838.

Java.

Page 831.

LEUCOMA BREVICORNIS.

Mas. *Cervina*; *antennæ breves*; *thorax anticus et pedes antici albi*; *alæ latae*.

*Male.* White. Body and legs fawn-colour. Antennæ short. Thorax in front and fore legs white. Wings broad. Length of the body 7 lines; of the wings 17 lines.

a. Hong Kong. Presented by Colonel Champion.

Page 834.

EUPROCTIS ARGYRORRHœA.

Mas. *Alba*; *abdominis segmenta testaceo marginata*.

*Euproctis argyrorrhœa*, (*Phalæna Vera*, *Leucoma alba*), Hübn.  
*Samml. Exot. Schmett.* ii. 13, 123, f. 245, 246.

Surinam.

EUPROCTIS ARGENTIFLUA.

Mas et fœm. *Alba*; *alæ cervino ex parte marginatæ, anticæ gutta postica marginali nigricante*. Mas.—*Alæ anticæ gutta postica submarginali rufescente*.

*Euproctis argentiflua*, Hübn. *Samml. Exot. Schmett. Add. Lep.* iii.  
*Bomb.* ii. *Veræ*, iii. *Leucomæ A. Albæ.* 2.

Cuba.

EUPROCTIS ? PELLUCIDA.

Mas. *Glauca*; *abdomen fusco fasciatum*; *alæ albæ, nigro venosæ, marginibus et anticarum apicibus nigro-fuscis*.

*Liparis pellucida*, (*Phalæna Vera*, *Hypogymna subsquamata*), Hübn.  
*Samml. Exot. Schmett.* ii. 17, 137, f. 273, 274.

Surinam.

*Page 835.*

**EUPROCTIS OCHROPODA.**

*Candida ; palpi, pedes antici tarsique posteriores ochracei ; antennæ nigrae.*

Liparis ochropoda, Eversm. Bull. Soc. Imp. Nat. Mosc. xx. 3, 76, 10, pl. 5, f. 1—3.

Asiatic Russia.

*Page 838.*

**EUPROCTIS ? FLAVATA.**

*Lutea ; alæ posticæ testacea, luteo venosæ et ciliatæ.*

Phalæna-Bombyx flavata, Cram. Pap. Exot. iv. 307, f. C.  
Antarctia flava, Hübn. Verz. Schmett. 191, 1967.

Samarang, Java.

**EUPROCTIS ? ICILIA.**

*Testacea ; alæ anticæ striga basali ferruginea, fascia obliqua exteriore fusca ; guttis exterioribus unaque discali nigris.*

Phalæna-Bombyx Icilia, Stoll. Cram. Pap. Exot. v. 158, pl. 35, f. 5.

Bombyx arenacea, Linn. ?? See page 1150.

Nygma arenacea, Hübn. Verz. Schmett. (Phalæna Veræ Heteromorphæ Umbrosæ), 193, 1983.

Tranquebar.

**EUPROCTIS ? ALBINA.**

*Alba, abdomen flavum ; alæ anticæ macula oblonga nigra.*

Phalæna-Bombyx Albina, Cram. Pap. Exot. iv. 234, pl. 398, f. E.  
Nygma Albina, Hübn. Verz. Schmett. 193, 1985.

Japan.

**EUPROCTIS ? HELLADIA.**

Mas. *Testacea ; alæ anticæ vitta subcostali cervina, gutta discali nigra strigaque obliqua postica fusca ; posticæ albidæ.*

*Phalæna-Bombyx Helladia*, *Cram. Pap. Exot.* iv. 234, pl. 398,  
f. H.

*Nygma Helladia*, *Hübn. Verz. Schmett.* 193, 1984.

Japan.

### EUPROCTIS GAMMA.

**Fœm.** *Pallide lutea; antennæ albidae; abdomen testaceum; alæ anticæ fascia obliqua nigra albo conspersa et marginata necnon antice abbreviata et furcata, guttaque submarginali nigra; posticæ pallide testacea.*

**Female.** Pale luteous. Antennæ whitish. Abdomen testaceous, darker at the tip. Fore wings with a white-sprinkled and bordered oblique black band, which is shortened and forked in front; a black submarginal dot at a little in front of the middle of the exterior border; under side paler, with a brownish disk. Hind wings pale testaceous. Length of the body 8 lines; of the wings 22 lines.

*a.* North India. From Capt. Reid's collection.

### EUPROCTIS PLANA.

**Mas.** *Testacea; alæ anticæ gutta discali nigra.*

**Male.** Testaceous. Fore wings with a black dot at the tip of the discal areolet. Length of the body 8 lines; of the wings 22 lines.

*a.* North India. From Mr. James' collection.

### EUPROCTIS MARGINALIS.

**Mas.** *Alba; antennæ ramis nigricantibus; abdomen apice luteum; alæ anticæ subtus apud costam fuscescentes.*

**Male.** White. Antennæ with blackish branches. Abdomen luteous at the tip. Fore wings brownish beneath along the costa. Length of the body 4 lines; of the wings 12 lines.

*a.* North India. From Mr. Stevens' collection.

### EUPROCTIS LUNATA.

**Var. Mas.** *Alba; abdominis dorsum luteum, basi apiceque album; alæ anticæ litura discali arcuata nigra; posticæ subtestacea, gutta discali ferruginea.*

*Male.* White. Proboscis and branches of the antennæ testaceous. Abdomen luteous above, white at the base and at the tip. Fore wings with a curved black mark at the tip of the discal areolet. Hind wings with a slight testaceous tinge, and with a ferruginous discal dot. Length of the body 5 lines; of the wings 15 lines.

Hindostan. In Mr. Saunders' collection.

Page 843.

**STILPNOTIA PURA.**

Mas. *Candida*; alæ anticæ linea obliqua indistincta pallide fuscescente.

*Male.* Pure white. Fore wings with an indistinct pale brownish line, which proceeds from near the tips to the middle of the interior border. Length of the body 4 lines; of the wings 12 lines.

a. Santarem. From Mr. Bates' collection.

**STILPNOTIA SORDIDA.**

Fœm. *Albida*; caput et thorax anticus testacea; antennæ ramis nigris; abdomen apicem versus pallide luteum.

*Female.* White, slightly dingy. Head and fore part of the thorax testaceous. Antennæ with black branches. Abdomen pale luteous towards the tip. Length of the body 6 lines; of the wings 18 lines.

a. Silhet. Presented by E. Doubleday, Esq.

Page 852.

**TEARA? CONTRISTIS.**

Mas. *Testacea*; abdomen nigrum, ventre apice guttisque dorsalis testaceis; alæ anticæ ocello discali, margine antico fasciisque apicalibus subocellaribus fuscis, guttisque subapicalibus albis; posticæ nigræ, testaceo marginatæ.

*Epicoma contristis*, (*Phalæna Vera*, *Leucoma undata*), *Hübner Samml. Exot. Schmett.* ii. 9, 109, f. 217, 218.

New Holland.

## TEARA ? TERMINALIS.

*Mas.* *Fusca*; *antennæ mediocriter pectinatæ, corporis dimidio longiores; thorax plaga discali maculisque duabus lateralibus albidis; abdomen luteum, nigro fasciatum; pedes cani; tarsi nigri, fasciis canis; alæ mediocriter latæ; anticæ nigro conspersæ trimaculatæ et bifasciatæ; posticæ albidae, linea submarginali cinerea.*

*Male.* Brown, paler beneath. Antennæ tawny, moderately pectinated, more than half the length of the body. Thorax whitish in the middle, and at the base of each fore wing. Abdomen luteous, with black bands. Legs hoary; tarsi black, with hoary bands. Wings moderately broad. Fore wings with two slight indistinct black bands, and with black speckles, which are here and there confluent and form three black spots; two of the spots subcostal, the third exterior, discal, and smaller than the others. Hind wings whitish, with a cinereous submarginal line, and with blackish hairs along the interior border. Length of the body  $7\frac{1}{2}$  lines; of the wings 20 lines.

*a.* Moreton Bay. From Capt. Parry's collection.

## Page 857.

## Genus CISPIA?

Corpus gracile. Proboscis non conspicua. Palpi mediocriter longi, caput superantes; articulus 3us lanceolatus, 2i dimidio brevior. Pedes graciles; tibiæ posticæ calcaribus quatuor longis. Alæ latæ; anticæ apud costam subconvexæ, apice vix angulatæ. *Mas.* —Antennæ late pectinatæ. Alæ posticæ abdomen non superantes. *Fæm.* —Antennæ subpectinatæ. Alæ posticæ abdomen superantes.

Body slender. Proboscis very short or obsolete. Palpi moderately long, extending beyond the head; second joint very much longer than the first; third lanceolate, not half the length of the second. Legs slender; hind tibiæ with four long spurs. Wings broad. Fore wings slightly convex along the costa, hardly angular at the tips; second inferior vein more than twice further from the third than from the first; third much further from the fourth than from the second. *Male.* —Antennæ deeply pectinated. Hind wings not extending beyond the abdomen. *Female.* —Antennæ slightly pectinated. Hind wings extending beyond the abdomen.

**CISPIA? OBLIQUA.**

*Pallide testacea; palpi et pedes antici supra nigricantes; alæ anticæ fascia perobliqua pallide fusca, posticæ albidae.*

Pale testaceous. Palpi and anterior legs blackish above. Fore wings with a pale brown very oblique band interrupted by the veins, and extending from near the tips to the middle of the interior border. Hind wings whitish. Length of the body 6—7 lines; of the wings 14—24 lines.

*a—c.* Sierra Leone. Presented by the Rev. D. F. Morgan.

**Genus SOMENA.**

*Mas.* Corpus sat gracile. Proboscis non conspicua. Palpi porrecti, graciles, caput sat superantes; articulus 2us 3o duplo longior; 3us elongatus. Antennæ late pectinatae, thorace paullo longiores. Abdomen alas posticas non superans. Pedes graciles, anteriores ciliati; tibiæ posticæ calcaribus quatuor longis. Alæ latæ; anticæ apud costam vix convexæ, apice rotundatae, margine exteriore mediocriter obliqua, interiore setis erectis armato.

Allied to *Cispia*. *Male*.—Body rather slender. Proboscis not visible. Palpi porrect, slender, extending some distance beyond the head; third joint elongate, about half the length of the second. Antennæ deeply pectinated, a little longer than the thorax. Abdomen not extending beyond the hind wings. Legs slender; anterior legs ciliated; hind tibiæ with four long spurs. Wings broad. Fore wings very slightly convex in front, rounded at the tips, moderately oblique along the exterior border, with long vertical bristles along the interior border; second inferior vein nearer to the first than to the third; third about twice further from the fourth than from the second.

**SOMENA SCINTILLANS.**

*Mas.* *Testacea; caput subluteum; thorax et abdomen fusca, hoc apice luteum; alæ anticæ disco fusco tuberculis nigris, apud marginem exteriorem argenteo squamosæ.*

*Male.* Testaceous. Head somewhat luteous. Thorax and abdomen brown, the latter with a luteous tip. Disk of the fore wings brown, wholly studded with black tubercles, and adorned with silvery spangles along its exterior side, where the brown hue

forms two branches. Length of the body 4 lines; of the wings 10 lines.

a. North India. From Capt. Reid's collection.

### Genus ANDRIASA.

*Mas.* Corpus sat validum. Proboscis non conspicua. Palpi incrassati, ascendentes, obtusi, pilosi; articulus 3us minimus. Antennæ subpectinatæ, pilosæ, thorace paullo longiores. Abdomen alas posticas paullo superans. Pedes validi, pilosi. Alæ latæ; anticæ apice angulatæ, apud costæ apicem subconvexæ, margine exteriore sat obliquæ.

Allied to *Dasychira*. *Male*.—Body moderately stout. Proboscis not visible. Palpi ascending, pilose, obtuse, very thick; third joint very short. Antennæ a little longer than the thorax, slightly pectinated; each branch accompanied by several hairs. Abdomen extending a little beyond the hind wings. Legs stout, pilose. Wings broad. Fore wings slightly convex in front towards the tips, which are somewhat angular, rather oblique along the exterior border; three inferior veins, second more than twice further from the third than from the first.

### ANDRIASA CONTRARIA.

*Mas.* *Testacea*; *palpi fuscescentes*; *alæ lineis duabus transversis obliquis subundulosis fuscis, anticæ lineis duabus basim versus transversis strigaque fuscis*.

*Male*. Testaceous, paler beneath. Palpi somewhat brownish. Wings with two slender oblique slightly undulating brown bands. Fore wings with two other bands nearer the base, the second connected with the inner one of the exterior bands by a brown streak in the disk. Length of the body 10 lines; of the wings 24 lines.

a. ——? From Mr. Milne's collection.

### Genus ANDRIASA?

*Fæm.* Corpus sat robustum. Proboscis non conspicua. Palpi crassi, porrecti, pilosi, caput vix superantes; articulus 3us minutus. Antennæ mediocriter pectinatæ, thorace non longiores. Abdomen alas posticas paullo superans. Pedes validi, pilosi; tibiæ posticæ calcaribus quatuor longis. Alæ latæ; anticæ apud costam subrectæ, apice angulatæ, margine exteriore vix obliquæ.

*Female.* Body moderately stout. Proboscis not visible. Palpi porrect, pilose, very stout, hardly extending beyond the head; third joint minute. Antennæ moderately pectinated, as long as the thorax. Abdomen extending a little beyond the hind wings. Legs stout, pilose; hind tibiæ with four long spurs. Wings broad. Fore wings almost straight along the costa, rectangular at the tips, very slightly oblique along the exterior border; three inferior veins, first and second nearly contiguous at the base; third rather remote.

#### ANDRIASA? MARGINALIS.

*Fœm.* *Testacea, subtus albida; palpi supra nigri; alæ lineis duabus undulosis transversis fuscis, anticæ fusco conspersæ lunulis marginalibus fuscis signatæ.*

*Female.* Pale testaceous, whitish beneath. Palpi black above. Wings with two undulating transverse brown lines, which are indistinct in the hind wings. Fore wings minutely speckled with brown, adorned with brown lunules between the veins along the exterior border. Length of the body 8 lines; of the wings 18 lines.

*a.* Brazil. From Mr. Stevens' collection.

#### Genus COLABATA.

*Fœm.* Corpus robustum. Proboscis non conspicua. Palpi validi, porrecti, subtus pilosissimi, caput vix superantes; articulus 3us minutus. Antennæ subpectinatae, thorace paullo breviores. Abdomen alas posticas superans. Pedes validi, pilosi. Alæ latæ; anticæ apud costam subconvexæ, apice angulatæ, margine exteriore subdenticulato mediocriter obliquo.

Allied to *Nadata*. *Female.*—Body stout. Proboscis not visible. Palpi stout, porrect, very pilose beneath, hardly extending beyond the head; third joint minute. Antennæ very slightly pectinated, a little shorter than the thorax. Abdomen extending somewhat beyond the hind wings. Legs stout, pilose. Wings broad. Fore wings slightly convex in front, rectangular at the tips, moderately oblique and slightly denticulated along the exterior border; three inferior veins; first and second nearly contiguous at the base; third remote.

## COLABATA LINEOSA.

Fœm. *Albida; caput et palpi supra nigricantia; abdomen vitta dorsali cervina; thorax et pedes fusco conspersi; alæ testaceæ, lineis duabus transversis undulosis fuscis; anticæ fusco conspersæ, ex parte luteæ, apud costam albidæ, lineis duabus basim versus transversis undulosis fuscis.*

*Female.* Whitish. Head and palpi blackish above. Abdomen with a fawn-coloured dorsal stripe. Thorax and legs minutely streaked with brown. Wings testaceous, with two slender undulating brown bands. Fore wings minutely speckled with brown, here and there luteous, whitish along the costa, with two slender undulating brown bands towards the base. Length of the body 10 lines ; of the wings 24 lines.

Brazil. In Mr. Saunders' collection.

Page 866.

## DASYCHIRA ROSSII.

Larva with tawny hairs, and furnished with two black dorsal tufts, between which there is a luteous one.

a—g. (*e—g. larva*). Winter Cove and Cambridge Bay, Arctic America. Presented by Capt. Collinson, R. N., H.M.S. Enterprise.

Page 869.

## DASYCHIRA INCLUSA.

Mas. *Corpus sat gracile. Palpi validi, pilosi, obtusi, caput sat superantes. Antennæ lattissime pectinatae, corporis dimidio æquales. Abdomen alas posticas paullo superans. Pedes antici validi, dense pilosi; posteriores graciles; tibiæ posticæ calcaribus quatuor longiusculis. Alæ latæ, non longæ; anticæ apud costam subconvexæ, apice subangulatae, margine exteriore subconvexo vix obliquo.*

*Male.* Body rather slender. Palpi stout, pilose, obtuse, extending somewhat beyond the head. Antennæ extremely deeply pectinated, about half the length of the body. Abdomen extending for one-fourth of its length beyond the hind wings. Fore legs stout, thickly pilose; posterior legs slender; hind tibiæ with four rather long spurs. Wings broad, not long. Fore wings slightly

convex in front, almost angular at the tips, very slightly convex, and hardly oblique along the exterior border.

Fœm. *Corpus sat robustum. Palpi graciliores. Antennæ sub-pectinatæ, thorace paullo longiores. Abdomen alas posticas triente superans. Alæ longiusculæ; anticæ apud costam plus convexæ, margine exteriore plus obliquæ.*

*Female.* Body rather stout. Palpi more slender than those of the male. Antennæ very minutely pectinated, a little longer than the thorax. Abdomen extending for one-third of its length beyond the hind wings. Wings rather long. Fore wings more convex in front than those of the male, and more oblique along the exterior border.

*Obscure cervina; alæ anticæ nigro punctatae.* Mas.—*Alæ anticæ apud marginem exteriorem fusco nebulosæ, litura discali albida strigisque duabus angulosis transversis nigris.* Fœm.—*Alæ anticæ apud discum cinerascentes, fascia obliqua cervina fusco marginata, litura discali fusca.*

Dull fawn-colour, pale beneath. Abdomen and hind wings paler than the thorax and the fore wings. *Male.*—Fore wings clouded with brown along the exterior border, thinly flecked with black; a whitish mark in the disk, and two slender zigzag transverse black streaks. *Female.*—Paler than the male. Fore wings flecked with black; disk mostly gray; this hue is interrupted by an oblique and irregular fawn-coloured band, which is bordered with dark brown; discal mark dark brown. Length of the body 6—14 lines; of the wings 9—22 lines.

*a, b. Java.*

*Page 870.*

#### DASYCHIRA LEUCOPHÆA.

*Cristata; alæ fuscæ, anticæ striga lata albida, basi lineola nigra, punto anguli postici albo.*

*Phalæna leucophæa, Abbot and Smith, Nat. Hist. Lep. Ins. Georgia, ii. 155, pl. 78.*

*a. Georgia.* From Mr. Milne's collection.

## DASYCHIRA ALBICANS.

*Mas et fœm.* *Albida, subtus plus minusve cinerea ; alæ gutta discali fusca, anticæ fasciis nonnullis indistinctis angustis undulosis pallide cervinis.* *Mas.—Alæ posticæ cinereo marginatae.* *Fœm.—Alæ posticæ subcinereæ.*

*Male and female.* Whitish, more or less cinereous beneath. Wings with a discal brown dot. Fore wings with several indistinct slender undulating pale fawn-coloured bands. *Male.*—Hind wings with somewhat cinereous borders. *Female.*—Hind wings slightly cinereous. Length of the body 5—8 lines ; of the wings 14—22 lines.

*a.* Celebes. From Madame Ida Pfeiffer's collection.

## DASYCHIRA ANTICA.

*Fœm.* *Albida ; caput supra luteum ; thorax fusco unifasciatus ; abdomen fasciis roseis ; pedes nigri, tibiis posticis albo pilosis ; alæ antice pallide fuscae, costa fasciaque exteriore angusta obliqua angulosa albidis, lituris costalibus nigricantibus guttaque discali fusca ; posticæ marginibus pallidissime fuscis.*

*Female.* Whitish. Head luteous above. Antennæ black. Thorax with a brown band. Abdomen with rosy bands. Legs mostly black ; hind tibiæ with white hairs. Fore wings pale brown, whitish along the costa, and with an exterior slender oblique zigzag whitish band ; some dark brown or blackish marks along the costa ; one of these is lengthened hindward, and forms an angular streak across the tip of the discal areolet, which has a brown dot in its middle. Hind wings with very pale brown borders. Length of the body 8 lines ; of the wings 22 lines.

*a.* Java. From the East India Company's collection.

## DASYCHIRA ATOMARIA.

*Mas.* *Pallide cervina ; antennæ albidae ramis fuscis ; alæ antice nigro conspersæ et biguttatæ, fascia exteriore angusta obliqua fusca antice furcata ; posticæ sordide albidae.*

*Male.* Pale fawn-colour. Antennæ whitish, with brown branches. Fore wings speckled with black, and with two black dots, one at the base, the other on the tip of the discal areolet ;

beyond the latter there is a slender oblique brown band, which is forked in front. Hind wings dingy whitish. Length of the body  $5\frac{1}{2}$  lines; of the wings 14 lines.

a. ——?

#### DASYCHIRA HERBIDA.

Mas. *Viridescens, subtus albido-testacea; palpi supra nigricantes; abdomen albido-testaceum; alæ anticæ nigro punctatæ, strigis transversis costalibus albidis; posticæ albido-testacea, fusco late marginatae.*

*Male.* Greenish, whitish testaceous beneath. Palpi blackish above. Antennæ blackish, with tawny branches. Abdomen whitish testaceous. Fore wings thinly flecked with black; some transverse whitish marks along the costa. Hind wings whitish testaceous, with broad brown borders. Length of the body 10 lines; of the wings 22 lines.

South Africa. In Mr. Saunders' collection.

#### DASYCHIRA? PERSPICILLA.

Mas. *Straminea; alæ anticæ plaga magna discali subocellari fusca nigro alboque lineata.*

Phalæna-Bombyx perspicilla, Stoll. Cram. Pap. Exot. 74, pl. 16, f. 3.

Parathyris perspicilla, Hübn. Verz. Schmett. (*Phalæna Veræ Herææ Dilucidae*), 158, 1641.

Surinam.

#### DASYCHIRA? NETRIX.

*Pallide lutea; abdominis latera alba; alæ anticæ basi fasciisque duabus albis; posticæ albæ.*

Phalæna-Bombyx Netrix, Cram. Pap. Exot. iv. 35, pl. 307, f. B. Gynaephora Netrix, Hübn. Verz. Schmett. (*Phalæna Veræ Dasychiræ Coloratæ*), 161, 1673.

Surinam.

## DASYCHIRA ? HIPPARCHIA.

Fœm. *Ferruginea*; *alæ anticæ fuscæ fasciis variis obliquis pallide ferrugineis.*

Phalæna Hipparchia, *Cram. Pap. Exot.* ii. 135, pl. 185, f. D.  
Surinam.

## DASYCHIRA ? EPHORA.

*Fusca*; *abdomen rufescens, fasciis fuscis; alæ anticæ fasciis variis fuscis; posticæ rufescentes, fasciis duabus fuscis.*

Phalæna-Bombyx Ephora, *Cram. Pap. Exot.* iv. 110, pl. 347, f. D.  
Surinam.

## DASYCHIRA ? CINEREA.

*Cinerea*; *thorax fascia arcuata albida; abdomen canum, maculis dorsalibus nigris; alæ anticæ macula discali albida.* Mas.—  
*Alæ fasciis duabus guttisque marginalibus albidis; posticæ albæ, cinereo marginatæ.* Fœm.—*Alæ anticæ albido quadrifasciatæ; posticæ pallidiores, fascia albida nigro marginata.*

Phalæna-Bombyx cinerea, *Anon. Ins. Surinam*, i. 21, pl. 7.

Larva gregarious.

Surinam.

## DASYCHIRA ? AMYNTA.

*Rufescens*; *alæ anticæ apices versus pallidiores, fascia latissima flava, strigis duabus anticis guttisque duabus exterioribus, una antica altera postica nigris, posticæ margine antico fusco.*

Phalæna-Bombyx Amynta, *Cram. Pap. Exot.* iv. 33, pl. 306, f. C.  
Surinam.

Page 873.

## LYMANTRIA ? DEMORTUA.

Mas. *Alba*; *alæ flavescente marginatæ.*

Liparis demortua, (*Phalæna Vera, Hypogymna subsquammata*), *Hüb.*  
*Samml. Exot. Schmett.* iii. 23, 241, f. 481, 482.

Isle St. Thomas.

## LYMANTRIA ? VISUM.

Mas. *Cervina*; alæ albæ, anticæ plus dimidio costali cervino-fuscescentes.

Liparis visum, (*Phalæna Vera, Hypogymna subsquammata*), Hübn.  
Samml. Exot. Schmett. iii. 33, 272, f. 543, 544.

Monte Video.

## LYMANTRIA ? ELEUTHERA.

*Straminea*; antennæ subpectinatæ; abdomen fulvum; alæ anticæ strigis transversis duplicatis cervinis, fasciis duabus maculaque exteriore fuscis; posticæ subroseæ, stramineo marginatæ.

Phalæna-Bombyx Eleuthera, Cram. Pap. Exot. iv. pl. 371, f. A.

Surinam.

## Page 923.

For Alæ anticæ apud costam latæ.

Read Alæ anticæ latæ, apud costam vix convexæ.

## Page 925.

## DREATA FABIA.

Bombyx Fabia, Oliv. Enc. Méth. Ins. v. 38, 51.

Eupterote Fabia, Hübn. Verz. Schmett. 187, 1933.

## REDOA ? REGINA.

Idalia Regina, Hübn. Verz. Schmett. (*Phalænæ Sphingoides Platyperices Rotundatae*), 149, 1566.

## Genus NAXA.

Mas. Corpus gracillimum. Proboscis non conspicua. Palpi brevissimi. Antennæ mediocriter pectinatæ. Abdomen alas posticæ non superans. Pedes gracillimi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ latæ; anticæ apud costam subrectæ, margine exteriore mediocriter obliquo.

Allied to *Cimola*. Male.—Body very slender. Proboscis not visible. Palpi very short. Antennæ moderately pectinated, about half the length of the body. Abdomen extending as far as the hind

wings. Legs very slender; hind tibiæ with two extremely minute apical spurs. Wings broad. Fore wings almost straight in front, rounded at the tips, moderately oblique along the exterior border; second inferior vein much further from the third than from the first.

### 1. NAXA TEXTILIS.

*Mas.* *Candida*; *antennæ albidæ*; *genua nigra*; *tibiæ apice nigrae*; *alæ subnudæ*, *macula discali guttisque marginalibus duplicatis nigris*.

*Male.* Pure white. Antennæ whitish. Knees black. Tibiæ with black tips. Wings very thinly feathered, with a blackish spot on the tip of the discal areolet, and with two rows of blackish dots along the exterior border. Fore wings with three blackish dots near the base. Length of the body 6—8 lines; of the wings 16—22 lines.

*a, b.* Silhet. From the Rev. J. Stainforth's collection.

*c, d.* Silhet. From Mr. Sowerby's collection.

*e, f.* Silhet. Presented by E. Doubleday, Esq.

*g.* Silhet. From Mr. Stainforth's collection.

*h.* —?

### Genus ANTIPHELLA.

*Corpus sat validum. Caput et thorax densissime pilosa. Proboscis non conspicua. Palpi pilosi, brevissimi, Pedes validi; tibiæ posticæ calcaribus duobus longiusculis apicalibus. Alæ latæ; anticæ apud costam vix convexæ, apice rotundatae, margine extiore mediocriter obliquo. Mas.—Antennæ mediocriter pectinatae. Alæ amplæ. Fæm.—Antennæ subpectinatae.*

Body moderately stout. Head and thorax thickly clothed with long hairs. Proboscis not visible. Palpi pilose, very short. Antennæ longer than the thorax. Legs stout; hind tibiæ with two rather long apical spurs. Wings broad. Fore wings hardly convex in front, rounded at the tips; second inferior vein full four times further from the third than from the first; third much further from the fourth than from the second. *Male.*—Antennæ moderately pectinated. Wings ample. *Female.*—Antennæ slightly pectinated. Spurs of the hind tibiæ longer than those of the male. Wings smaller; exterior border less oblique.

This genus in the Synopsis, p. 778, comes between *Pterolocera* and *Anthela*, but is much more nearly allied to *Lælia* and to *Leucoma*.

## 1. ANTIPHELLA CROCICOLLIS.

*Testacea.*

*Liparis crocicollis*, Boisd.

*Aroa?* crocicollis, p. 794.

*a—h.* Cape. Presented by R. W. Townsend, Esq.

*i—k.* South Africa. Presented by Dr. A. Smith.

*l—n.* Port Natal. From M. Gueinzius' collection.

## Genus NAROMA.

Corpus robustum, pilosum. Palpi mediocriter longi, caput non superantes; articulus 2us 1o plus duplo longior; 3us conicus, minimus. Abdomen alas posticas non superans. Pedes longe pilosi; tibiæ posticæ calcaribus duobus apicalibus mediocriter longis. Alæ anticae apud costam subconvexæ, apice rotundatæ. *Mas.*—Antennæ late pectinatæ. *Fæm.*—Antennæ sat late pectinatæ.

Body stout, hairy. Proboscis obsolete? Palpi moderately long, not extending beyond the head; second joint more than twice the length of the first; third conical, very minute. Abdomen not extending beyond the hind wings. Legs with long hairs; hind tibiæ with two apical spurs of moderate length. Fore wings rather narrow, very slightly convex along the costa, rounded at the tips; second inferior vein twice further from the third than from the first; third thrice further from the fourth than from the second. *Male.*—Antennæ deeply pectinated. *Female.*—Antennæ rather deeply pectinated.

The structure of the costal vein of the hind wings associates this genus with the *Arctiidæ*, but in other characters it is more allied to the *Liparidæ*.

## 1. NAROMA SIGNIFERA.

*Mas et fœm.* *Albido-cervina;* caput apud oculos, palpi et pedes antici supra lutea; abdomen album, vitta basali pallide cervina; tarsi anteriores nigricantes, albo fasciati; alæ anticae guttis discalibus fuscis; posticæ albæ.

*Male and female.* Whitish fawn-colour. Head about the eyes, palpi and fore legs above luteous. Abdomen and hind wings white, the former with a pale fawn-coloured stripe towards the base. Anterior tarsi blackish, with white bands. Fore wings with brown dots along the hind border of the discal areolet, whose transverse

apical veinlet is luteous, with a brown dot at each end. Length of the body 6—7 lines; of the wings 14—22 lines.

a. Sierra Leone. Presented by the Rev. D. F. Morgan.

b. —? Presented by H. F. Evans, Esq.

c. —? Presented by E. Doubleday, Esq.

### Genus TANADA.

*Mas.* Corpus sat gracile. Proboscis capitis latitudine longior. Palpi graciles, porrecti, pubescentes, caput superantes; articulus 3us minutus, conicus. Antennæ subpectinatae. Abdomen alas posticas vix superans. Pedes graciles, longiusculi; tibiæ posticæ calcaribus quatuor longiusculis. Alæ angustæ, longiusculæ; anticæ apud costam subconvexæ, apice rotundatæ, margine exteriore sat obliquo.

*Male.* Body rather slender. Head and thorax with flat-lying hairs. Proboscis longer than the breadth of the head. Palpi slender, porrect, pubescent, moderately long, extending rather beyond the head; second joint longer than the first; third minute, conical. Antennæ slightly pectinated, almost half the length of the body. Abdomen pubescent, hardly extending beyond the hind wings. Legs slender, pubescent, rather long; hind tibiæ with two rather long spurs. Wings narrow, rather long. Fore wings rounded at the tips, slightly convex along the costa and along the exterior border, which is oblique; second inferior vein very near the first and the third; third more than six times further from the fourth than from the second.

This genus is perhaps as nearly allied to the *Lithosiidae* as to the *Liparidae*, and seems to connect the two families.

#### 1. TANADA ANTICA.

*Mas.* *Testacea; palpi fuscescentes; thorax postice albus; abdomen e guttis nigris trivittatum, subtus album; pedes fusco strigati; alæ apud costam testaceaæ.*

*Male.* Testaceous. Proboscis tawny. Palpi brownish. Antennæ white, with black branches. Hind part of the thorax mostly white. Abdomen with three rows of black dots; under side white. Legs streaked with brown. Wings, the fore wings especially, testaceous along the costa. Length of the body 5 lines; of the wings 15 lines.

a. Georgia. From Mr. Abbot's collection.

### Genus EURYDA.

*Mas.* Corpus robustum. Palpi breves. Antennæ simplices, thorace longiores. Abdomen alas posticas non superans. Pedes validi; tibiæ posticæ calcaribus quatuor vix longis. Alæ mediocriter latæ; anticæ apud costam subrectæ, apice rotundatæ, margine exteriore perobliquo.

Euryda, Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. i.

#### 1. EURYDA VARIOLARIS.

*Fœm.* *Testacea*; thorax fulvo bivittatus, postice rufescens; abdominis segmenta nigro fasciata; pedes rufescentes; alæ anticæ vitta ramosa fasciaque exteriore undulata perobliqua fuscis; posticæ nigricantes marginibus rufescensibus.

Euryda variolaris, Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér. i. f. 182.

Colombia.

*Female.* Testaceous. Antennæ brown, testaceous at the base. Thorax with two tawny stripes, reddish by the base of the abdomen. Abdomen with a black band on each segment. Legs mostly reddish. Fore wings with a dark brown rameose stripe, whose branches are mostly along the veins, and with an undulating exterior very oblique brown band. Hind wings blackish, with pale reddish borders. Length of the body 5 lines; of the wings 14 lines.

Brazil. In Mr. Saunders' collection.

### Genus PHINECA.

*Fœm.* Corpus robustum. Proboscis non conspicua. Palpi longi, graciles, caput sat superantes; articulus 3us elongatus. Antennæ graciles, simplices, thorace longiores. Abdomen alas posticas dimidio superans. Pedes validi, pilosi; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ vix latæ; anticæ apud costam subrectæ, apice subrotundatæ, margine exteriore sat obliquo.

*Female.* Body stout. Proboscis not visible. Palpi long, slender, extending some distance beyond the head; third joint elongated. Antennæ slender, simple, longer than the thorax. Abdomen extending for about half its length beyond the hind wings. Legs rather stout and pilose; hind tibiæ with four moderately long spurs. Wings hardly broad. Fore wings almost straight in front,

slightly rounded at the tips, somewhat oblique along the exterior border; first and second inferior veins contiguous at the base; third rather remote from the second and from the fourth.

### PHINECA BASISTRIGA.

*Fœm. Albida; abdomen cervinum; alæ ciliis fuscis albisque, anticæ basim versus fuscae nigro strigatae, striga media fusca, margine exteriore cinereo; posticæ pallidissime fuscae.*

*Female.* Whitish. Abdomen fawn-colour. Wings with alternately brown and white ciliae. Fore wings brown, with some transverse black streaks for more than one-third of the length from the base, grayish along the exterior border; a transverse brownish streak in the disk. Hind wings very pale brown. Length of the body 5 lines; of the wings 11 lines.

a. ——? From Mr. Milne's collection.

*Page 927.*

### Genus TYPHONIA.

Typhonioideæ, Lederer, *Verhandl. Zool. Botan. Vereins zu Wien*, ii.

*Page 976.*

### Genus GENDUARA.

*Mas.* Corpus robustum. Proboscis non conspicua. Palpi brevissimi. Antennæ sat late pectinatæ, apices versus nudæ, thorace non longiores. Abdomen alas posticas paullo superans. Pedes validi; tibiæ posticæ calcaribus minutis apicalibus. Alæ mediocriter latæ; anticæ apud costam rectæ, apice subrotundatæ, margine exteriore perobliquo.

*Male.* Body stout. Proboscis not visible. Palpi extremely short. Antennæ rather deeply pectinated, bare towards the tips, as long as the thorax. Abdomen extending a little beyond the hind wings. Legs stout; hind tibiæ with minute apical spurs. Wings moderately broad. Fore wings straight in front, rounded slightly at the tips, very oblique along the exterior border; first and second inferior veins contiguous at the base; third rather remote from the second, much more remote from the fourth.

Larva inclosed in a case.

## GENDUARA CINEREA.

Mas. *Cinerea*; *caput et thorax supra alba*; *abdomen apice album*; *alæ anticæ maculis duabus discalibus unaque apud marginem interiore guttisque exterioribus nigris*.

*Male.* Gray. Head and thorax white above. Abdomen with a white tip. Fore wings with two black spots in the disk, and a third by the interior border, and some black dots along the exterior border. Length of the body 7 lines; of the wings 16 lines.

New South Wales. In Mr. Saunders' collection.

Page 983.

## CERURA BICUSPIS.

*Phalæna furcula*, *Abbot and Smith, Nat. Hist. Lep. Ins. Georg.* ii. 141, pl. 71.

Page 989.

## Genus HOPLITIS.

*Hybocampa*, *Lederer, Verhandl. Zool. Botan. Vereins zu Wien.* ii.

Page 992.

## CECRITA ALBIPLAGA.

Fœm. *Pallide fusca*; *palpi porrecti, caput paullo superantes*; *antennæ subpectinate, thorace non longiores*; *pedes sat gracieles*; *tibiae posticae calcaribus quatuor mediocriter longis*; *alæ anticæ nigro conspersæ et trifasciatæ, apud costam subconvexæ, apice angulatae, margine exteriore pero obliquo, plaga media costali albida*.

*Female.* Pale brown. Palpi porrect, extending a little beyond the head. Antennæ minutely pectinated, not longer than the thorax. Abdomen not extending beyond the hind wings. Legs rather slender; hind tibiae with four moderately long spurs. Fore wings slightly convex in front, somewhat angular at the tips, very oblique along the exterior border, with black freckles, and with three somewhat undulating oblique transverse lines of the same hue, first before one-third of the length, second beyond two-thirds of the length, third marginal; middle part whitish towards the costa. Length of the body 6 lines; of the wings 19 lines.

a. Nova Scotia. From Lieut. Redman's collection.

*Page 1000.*

NOTODONTA ANGUINA.

Fœm. *Cervina*; *thoracis discus cinereus*; *alæ anticæ ferrugineo-cervinæ, basi flavescentes, guttis nonnullis nigris, fascia marginaque exteriore subalbidis.*

*Phalæna anguina*, Abbot and Smith, *Nat. Hist. Lep. Ins. Georg.* ii. 167, pl. 84.

Datana? *Anguina*, p. 1062.

Georgia.

*Page 1001.*

NOTODONTA PLAGIATA.

*Cinerea*; *caput, antennæ thoracisque macula discalis cervina*; *alæ anticæ vitta marginali fulva fusco ex parte marginata, strigis nonnullis discalibus et subapicalibus fuscis cervino marginatis, margine interiore nigro fasciculato*; *posticæ fasciis subobsoletis obscurioribus.*

Gray. Head and antennæ fawn-colour. Thorax with a fawn-coloured spot in the disk. Fore wings with a fawn-coloured marginal stripe, which is widest along the interior border, and is partly bordered with brown; a few discal and subapical brown streaks, with fawn-coloured borders; interior border with a black tuft. Hind wings cinereous, with indistinct darker bands. Length of the body 9 lines; of the wings 20 lines.

—? In Mr. Saunders' collection.

*Page 1016.*

Genus ATRASANA.

Mas. Corpus robustum. Proboscis non conspicua. Palpi porrecti, pilosi, caput per paullo superantes; articulus 3<sup>us</sup> minimus. Antennæ sat late pectinatæ, triente apicali simplices, thorace valde longiores. Pedes validi, pilosi; tibiae posticæ calcaribus quatuor mediocriter longis. Alæ longiusculæ, sat angustæ; anticæ apud costam vix convexæ, apice subangulatæ, margine exteriore valde obliquo subdenticulato.

Allied to *Cetola*. Male.—Body stout. Proboscis not visible. Palpi porrect, pilose, extending very little beyond the head; third joint very minute. Antennæ very much longer than the thorax,

rather deeply pectinated to two-thirds of the length, simple from thence to the tips. Legs stout, pilose; hind tibiæ with four moderately long spurs. Wings rather long and narrow. Fore wings very slightly convex in front, slightly angular at the tips, very oblique and slightly denticulated along the exterior border; three inferior veins, second full four times further from the third than from the first.

#### ATRASANA POSTICA.

Mas. *Fusca; alæ anticae nubeculosæ, fascia lata media obliqua albida e lineis undulatis fuscis strigatae, striga postica subarcuata nigricante extus albido marginata; posticæ albæ, marginibus fuscis apud angulum interiorem obscurioribus latioribus.*

*Male.* Brown. Fore wings somewhat mottled, middle part with a broad oblique whitish band, which contains undulating transverse brown streaks; a slightly curved blackish streak, with a whitish exterior margin, proceeds from near the tip of the interior border to the middle of the exterior border. Hind wings white, with brown borders, which are dilated and darker by the interior angle. Length of the body 8? lines; of the wings 26 lines.

a. Port Natal. From M. Gueinzius' collection.

#### Page 1036.

#### BRACHIONYCHA? PUNCTULATA.

Mas. *Cinerea; palpi porrecti, caput paullo superantes; antennæ mediocriter pectinatae, thorace non longiores; tibiæ posticæ calcaribus quatuor sat longis; alæ fusco conspersæ, anticae lituris nonnullis costalibus obscurioribus.*

Described from an injured specimen.

*Male.* Cinereous. Palpi porrect, extending a little beyond the head. Antennæ moderately pectinated, not longer than the thorax. Hind tibiæ with four moderately long spurs. Wings closely flecked with brown. Fore wings with some transverse darker brown marks along the costa. Hind wings paler than the fore wings. Length of the body 6 lines; of the wings 18 lines.

a. South Africa. Presented by Dr. A. Smith.

*Page 1040.*

CNETHOCAMPA NEOGENA.

*Fusca; alæ anticæ macula media serieque dupli lunularum cohærentium ante limbum cum alis posticis cinereis.*

Gastropacha neogena, *Fisch. Suppl.* 71, 72. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text,* 108, 29.

Bombyx neogena, *Boisd. Gen. et Ind. Méth.* 70, 570.

*Var.?* Bombyx herculeana, *Ramb. Faun. Andalus.*

Ural Region. South Spain.

*Page 1059.*

ICHTHYUBA INCLUSA.

Ichthyura inclusa (*Phalæna Vera, Melalopha Certa*), *Hübn. Samml. Exot. Schmett.* iii. 36, 281, f. 561, 562.

Pennsylvania.

*Page 1062.*

DATANA? AURORA.

Hyparpax Aurora, *Hübn. Samml. Exot. Schmett.* ii. *Lep.* i. *Phal.* i. *Sphing.* iii. *Andriæ C. Aemulantes,* i. f. 1—4.

*Page 1068.*

LUSURA? MEGALOPS.

Mas et fœm. *Fusca; alæ anticæ obscure fuscæ, basi margine exteriore pallidis, vittis basalibus strigisque transversis nigris, ocelloque nigro albo marginato; posticæ margine lato nigricante.* Mas.—*Antennæ bis triente pectinato; alæ posticæ albidae.* Fœm.—*Antennæ simplices; alæ posticæ cinereæ.*

Phalæna-Bombyx Megalops, *Anon. Ins. Surinam,* i. 55, pl. 24.

Surinam.

Larva gregarious, feeds on the leaves of *Inga vera.*

*Page 1070.*

NIODA ? MENDOSA.

Fœm. *Fusca ; abdomen cinereum, linea dorsali nigra ; alæ anticæ pallide fuscae fascia media post medium angulata et effusa, striga obliqua postica subapicali cinerea ; posticæ cinereæ.*

Olene mendosa (*Phalæna Vera, Dasychira canescens*), *Hüb.*  
*Samml. Exot. Schmett.* iii. 19, 147, f. 293, 294.

Java.

*Page 1077.*

TIFAMA ? PUNCTATA.

*Fusca ; alæ anticæ guttis variis ocelloque subquadrata discali nigris ; posticæ ferrugineæ plaga discali subcinerea.*

*Phalæna-Bombyx punctata, Cram. Pap. Exot.* iv. 36, pl. 307, f. F.  
Surinam.

TIFAMA ? THARIS.

*Fusca ; abdomen apice testaceum ; alæ anticæ maculis costalibus testaceis, postice testaceæ fusco maculatae.*

*Phalæna-Bombyx Tharis, Cram. Pap. Exot.* iv. 38, pl. 308, f. D.  
*Disphragis Tharis, Hüb. Verz. Schmett.* 194, 1988.

Surinam.

*Page 1091.*

Genus PHECADA.

*Mas.* Corpus vix robustum. Proboscis non conspicua. Palpi mediocriter longi, sat graciles, caput vix superantes; articulus 3us conicus, brevissimus. Antennæ late pectinatæ, thorace multo longiores. Pedes validi; tibiæ posticæ calcaribus quatuor longiusculis. Alæ latæ; anticæ apud costam rectæ, apice acuminatæ, margine exteriore vix convexo parum obliquæ; posticæ abdomen non superantes.

Allied to *Parathyris*. *Male.*—Body hardly stout. Proboscis not visible. Palpi moderately long, rather slender, hardly extending beyond the head; third joint conical, very short. Antennæ

deeply pectinated, much longer than the thorax. Legs stout; hind tibiæ with four rather long spurs. Wings broad. Fore wings straight in front, acuminate at the tips, hardly convex and but slightly oblique along the exterior border; second inferior vein nearer to the first than to the third; third nearer to the second than to the fourth. Hind wings hardly extending as far as the abdomen.

### 1. PHECADA CONFINIS.

*Mas.* *Cervina*; *vertex albidus*; *antennæ albidæ, ramis fuscis*; *alæ nitentes, anticæ fasciis tribus latiusculis subundulosis pale cinereis*.

*Male.* Fawn-colour, paler beneath. Vertex of the head whitish. Antennæ whitish, with brown branches. Wings shining. Fore wings with three rather broad slightly undulating pale grayish bands. Length of the body 9 lines; of the wings 28 lines.

*a.* Rio Janeiro. From Mr. Stevens' collection.

### 2. PHECADA? METABUS.

*Corpus cervinum*; *antennæ nigræ*; *alæ fuscæ*.

Antarctia Metabus, *Hüb. Verz. Schmett.* 191, 1966.

Phalæna-Bombyx Metabus, *Cram. Pap. Exot.* i. 117, pl. 74, f. D.

Previously mentioned as one of the *Saturniidæ*. See p. 1381.  
Surinam.

Page 1101

Genus PYDNA.

*Mas.* Corpus sat gracile. Proboscis brevissima. Palpi validi, longiusculi, subtus dense pilosi, caput superantes. Anteunæ late pectinatae. Abdomen alas posticas triente superans. Pedes validi; tibiæ posticæ calcaribus duobus longis apicalibus. Alæ mediocriter latæ; anticæ apud costam rectæ, apice acuminatae; margine exteriore subobliquo.

*Male.* Body rather slender. Proboscis very short. Palpi stout, rather long, extending some distance beyond the head; thickly pilose beneath; third joint elongate, not half the length of the second. Antennæ deeply pectinated, much longer than the thorax. Abdomen extending for about one-third of its length beyond the hind wings. Legs stout; hind tibiæ with two long apical spurs. Wings moderately broad. Fore wings straight in front,

acuminated at the tips, slightly oblique along the exterior border; second inferior vein full six times further from the third than from the first.

### 1. PYDNA TESTACEA.

*Mas. Testacea; caput supra album, bifusciculatum; palpi albidi, supra fusci; abdomen subtus album, lateribus fuscescens; alæ pallide cervinæ, subtus albidae, anticæ apud marginem posticum flavescentes.*

*Male.* Testaceous. Head white above, with a tuft at the base of each antenna. Palpi whitish, brown above, except towards the tips. Abdomen brownish along each side, white beneath. Wings pale fawn-colour, whitish beneath. Fore wings slightly yellowish hindward, white about the exterior border. Length of the body 10 lines; of the wings 22 lines.

Hindostan. In Mr. Saunders' collection.

### Genus BIRETA.

*Mas. Corpus sat gracile. Proboscis non conspicua. Palpi validi, pilosi, porrecti, caput paullo superantes; articulus 3us breviconicus. Antennæ mediocriter pectinatæ. Abdomen alas posticas paullo superans. Pedes validi, pilosi; tibiæ posticæ calcaribus quatuor longis. Alæ latiusculæ; anticæ apud costam subconvexæ, apice acuminatæ, margine exteriore recto sat obliquo.*

*Male.* Body rather slender. Proboscis not visible. Palpi stout, pilose, porrect, extending a little beyond the head; third joint short-conical, not one-fourth of the length of the second. Antennæ moderately pectinated, longer than the thorax. Abdomen extending a little beyond the hind wings. Legs stout, pilose; hind tibiæ with four long spurs. Wings rather broad. Fore wings very slightly convex in front, acuminated at the tips, straight and rather oblique along the exterior border; second inferior vein nearer to the first than to the third.

### 1. BIRETA LONGIVITTA.

*Mas. Testacea; caput et thorax anticus fulva; palpi supra fuscescentes; abdomen supra fuscescens vittis duabus interruptis obscurioribus; alæ anticæ vitta discali subarcuata fasciisque tribus perobliquis guttularibus fulvis; posticæ supra pallidissime fuscæ.*

*Male.* Testaceous. Head and fore part of the thorax somewhat tawny. Palpi brownish above. Abdomen pale brownish above, with a slender interrupted darker stripe along each side. Fore wings with a slender very slightly curved tawny stripe, extending along the whole length, and with three very oblique bands of tawny dots. Hind wings very pale brown above. Length of the body 8 lines; of the wings 20 lines.

Hindostan. In Mr. Saunders' collection.

### Genus EDEBESSA.

*Fæm.* Corpus robustum. Proboscis non conspicua. Palpi brevissimi. Antennæ subpectinatae, thorace paullo longiores. Abdomen alas posticas superans, apice dense lanuginosum. Pedes validi; tibiæ posticæ calcaribus duobus minimis apicalibus. Alæ anticæ longiusculæ, sat angustæ, apud costam subconvexæ; apice vix acuminatæ, margine exteriore perobliquo.

Much resembles the genus *Anodonta*. *Female.*—Body stout. Proboscis not visible. Palpi very short. Antennæ minutely pectinated, a little longer than the thorax. Abdomen extending rather beyond the hind wings, thickly lanuginose at the tip. Legs stout; hind tibiæ with two very minute apical spurs. Fore wings rather long and narrow, very slightly convex in front, hardly acuminate at the tips, extremely oblique along the exterior border; second inferior vein more than twice further from the third than from the first; third more than twice further from the fourth than from the second.

#### 1. EDEBESSA PURENS.

*Fæm.* *Rufa;* antennæ nigrae; thorax fascia antica vittisque duabus nigris, pilis nonnullis albis clavatis; abdomen fuscum; alæ anticæ fuscae, marginibus luteo rufis nigrisque albo conspersis.

*Female.* Bright red. Antennæ black. Thorax with some white clavate hairs, with a black band in front, and with a black stripe on each side. Abdomen brown at the tip. Fore wings brown, mostly bordered with white-flecked black, and also with luteous-red. Hind wings with a luteous fringe; hind part of the exterior border with a black fringe. Length of the body 8 lines; of the wings 22 lines.

a. Rio Janeiro. From Mr. Stevens' collection.

*Page 1122.*

**MECYTHA TRIMACULA.**

The characters of this species are incomplete in the above page in consequence of the state of the specimen there described.

*Mas.* Corpus crassum, dense pilosum. Proboscis non conspicua. Palpi brevissimi; articulus 3us minimus. Antennæ late pectinatæ, thorace paullo breviores. Abdomen alas posticas longe superans. Pedes breves, tibiæ posticæ calcaribus duobus minimis. Alæ latiusculæ, non longæ; anticæ apud costam rectæ, apice rotundatae, margine exteriore subconvexo sat obliquo.

*Male.* Body very stout, thickly pilose. Palpi very short, not extending so far as the head; third joint very small. Antennæ deeply pectinated. Abdomen extending for one-third of its length beyond the hind wings. Legs short, stout. Wings rather broad, not long. Fore wings straight along the costa, rounded at the tips, slightly convex and rather oblique along the exterior border; first and second inferior veins contiguous at the base; third as far from the second as from the fourth.

*Mas.* Obscure fusca; caput et thorax alba; palpi et antennæ nigra; thorax nigro trimaculatus; abdomen e maculis albis trivittatum; pedes albo fasciati; alæ anticæ fasciis latis diffusis canis, lineis undulosis albis, ocellis nonnullis albidis, maculis nonnullis discalibus nigricantibus unaque costali alba.

*Male.* Dark brown. Head and thorax white above. Palpi and antennæ black. Thorax with a black spot on each side, and one in front, which is occasionally obsolete. Abdomen with three stripes of white spots, which occasionally form interrupted bands. Legs with white bands. Fore wings with two broad diffuse hoary bands, which are interrupted by undulating white lines; the outer band is accompanied by a row of whitish ringlets; two or three blackish spots in the disk, and a white costal spot at three-fourths of the length. Hind wings a little paler than the fore wings, with two very slight and slender whitish bands, the one discal, the other submarginal, and composed of small dots. Length of the body 7—9 lines; of the wings 14—17 lines.

*Var. β.* Inner band of the hind wings obsolete.

*Var. γ.* Both bands of the hind wings obsolete.

*Var. ♂.* Blackish spots of the fore wings with ferruginous disks; veins along the exterior border with ferruginous streaks. Bands of the hind wings distinct and moderately broad.

*b—d.* Sydney. Presented by E. Doubleday, Esq.

*e.* Australia. Presented by H. G. Harrington, Esq.

Page 1129.

Genus PERNA?

*Mas.* Corpus breve, robustum, pilosissimum. Palpi breves, pilosissimi. Antennæ sat late pectinatæ. Abdomen alas posticas non superans. Pedes late ciliati. Alæ latæ, non longæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore mediocriter obliquæ.

*Male.* Body short, stout, very hairy. Palpi short, very pilose. Antennæ rather deeply pectinated. Abdomen not extending beyond the hind wings. Legs deeply ciliated. Wings broad, not long. Fore wings straight in front, rounded at the tips, moderately oblique along the exterior border; first and second inferior veins contiguous at the base; third rather remote from the second; fourth more remote from the third, springing from near the base of the wing.

PERNA? COMBINATA.

*Mas.* *Rufo-fusca, subtus pallidior; antennæ pallide fuscæ; abdomen pilis rufescensibus albidisque vestitum; alæ anticæ gutta discali alba, fasciis tribus albis nigrisque, maculisque exterioribus nigris; posticæ pallidiores.*

*Male.* Reddish brown, paler beneath. Body and legs very thickly clothed with hairs. Antennæ pale brown. Abdomen clothed with pale red and whitish hairs. Fore wings with three white and black bands; the first slightly undulating at hardly before one-third of the length; the second and the third zigzag, contiguous in the disk; the second at a little beyond two-thirds of the length of the wing; a row of black spots along the outer margin, and a white discal dot. Hind wings rather paler than the fore wings. Length of the body  $4\frac{1}{2}$  lines; of the wings  $11\frac{1}{2}$  lines.

*a.* Sydney. From Mr. Lambert's collection.

AGISA? BASALIS.

*Mas.* *Cervina; antennæ nigræ: abdomen subluteum; alæ anticæ gutta basali alba, strigaque apud costæ apicem testacea.*

*Male.* Fawn-colour, paler beneath. Antennæ black, mutilated in the specimen described. Abdomen somewhat luteous. Wings a little paler than the thorax. Fore wings with a white basal dot, and with a testaceous streak along the apical part of the costa. Length of the body 5 lines; of the wings 10 lines.

a. Rio Janeiro. From Mr. Stevens' collection.

*Page* 1132.

SEMYRA? SILVERIA.

Mas. *Testacea; alæ fascia submarginali testacea, anticæ lineis obliquis fuscis albidisque, dimidio postico roseo.* Fœm.—  
*Cervina; alæ anticæ strigis transversis nigris et fuscescentibus, macula postica rufescente.*

Phalæna-Bombyx Silveria, *Cram. Pap. Exot.* iv. 134, pl. 359, f. B, C.

Aselgia Silveria, *Hübn. Verz. Schmett.* 192, 1971.

Surinam.

*Page* 1144.

Genus EUCLEA.

Economidea, *Duncan, Nat. Libr.* xxxvii. *Exotic Moths*, 183.

EUCLEA PITHECIUM.

*Cervina; corpus ex parte glaucescens; alæ anticæ glaucescentes, fasciis cervinis.*

Phalæna Pitheciun, *Abbot and Smith, Nat. Hist. Lep. Ins. Georg.* ii. 147, pl. 74.

Larva, *Stoll, Cram. Pap. Exot.* v. pl. 18 f. 1.

Economidea Pitheciun, *Duncan, Nat. Libr.* xxxvii. 183, pl. 21, f. 4.

*Page* 1155.

PAMEA NOTATA.

a. Brazil. From Mr. Mornay's collection.

*Page* 1157.

Genus TADEMA.

Mas. Corpus sat robustum. Proboscis non conspicua. Palpi validi, porrecti, caput sat longe superantes; articulus 3us parvus,

conicus. Antennæ late pectinatæ, thorace multo longiores, apice serratæ. Abdomen alas posticas non superans. Pedes validi, pilosi; tibiæ posticæ calcaribus duobus minutis apicalibus. Alæ latæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore subrecto et subobliquo.

*Male.* Body rather stout. Proboscis not visible. Palpi stout, porrect, extending some distance beyond the head; third joint small, conical. Antennæ much longer than the thorax, deeply pectinated to five-sixths of the length, serrated from thence to the tips. Abdomen extending as far as the hind wings. Legs stout, pilose; hind tibiæ with two minute apical spurs. Wings broad. Fore wings straight in front, rounded at the tips, almost straight and very slightly oblique along the exterior border.

### 1. TADEMA SINENSIS.

*Mas.* *Cana, fusco punctata; alæ anticæ fasciis duabus fuscis, 1a perobliqua furcata, 2a subangulata vix obliqua.*

*Male.* Hoary, slightly flecked with brown. Fore wings with two slender irregular brown bands, which approach each other towards the costa; first band very oblique, emitting a branch to the costa from the middle of its inner side, and with a blackish discal spot on the outer side opposite to the fork and beyond the discal areolet; second band slightly angular, hardly oblique. Length of the body 6 lines; of the wings 14 lines.

*a.* Shanghai, North China. From Mr. Fortune's collection.

### Genus LAGOA.

*Mas.* Corpus robustum, breve, valde hirtum. Palpi brevissimi. Antennæ late pectinatæ, corpus dimidio paullo breviores. Abdomen alas posticas paullo superans. Pedes validi, pilis longis dense hirti; tibiæ posticæ calcaribus apicalibus parvis. Alæ anticæ sat latæ, non longæ, apice rotundatæ, apud costam rectæ.

*Male.* Body stout, short, very pilose. Proboscis obsolete. Palpi very short. Antennæ deeply pectinated, rather less than half the length of the body. Abdomen extending a little beyond the hind wings. Legs stout, thickly clothed with long hairs; hind tibiæ with short apical spurs. Fore wings moderately broad, not long, straight along the costa, rounded at the tips; second inferior vein as far from the first as from the third; fourth proceeding from the base of the wing.

NOTE.—*Mecytha testacea*, p. 1122, may perhaps belong to this genus.

### 1. LAGOA OPERCULARIS.

*Mas. Pallide lutea; caput apud verticem albidum, antice fuscum; abdomen et alæ posticæ testacea; pedes albido pilosi; tarsi nigri; alæ anticæ basi lanuginosæ.*

*Phalæna opercularis, Smith and Abbot, Nat. Hist. Lep. Ins. of Georgia, ii. 105, pl. 53.*

*Male.* Pale luteous. Head whitish on the vertex, brown in front. Antennæ white; branches brown, with white tips. Abdomen and hind wings testaceous. Legs partly clothed with whitish hairs; tarsi black. Fore wings woolly, especially towards the base. Length of the body 6 lines; of the wings 13 lines.

*a.* Georgia. From Mr. Abbot's collection.

### 2. LAGOA PYXIDIFERA.

*Testacea; alæ anticæ lituris nonnullis fuscis nigrisque flexuosis discalibus.*

*Phalæna pyxidifera, Abbot and Smith, Nat. Hist. Lep. Ins. Georg. ii. 107, pl. 54.*

Georgia.

### Genus CANDYBA.

*Mas.* Corpus sat robustum. Proboscis non conspicua. Palpi graciles, porrecti, caput superantes; articulus 3us minutus, conicus. Antennæ thorace multo longiores, late pectinatæ, dimidio apicali serratæ. Abdomen alas posticas vix superans. Pedes sat validi; tibiæ posticæ calcaribus duobus apicalibus longis. Alæ breviusculæ, latiusculæ; anticæ apud costam subrectæ, apice rotundatæ, margine exteriore subobliquo.

*Male.* Body rather stout. Proboscis obsolete. Palpi porrect, slender, extending rather beyond the head; third joint minute, conical. Antennæ much longer than the thorax, deeply pectinated to less than half the length, serrated from thence to the tips. Abdomen hardly extending beyond the hind wings. Legs moderately stout; hind tibiæ with two long apical spurs. Wings rather short and broad. Fore wings nearly straight in front, rounded at the tips, slightly oblique along the exterior border; second inferior vein full twice further from the third than from the first; third about twice further from the fourth than from the second.

## 1. CANDYBA PUNCTATA.

**Mas.** *Candida*; *antennæ ramis testaceis*; *alæ guttis duabus marginalibus subapicalibus nigris*, *anticæ gutta discali nigra*.

**Male.** Pure white, shining. Branches of the antennæ pale testaceous. Wings with two black marginal subapical dots. Fore wings with a black dot on the tip of the discal areolet. Length of the body 5 lines; of the wings 10 lines.

Central Brazil. In Mr. Saunders' collection.

Page 1165.

## DREPANA? SQUALIDA.

**Fœm.** *Fusca*; *alæ anticæ fasciis duabus angulosis arcuatis obscurioribus*, *1a antemedia*, *2a postmedia*; *posticæ cervinæ*, *plaga postica fusca*.

*Prionia squalida* (*Phalæna Sphingoides*. *Platypteric dentata*).  
Geyer, Zutr. Samml. Exot. Schmett. iv. 40, 394, f. 787, 788.

West Indies.

## DREPANA PLAGIA.

**Mas.** *Luteo-testacea*; *alæ fusco ciliatæ*, *anticæ gutta discali fascia obliqua subapicali fuscis*, *posticæ fasciis duabus undulatis fuscis*.

*Ancistrota plagia* (*Phalæna Sphingoides*. *Platypteric rotundata*).  
Hüb. Samml. Exot. Schmett. ii. 9, 107, f. 213, 214.

Surinam.

## DREPANA DREPANULA.

**Fœm.** *Testacea*; *alæ strigis plurimis minimis guttisque nonnullis nigris*, *fascia obliqua discali intus rufa extus cyanea*; *anticæ fascia subbasali arcuata cyanea rufo marginata*, *apice fuscæ*; *posticæ margine intus cyaneo extus rufo*.

*Syssaura drepanula* (*Phalæna Sphingoides*. *Platypteric falcata*).  
Hüb. Samml. Exot. Schmett. ii. 13, 124, f. 247, 248.

Surinam.

## DREPANA? SECURIS.

Fœm. *Straminea; alæ anticæ subhamatæ, apud discum albidae, vitta media apice dilatata margineque postico basali fuscis, puncto apud angulum posticum guttisque apicalibus nigris; posticæ albæ.*

*Psalis securis (Phalæna Sphingoides. Platypteric falcata).* Hüb.  
Samml. Exot. Schmett. iii. 9, 146, f. 291, 292.

Java.

*Page* 1169.

## ROSEMA ZELICA.

*Phalæna-Bombyx Zelica, Stoll, Cram. Pap. Exot. 73, pl. 616, f. 2  
2 C, 2 D.*

*Page* 1170.

## ROSEMA EPIGENA.

*Phalæna-Bombyx epigena, Stoll, Cram. Pap. Exot. 72, pl. 16,  
f. 2 D.*

*Page* 1184.

## OXYTENIS? EPHONIA.

*Fusca; alæ lineis duabus transversis duplicatis obscurioribus, interiore in posticis simplici; anticæ subhamatæ, guttis duabus discalibus nigris.*

*Phalæna-Bombyx Ephonia, Stoll, Cram. Pap. Exot. v. 159, pl. 35,  
f. 6; pl. 19, f. 5 (larva).*

Surinam.

## Genus APONA.

*Fœm. Corpus crassum. Palpi brevissimi. Antennæ longæ, mediocriter pectinatae, corpore paullo breviores. Pedes validi, late ciliati; tibiæ posticæ calcaribus duobus apicalibus mediocriter longis. Alæ latiusculæ, marginibus exterioribus subundulosis; anticæ subacuminatae, vix falcatæ.*

*Female. Body thick. Palpi very short. Antennæ long, moderately pectinated, as long as three-fourths of the body. Abdomen not extending near so far as the hind wings. Legs stout,*

deeply ciliated; hind tibiæ with two moderately long apical spurs. Wings rather broad; exterior borders slightly undulating. Fore wings slightly acuminate at the tips, but hardly falcated; costa convex towards the tip; three inferior veins; first and second nearly contiguous at the base; third remote.

### 1. APONA PALLIDA.

Fœm. *Albida; antennæ fusco ramosæ; pedes fulvescentes; alæ fasciis nonnullis obliquis subundulosis cervinis, anticæ fasciis duabus obscurioribus subrectis maculisque exterioribus fuscis.*

*Female.* Whitish. Antennæ with brown plumes. Legs mostly pale tawny. Wings with some slight undulating oblique fawn-coloured bands. Fore wings with two darker nearly straight bands, the outer one accompanied on the outer side by a row of irregularly alternately long and short brownish spots; a brown discal dot; a large brown mark by the exterior border towards the tip of the wing. Length of the body 10 lines; of the wings 36 lines.

a. Himalaya Mountains. From Mr. Leadbeater's collection.

### Genus OGOA.

*Mas.* Corpus sat gracile. Proboscis non conspicua. Palpi brevissimi. Antennæ mediocriter pectinatæ, thorace multo longiores. Pedes graciles, longiusculi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ latæ, subvestitæ, semihyalinæ; anticæ apud costam vix convexæ, apice rotundatae, margine exteriore recto sat obliquo; posticæ abdomen paullo superantes.

*Male.* Body rather slender. Proboscis not visible. Palpi very short. Antennæ moderately pectinated, much longer than the thorax. Abdomen extending to three-fourths of the breadth of the hind wings. Legs slender, rather long; hind tibiæ with two very minute apical spurs. Wings broad, very thinly clothed, semihyaline. Fore wings hardly convex in front, rounded at the tips, straight and rather oblique along the exterior border; veinlet which intersects the discal areolet forked at three-fourths of its length; second inferior vein more than twice further from the third than from the first; third much further from the fourth than from the second.

## 1. OGUA SIMPLEX.

Mas. *Pallide lutea; antennæ nigrae; tibiæ tarsiique nigricantia; alæ anticæ linea costali antica nigra.*

*Male.* Pale luteous. Antennæ black. Tibiæ and tarsi blackish. Wings like the body in colour. Fore wings with a black line in front of the costa. Length of the body 11 lines; of the wings 32 lines.

a. Port Natal. From M. Guenzius' collection.

Page 1194.

## LONOMIA ALBICUTTA.

Mas. *Cervina aut roseo-cervina aut luteo-testacea; palpi pedesque ex parte fusci; antennæ testaceæ; abdomen testaceum aut albidum; alæ fascia angusta albida extus aut utrinque fusco marginata, subtus guttis duabus nigris albido cinctis, anticæ guttis duabus discalibus albis.*

Lasiocampa bigutta, MSS.

*Male.* Bright fawn-colour. Palpi and legs mostly brown above. Antennæ testaceous. Abdomen testaceous. Wings with a very indistinct lilac bloom, and with a slender oblique whitish band, which is bordered with brown on the outer side; under side slightly marked with black along the costa and towards the exterior border, and with two black discal dots, which have whitish borders. Fore wings with two white brownish-bordered discal dots. Length of the body 9—10 lines; of the wings 28—30 lines.

Var.  $\beta$ . Abdomen whitish.

Var.  $\gamma$ . Thorax and wings towards the base rosy fawn-colour.

Var.  $\delta$ . Luteous-testaceous. Band of the wings with a somewhat diffused brown border on each side. Fore wings with an indistinct brownish band near the base.

a. Brazil. Presented by E. Doubleday, Esq.

b—d. Brazil. From Mr. Stevens' collection.

e. Brazil. From M. Becker's collection.

## Group 2.

*Mas. Corpus robustum. Palpi porrecti, pilosi, caput non superantes. Antennæ late pectinatæ, thorace paullo longiores. Pedes validi, subpilosi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ sat latæ; anticæ apud costam rectæ, apice acuminatæ, margine exteriore recto sat obliquo; posticæ abdomen paullo superantes.*

*Male.* Body thick. Palpi porrect, pilose, hardly stout, not extending beyond the head. Antennæ deeply pectinated, a little longer than the thorax. Abdomen extending nearly as far as the hind wings. Legs stout, slightly pilose; hind tibiæ with two very minute apical spurs. Wings rather broad. Fore wings straight in front, angular at the tips, straight and rather oblique along the exterior border; second inferior vein nearly thrice further from the third than from the first.

#### LONOMIA VENUSTA.

Mas. *Cervina, subitus testacea; antennæ testaceæ; thorax antice flavescentis; alæ apud margines testacea, fasciis linearibus fuscentibus; anticæ macula discali alba fusco marginata, subitus apud costam obscure cervinæ macula discali fusca; posticæ gutta discali fusca.*

*Male.* Bright fawn-colour, testaceous beneath. Antennæ testaceous. Thorax pale yellow in front. Legs testaceous beneath. Wings testaceous beyond the very slender curved exterior brownish bands, which are interrupted beneath; the outer one is almost obsolete above, as is also the inner one beneath. Fore wings with a white discal spot, which has a brown central dot, is bordered with brown, and is wholly brown beneath, where the space about it and towards the costa is dark fawn-colour. Hind wings with a brown discal dot, which is darkest beneath. Length of the body 10 lines; of the wings 32 lines.

a. Chili. From Mr. Children's collection.

#### LONOMIA CYBELE.

*Alæ concolores fulvæ, fusco punctatæ striga nigra, anticæ maculis tribus, posticæ unica fenestratis.*

Phalæna Penelope, *Cram. Pap. Exot.* i. 70, pl. 45, f. A.?

Bombyx Cybele, *Oliv. Enc. Méth. Ins.* v. 36, 43.

Cayenne. Surinam.

#### LONOMIA ACHELOUS.

*Alæ ferrugineæ, omnes fascia anticæque puncto albis.*

Bombyx Acheloüs, *Fabr. Sp. Ins.* ii. 172, 25; *Mant. Ins.* ii. 110, 28. *Oliv. Enc. Méth. Ins.* v. 34, 28.

Phalæna Acheloüs, *Cram. Pap. Exot.* ii. 22, pl. 111, f. A.

Phalæna-Bombyx Attacus Acheloüs, *Gmel. ed. Syst. Nat.* i. 5, 2406, 474.

Eacles Acheloë, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoïdes Echidnæ Communiformes*), 153, 1604.

West Indies.

#### LONOMIA PENELOPE.

*Alæ flavescentes, fusco irroratæ, ocello centrali fenestrata.*

Bombyx Penelope, *Fabr. Gen. Ins. Mant.* 278; *Sp. Ins.* ii. 171, 19; *Mant. Ins.* ii. 109, 21. *Oliv. Enc. Méth. Ins.* v. 30, 24.

Phalæna Penelope, *Cram. Pap. Exot.* i. 70, pl. 45, f. A.

Phalæna-Bombyx Attacus Penelope, *Gmel. ed. Syst. Nat.* i. 5, 2407, 481.

Eacles Penelope, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoïdes Echidnæ Communiformes*), 153, 1603.

Surinam?

Page 1195.

#### LONOMIA? DOMINA.

*Cervino-fulva; alæ fascia tenui obliqua exteriore fusca, striga antica exteriore excisa limpida.*

Phalæna-Attacus Domina, *Cram. Pap. Exot.* iv. 28, pl. 304, f. B.

Eopia Domina, *Hübn. Verz. Schmett.* (*Phalænæ Vere Lachneides Vulgares*), 188, 1935.

Surinam.

#### LONOMIA? CYNIRA.

*Testacea, alæ punctis nigricantibus, fasciis duabus nigris, 1a antemedia arcuata, 2a recta; anticæ macula subcostali media ocellari nigra.*

Phalæna-Bombyx Cynira, *Cram. Pap. Exot.* ii. 89, pl. 152, f. C.

Eacles Cynira, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoïdes Echidnæ Communiformes*), 154, 1605.

Surinam.

Page 1342.

#### MIMALLO VIOLACEA.

*Violacea; alæ ciliis nigris testaceo marginatis, anticæ apud marginem exteriorem pallidiores.*

Phalæna-Bombyx violacea, *Anon. Ins. Surinam*, i. 67, pl. 30.

Surinam.

*Page 1370.*

**DIRPHIA ? RIPHEA.**

*Ferruginosa* ; *alæ lineis transversis obliquis undulosis testaceis, anticæ plaga maxima discali nigra albido marginata.*

Phalæna-Bombyx Riphea, *Cram. Pap. Exot.* iv. 220, pl. 395, f. E. Drury, *Ins.* ii. pl. 14, f. 5.

Tolype Riphea, *Hübn. Verz. Schmett.* 189, 1944.

Surinam.

*Page 1472.*

**ERIOGASTER CINERASCENS.**

*Fœm.* *Fusca* ; *antennæ testaceæ, subpectinatæ, thorace multo breviores* ; *abdomen apice cervinum* ; *alæ cinereo-fuscae, anticæ strigis nonnullis discalibus nigricantibus fasciisque tribus undulosis albidis.*

*Female.* Brown. Antennæ testaceous, minutely pectinated, much shorter than the thorax. Abdomen fawn-colour at the tip. Wings grayish brown. Fore wings with some blackish marks in the disk, and with three whitish undulating bands, second band more oblique than the first, less oblique than the third. Length of the body 11 lines; of the wings 25 lines.

*a. Bahia.*

**ERIOGASTER LIGNOSA.**

*Fœm.* *Fusca* ; *antennæ subpectinatæ, thorace longiores* ; *abdomen alas posticas triente superans* ; *pedes graciles* ; *alæ breviusculæ, latiusculæ, fasciis angustis obliquis undulatis cinereis.*

*Female.* Brown. Antennæ slightly pectinated, rather longer than the thorax. Abdomen extending for about one-third of its length beyond the hind wings. Legs slender. Wings rather short and broad. Fore wings with slight indistinct oblique undulating cinereous bands, a little rounded at the tips, slightly oblique along the exterior border. Length of the body 9 lines; of the wings 18 lines.

*a. Tasmania.* Presented by R. Butler, Esq.

Page 1507.

Genus OCINARA.

*Mas.* Corpus vix robustum. Proboscis brevissima. Palpi brevissimi; articulus 2us lo longior; 3us brevior. Antennæ late pectinatæ, corporis triente non longiores. Abdomen alas posticas non superans. Pedes validi, longe pilosi. Alæ latæ; anticeæ vix acuminatæ.

Allied to *Bombyx Mori*. *Male*.—Body hardly stout. Proboscis very short. Palpi very short; second joint longer than the first; third shorter. Antennæ deeply pectinated, not more than one-third of the length of the body. Abdomen extending as far as the hind wings. Legs stout, clothed with long hairs. Wings broad. Fore wings hardly acuminated, nearly straight in front, rounded at the tips, slightly oblique along the exterior border; three inferior veins; second more than twice further from the third than from the first.

1. OCINARA DILECTULA.

*Mas. Albida*; caput rufo-fulvo varium; thorax fascia nonnunquam interrupta fulva; abdomen subtestaceum, apice fulvum; pedes antici supra rufo-fulvi; alæ venis albis.

*Male*. Whitish. Head above on each side and beneath, palpi and fore legs above reddish tawny. Thorax in front with a tawny spot on each side, or with a tawny band; some tawny hairs on the hind part. Abdomen with a slight testaceous tinge; tip tawny. Wings unvaried; veins white. Length of the body 4 lines; of the wings 10 lines.

*a, b. Java*. From the East India Company's collection.

Page 1520.

COSSUS AMBIGUUS.

*Mas. Fusca*; alæ anticeæ fasciis tribus aut quatuor incompletis informibus albidis; posticeæ albidae, nigro venosæ, fusco marginatæ.

*Hypopta ambigua*, (*Phalæna fodicans*. *Teredo crassa*). *Hüb.*  
*Samml. Exot. Schmett.* i. 25, 73, f. 145, 146.

Paraguay.

## COSSUS? ZILIANTE.

Previously mentioned as one of the *Notodontidae*. See p. 1078.

*Page* 1548.

## Genus ANTIORA.

**Mas.** Corpus robustum, lineare, pilosissimum. Proboscis distincta, brevis, debilis. Palpi porrecti, breves, graciles, caput non adæquantes; articulus 3us minutus, acuminatus. Antennæ subpectinatae, corpore paullo breviores, ramis pubescentibus. Abdomen alas posticas plus dimidio superans. Pedes validi, pilosi; tibiæ posticæ calcaribus quatuor longis. Alæ angustæ; anticæ apud costam rectæ, apice rotundatae, margine exteriore perobliquo.

**Male.** Body stout, linear, very pilose. Proboscis distinct, short, feeble. Palpi porrect, short, slender, not extending so far as the head; third joint, minute, acuminate. Antennæ slightly pectinated, about three-fourths of the length of the body; branches thickly pubescent. Abdomen extending for more than half its length beyond the hind wings. Legs stout, thickly clothed with long hairs. Wings narrow. Fore wings straight in front, rounded at the tips, very oblique along the exterior border; first and second inferior veins contiguous at the base; third at some distance from the second; fourth very remote. Frenulum distinct.

## ANTIORA SUBFULVA.

*Fusca, albo aspersa; antennæ nigræ; thorax albo bifasciculatus; abdomen apice albido pilosum, subtus luteo hirtum; pedes pilis albis luteisque densissime hirti; alæ posticæ nigro-cinereæ, antice albæ.*

Brown, sprinkled with white. Antennæ black. Thorax with a tuft of white near the base of each hind wing. Abdomen blackish brown, with whitish hairs at the tip, and with luteous hairs beneath for nearly half the length from the base. Legs very thickly clothed with luteous hairs; fore and middle tibiæ very thickly clothed with white hairs. Fore wings but slightly plumose. Hind wings blackish gray, with white fore borders. Length of the body 7 lines; of the wings 18 lines.

*a.* Brazil. From M. Becker's collection.

*Page 1579.*

Genus CIBYRA.

*Mas.* Corpus sat validum. Proboscis non conspicua. Palpi porrecti, breves, validi, caput vix superantes; articulus 3us minutus, conicus. Antennæ sat late pectinatæ, thorace breviores. Pedes validi, pilosi. Alæ longiusculæ, sat angustæ; anticæ apud costam subrectæ, apice vix acuminatæ, margine exteriore sat obliquo.

*Male.* Body moderately stout. Proboscis not visible. Palpi porrect, short, stout, extending very little beyond the head; third joint minute, conical. Antennæ rather deeply pectinated, shorter than the thorax. Legs stout, pilose. Wings rather long and narrow. Fore wings almost straight in front, slightly acuminated at the tips, rather oblique along the exterior border; structure of the veins resembling that of *Hepialus*.

CIBYRA FERRUGINOSA.

*Mas.* Ferruginea; antennæ fuscae; alæ antice fasciis nonnullis fuscis vix determinatis; posticæ fuscae, apicibus ciliisque fulvis.

*Male.* Ferruginous. Antennæ brown. Fore wings with irregular indistinct brown bands. Hind wings brown; tips and ciliæ mostly tawny. Length of the body 6? lines; of the wings 14 lines.

*a.* Brazil. From Mr. Stevens' collection.

*Page 1621.*

TRICHELA TOLUMNENSIS.

Euchromia hirsuta, p. 208.

*Page 1624.*

HIRA FOLLETII.

Glaukopis Folletii, Boisd. MSS.

*Page 1625.*

For This species, &c., read This species chiefly differs from *H. Sperchius* by the abdomen without a white band, and by the paler colour on the wings.

*Page 1718.*

DECIMIA METEUS.

Sphinx adscita Meteus, *Cram. Pap. Exot.* iv. 109, pl. 347, f. B.  
Decimia bicolora, p. 1718.

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FURTHER ADDENDA.

*Page 8.*

NYCTALEMON HECTOR.

"*N. fusculo-cinereus, alis anticis posticisque fascia recta obliqua alba; alis anticis margine basali nigro, albo subundulato; alis posticis ad apicem externam nigro plagiato seu subfasciato.*"

Nyctalemon Hector, White.

"A smaller species than *N. Patroclus*. Above of a darkish ashy brown, with a white oblique band running through both wings, rather wider on hind wings; tailed much as in *Patroclus*, the inner tail proportionally longer; inner edge of lower wing blotched and barred with black, the margin of exterior angle blotched and somewhat barred with black."—White.

a. Borneo. From Capt. Brooke's collection.

*Page 22.*

CASTNIA PELASGUS.

d. New Grenada. From Mr. Stevens' collection.

## Page 46.

## AGARISTA? MICACEA.

*Alba ; caput vitta nigro-fusca argenteo guttata ; palpi nigro-fusci, albo bifasciati ; thorax fuscus, albo quadrivittatus ; abdomen albo vittatum ; alæ anticæ fuscæ, vitta brevi fascia que brevi lata obliqua albis strigisque quatuor cyaneis ; posticæ fusco late marginatae.*

White. Head with a blackish brown stripe, which contains a silvery dot. Palpi blackish brown, with two white bands. Antennæ blackish brown, white at the base. Thorax brown, with four white stripes. Abdomen with a brown discal stripe. Legs varied with brown, partly luteous. Fore wings brown, with a short white stripe widening from the base to the middle and accompanied by two blue streaks, and with a short broad oblique white band, which latter has also a bluish streak along each side of it. Hind wings with broad brown borders. Length of the body 7 lines; of the wings 18 lines.

a, b. Sierra Leone. Presented by the Rev. D. F. Morgan.

## AGARISTA? HESPEROIDES.

*Nigro-fusca ; pectus flavo quadrivittatum ; abdomen e guttis flavis trivittatum, apice luteum ; alæ anticæ basi (subtus præsertim) flavescentes, maculis duabus discalibus una flava altera interrupta lutea ; posticæ dimidio fere basali flava.*

Blackish brown. Antennæ wanting. Wings paler beneath, in shape somewhat resembling those of a *Hesperia*; fore wings towards the base indistinctly yellowish above, much more distinctly so beneath, with the exception of the borders of the veins. Hind wings yellow for nearly half the length from the base. Length of the body 6 lines; of the wings 20 lines.

a. Rio Janeiro. From Mr. Stevens' collection.

## Page 47.

## EUSEMIA MACULATRIX.

Mas. *Nigra, caput et thorax albo guttata ; abdominis segmenta flavo-cincta ; alæ anticæ gutta basali alba, fasciis tribus incompletis macularibus luteis ; posticæ fascia obliqua interrupta margineque nigris, gutta subapicali flava.*

*Eusemia maculatrix*, var. ♀ p. 47.

*Heraclia vetula*, (*Phalæna Vera*, *Callimorpha variegata*). Geyer,  
*Zeitr. Samml. Exot. Schmett.* 17, 329, f. 657, 658.

Java.

*Page 53.*

**EUSEMIA MELITE.**

*b.* Sumatra. From Sir Stamford Raffles' collection.

**EUSEMIA CONNEXA.**

*Nigra*; *caput apud oculos flavum, subtus album*; *thorax antice flavo quadrimaculatus*; *abdominis segmenta marginibus posticis luteo fasciatiss*; *alæ anticæ flavo maculatæ, posticæ rufæ nigro marginatæ et semifasciatæ*.

Black. Head yellow along the eyes above, white beneath. Palpi with a white spot on the outer side. Thorax with four yellow spots in front. Hind borders of the abdominal segments with luteous bands, which are broadest beneath. Fore wings with six yellow spots and four yellow dots; one dot at the base; one spot near it; three oblique bands in the disk, the first of two, the second of three spots, the third of three dots. Hind wings red, with irregular black borders, which are broadest behind the tips, and with a black stripe, which is shortened in front, and connected with the hind border by a black streak. Length of the body 8 lines; of the wings 22 lines.

*a.* Java. From the East India Company's collection.

**EUSEMIA BAMBUINA.**

*Nigra*; *thorax antice ochraceo fasciatiss*; *abdomen apice ochraceum*; *alæ anticæ cyaneo strigatæ et trinotatæ, macula apicali ochracea*; *posticæ ochraceo late marginatæ*.

*Noctua bambucina*, *Eschscholtz, Kotzebue Reise*, 219, pl. 11, f. 30.

*a.* Ceram. From Madame Ida Pfeiffer's collection.

*b.* Philippine Islands. From Mr. Cuming's collection.

## EUSEMIA MOLLIS.

*Glauco-viridis; abdomen pallide luteum; pedes testaceo tomentosi; alæ nigro maculatæ, apices versus nigræ maculis glauco-viridibus.*

Glaucous-green. Proboscis piceous. Antennæ black. Abdomen pale luteous. Legs with testaceous tomentum. Wings with large round black spots, black with glaucous-green spots towards the tips. *Male*.—Abdomen with brown bands; sexual appendages large. *Female*.—Abdomen luteous, black towards the base. Length of the body 8—11 lines; of the wings 24—26 lines.

- a. East Indies. From Mr. Cuming's collection.
- b. Malacca. From Mr. Wallace's collection.

Page 54.

## EUSEMIA? CRESCENS.

*Purpureo-nigra; caput albo bivittatum; thorax flavo albo biguttatus; alæ anticæ squamulis nonnullis basalibus et discalibus cyaneis, guttis duabus basalibus maculisque tribus discalibus flavo-albis; posticæ macula una discali flavo-alba.*

Purplish black. Head with a white mark on each side beneath the eye. Proboscis testaceous. Antennæ wanting. Thorax with two yellowish white dots on each side. Fore wings with a few blue spangles at the base and in the discal areolet, with two yellowish white dots at the base, and with three discal yellowish white spots, which successively increase in size, the exterior one transverse, oblong, and fully as large as the first and second together. Hind wings with one discal spot of the same hue. Length of the body 6 lines; of the wings 18 lines.

- a. Mexico. From Mr. Glennie's collection.

## Genus ARYCANDA.

*Fæm.* Corpus sat gracile. Proboscis non conspicua. Palpi validi, breves, arcuati, ascendentæ, obtusi; articulus 3us minimus. Antennæ sat validæ, subsetosæ, corporis dimidio longiores. Abdomen alas posticas paullo superans. Pedes graciles; tibiæ posticæ calcaribus quatuor longis. Alæ amplæ; anticæ apud costam subrectæ, apice rotundatæ, margine exteriore sat obliquæ.

*Female.* Body rather slender. Proboscis not visible. Palpi stout, short, curved, ascending, obtuse; third joint very small. Antennæ rather stout, minutely setose, more than half the length of the body. Abdomen extending a little beyond the hind wings. Legs slender; hind tibiæ with four long spurs. Wings ample. Fore wings nearly straight in front, rounded at the tips, rather oblique along the exterior border; first and second inferior veins nearly contiguous at the base; third remote; discal areolet intersected by a primary vein.

This genus has some affinities with the *Lithosiidæ*, and with the *Pyralites* as well as with *Eusemia*.

### 1. ARYCANDA MACULOSA.

*Fœm.* *Viridi-cinerea*; *antennæ nigrae*; *thorax fascia interrupta antica nigra*; *abdomen testaceum*; *alæ fasciis septem macularibus nigris*.

*Female.* Greenish cinereous. Antennæ black. Thorax with a black interrupted band in front. Abdomen testaceous. Wings with seven macular black bands, the spots mostly increasing in size outwards, and the seventh or marginal band composed of elongated spots. Length of the body 9 lines; of the wings 26 lines.

*a.* Sumatra. From Sir Stamford Raffles' collection.

Page 115.

### Genus HETEROGYNIS.

“*Mas.* Corpus gracile. Palpi pilis celati. Antennæ longiores, barbulis haud spissis tenui pectinate. Alæ elongatæ; antennæ ad apices valde rotundatae. *Fœmina* vix à larva discrepans.

“*Copulatio super involucrum.* Ovorum partus in pupa.

“*Larvæ vaginis orbatae*; *pupæ integumento sericeo, ovoidi inclusæ*.

“*Hoc genus a Psychidis ad Zygænides larvis transire videtur.*”—Bruand.

Heterogynis, Ramb. Ann. Soc. Ent. Fr. v. 584. Bruand, Monogr. Psych. 28, 114.

### 1. HETEROGYNIS PENELLA.

*Subdiaphana, fusco rufescens, pallida, venis obscurioribus, tenuibus; antennæ nigricantes, barbulis parum elongatis, apices versus parum decrescentes.*

Heterogynis Penella, *Ramb. Ann. Soc. Ent. Fr.* v. 586.

Heteroginisa Penella, *Bruand, Monogr. Psych.* 29, 11, pl. 1, f. 11.

Var. ? “*Alæ fusco rufescentes pallidæ, subdiaphanæ; antennæ nigrae, pectinatae, elongatae, H. paradoxæ paululum latiores.*”

Heterogynis erotica, *Graslin, Ann. Soc. Ent. Fr. 2me Sér.* viii. 396, 2, pl. 10, f. 4—7.

Germany. France. Spain.

## 2. HETEROGYNIS PARADOXA.

H. Penella *valde major, pallidior, subdiaphana; antennæ breviores; alæ anticae paullulo angustiores; alæ pallide fusco-rufescentes, semihyalinæ, parce pilosæ; antennæ setiformes, pectinatae, elongatae.*

Heteroginisa paradoxella, *Bruand, Monogr. Psych.* 31, 12, pl. 1, f. 12.

Seirra Nevada.

a. Spain. Presented by Benjamin Frend, Esq.

## 3. HETEROGYNIS AFFINIS.

H. Penella *paullulo minor, obscurior; corpus nigrum; alæ nigrae, barbulis elongatis, ad apices sensim decrescentes.*

Heterogynis affinis, *Ramb. Ann. Soc. Ent. Fr.* v. 586.

Var. Antennæ longiores? Heterogynis hispana, *Ramb. Ann. Soc. Ent. Fr.* v. 586.

Heteroginisa affiniella, *Bruand, Monogr. Psych.* 31, 13, pl. 1, f. 13.

South France. Spain.

*Page 109.*

## PROCRIS COGNATA.

This species is accidentally mentioned previously under the same name in page 107.

*Page 180, 1614.*

## EURATA SERICARIA.

*Nigra; thorax antice flavo postice coccineo pilosus; alæ basi flavæ, anticae fasciis duabus discalibus vittaque costali abbreviatis olbis, posticæ macula lunata alba; abdomen albo annulatum.*

*Glaukopis sericaria*, *Perty*, *Del. Anim. Artic.* 159, pl. 31, f. 14.  
Brazil.

*Page 222.*

Genus SYNTOMEIDA.

*Syntomeida*, *Harris*.  
*Hippola*, p. 222.

*Page 223.*

SYNTOMEIDA IPOMÆÆ.

*Ochracea*; *alæ anticæ nigro-virides flavo-albo quinque maculatae*; *posticæ nigro-violaceæ*, *macula basali hyalina*; *caput et antennæ nigra*, *illum ochraceo maculatum*; *vittæ duæ humerales*, *macula thoracica postica transversa*, *abdominisque incisuræ nigræ*; *pedes nigro-violacei*; *coxæ subtus femorumque macula*, *ochraceæ*.

*Sesia Ipomææ*, *Œmller*.

*Glaukopis* (*Syntomeida*) *Ipomææ*, *Harris*, *Descr. Cat. N. Amer. Sphin.* 36, 1.

*Euchromia ferox*, *var.?* p. 223.

"Fore wings greenish black, with three yellowish white dots near the front margin, and two others close together beyond the middle; hind wings violet-black, with a transparent colourless spot at the base; body tawny-orange; antennæ and head black, the latter spotted with orange; a broad stripe on the shoulders covers, a transverse spot on the thorax behind, and the incisures of the abdomen black; legs violet-black; coxæ beneath, and a spot on the thighs orange-coloured."

Georgia.

*Page 278.*

EUCHROMIA? JYNX.

Fœm. *Nigra*, *cyaneo trivittata*; *alæ anticæ vitta basali postica fascia que lata obliqua aurantiacis*, *apice albæ*; *posticæ subtus cyaneo binotatae*.

*Calosoma Jynx* (*Sphinx papilionoides*, *Glaukopis amyla*). *Geyer*, *Zutr. Samml. Exot. Schmett.* 39, 391, f. 781, 782.

Java.

*Page* 303.

**EPHIALTIAS VITTULA.**

Ephialtias vittula, *Geyer, Zutr. Samml. Exot. Schmett.* 15, 133, f. 265, 266.

Josia Adiante, p. 303.

Brazil.

*Page* 347.

**PERICOPIS AMPHISSA.**

Fœm. *Lutea ; corpus nigro vittatum ; thorax albo guttatus ; alæ nigro-venosæ ; anticæ luteo-testaceæ, fasciis duabus obliquis, 1a antemedia, 2a postmedia postice dilatata apiceque nigris ; posticæ margine nigro luteo guttato.*

Epistome Amphissa (*Phalæna Vera, Callimorpha variegata*).  
*Geyer, Zutr. Samml. Exot. Schmett.* 35, 377, f. 753, 754.

Var. *Pericopis subguttata*, p. 347.

Brazil.

*Page* 373.

**Genus CYLLOPODA.**

*Mas. Pedes postici breves, spuri.*

*Cyllopoda, Dalman.*

**CYLLOPODA CLAUDICULA.**

*Alæ atræ ; anticæ areola baseos triangulari fasciaque transversa, posticæ vittis duabus, saturate flavis ; abdomen fuscum, linea laterali gemina.*

*Bombyx (Cyllopoda) claudicula, Dalm. Anal. Entom.* 102.

Brazil.

*Page* 512.

**LITHOSIA NIVEA.**

Fœm. *Candida ; caput supra nigrum, antice luteum ; palpi lutei, apice nigri ; antennæ fulvæ, subsetosæ ; thorax iridescentis ; abdomen supra testaceum ; pedes lutei, antici nigro vittati ; alæ nitentes.*

*Female.* Pure white. Head black above, luteous in front. Proboscis tawny. Palpi luteous, with black tips. Antennæ tawny, minutely setose, about three-fourths of the length of the body. Thorax with iridescent lustre. Abdomen testaceous above. Legs luteous; fore legs striped with black. Wings shining. Length of the body 6 lines; of the wings 18 lines.

Brazil. In Mr. Saunders' collection.

#### LITHOSIA NIGRIPARS.

Mas. *Albida*; *caput et thorax anticus testacea*; *antennæ fulvæ*; *palpi apice nigri*; *femora tibiaeque supra tarsique nigricantia*; *alæ anticæ subtus pallidissime fuscæ*, *ad costam nigricantes*.

*Male.* Whitish. Head, proboscis and fore part of the thorax testaceous. Antennæ tawny, minutely setose, white at the base. Palpi with black tips. Femora and tibiae above and tarsi blackish. Fore wings very pale brown beneath, blackish along the costa. Length of the body 6 lines; of the wings 16 lines.

Hindostan. In Mr. Saunders' collection.

#### Page 552.

#### BIZONE GUTTIFERA.

Fœm. *Alba*; *palpi ex parte fusci*; *thorax fascia antica vittisque duabus lateralibus luteis*; *alæ anticæ luteo quadrifasciatæ*, *apud discum nigro triguttatæ*; *posticæ ex parte subsetaceaæ*.

*Female.* White. Proboscis testaceous. Palpi partly brown. Thorax with a luteous band in front, and with two slight luteous lateral stripes. Fore wings with four luteous bands, and with three black discal dots between the second band and the third. Hind wings slightly and partly tinged with testaceous. Length of the body 4 lines; of the wings 12 lines.

a. Landoor, N. W. Himalaya. Presented by General Hearsay.

#### Page 564.

#### RUSCINO MNEA.

Phalæna (Noctua) Menea, *Drury*, App. iii. *Ill. Exot. Ins.* iii. 4, pl. 3, f. 2.

Arctia? Menea, *Westw. ed. Drury*, iii. 4, pl. 3, f. 2.

Brazil.

## Page 574.

## 2. CALLIMORPHA? MODESTA.

*Ferruginosa*; *abdomen rufescens*; *alæ anticæ striga costali apicali rubra*; *posticæ rufescentes*.

Phalæna modesta, *Cram. Pap. Exot.* ii. 28, pl. 115, f. C.

Tyria modesta, *Hübn. Verz. Schmett.* 166, 1718.

Surinam.

## Page 597.

## ARCTIA QUENSELII?

Fœm. *Nigra*; *thorax testaceo quadrivittatus*; *abdomen testaceo bivittatum*; *alæ anticæ vittis luteis apices versus furcatis et confluentibus*; *posticæ vittis testaceis apice connexis*.

Arctia Quenselii (*Phalæna Vera*, *Hypercompa colorea*). Geyer,  
Zutr. Samml. Exot. Schmett. 14, 424, f. 847, 848.

Arctia gelida? p. 611.

Labrador.

## Page 610.

## ARCTIA PHYLLIRA.

Euplagia Phyllira (*Phalæna Vera*, *Callimorpha variegata*). Geyer,  
Zutr. Samml. Exot. Schmett. ii. 9, 108, f. 215, 216.

## Page 613.

## ARCTIA? SACRIFICA.

*Nigro-fusca*; *thorax antice flavo fasciatus*; *abdomen e maculis viridibus bivittatum*, *apice coccineum*; *alæ anticæ vitta discali rosea apicem versus trifurcata*; *posticæ guttis marginalibus albis*, *vittisque posticis*, *1a intus abbreviata albida*, *2a completa coccinea*.

Eucharia sacrificia, (*Phalæna Vera*, *Hypercompe colorea*). Geyer,  
Zutr. Samml. Exot. Schmett. iii. 21, 237, f. 473, 474.

Ypanema.

*Page* 651.

**HYPERCOMPA LECONTEI.**

*Var.?* *Callimorpha militaris*, *Harris*, *Treat. Ins. N. Engl.* 243; *Ed.* 2, 264.

*Page* 669.

**SPILOSOMA CUNEA.**

*Mas.* *Alba*; *abdomen apice testaceum*; *alæ anticæ fasciis quatuor incompletis guttularibus fuscis*, *2a 3aque angulatis postice approximatis*.

*Cycnia Cunea* (*Phalæna Vera*, *Hypercompe pallida*). *Geyer*, *Zutr. Samml. Exot. Schmett.* iii. 8, 203, f. 405, 406.

**SPILOSOMA EGLE.**

*Euchætes Egle*, *Harris*, *Treat. Ins. N. Engl.* 257; *Ed.* 2, 277.

*Page* 679.

**SPILOSOMA TRUNCATUM.**

*Mas.* *Cervina*; *palpi supra nigri*; *abdomen luteum, e maculis nigris trivittatum*; *alæ anticæ linea nigricante, e basi ad medium extensa*; *posticæ testaceæ, marginibus latis cervinis*.

*Male.* Fawn-colour, paler beneath. Palpi black above. Antennæ black. Abdomen luteous, with black transverse dorsal spots, and with black lateral dots. Fore wings with a blackish line, which extends from the base to the discal areolet. Hind wings testaceous, with broad fawn-coloured borders. Length of the body 6 lines; of the wings 15 lines.

*a.* Cape. From M. Dregé's collection.

*Page* 682.

**CYCNIA BUDA.**

*Mas.* *Alba*; *alæ anticæ puncto discali fusco*.

*Cycnia Budea* (*Phalæna Vera*, *Hypercompe pallida*). *Hubn.* *Samml. Exot. Schmett.* ii. 31, 194, f. 387, 388.

Georgia and Florida.

*Page* 686.

**ALPENUS AEQUALIS.**

*b, c. Congo.* Presented by Sir J. Richardson.

*d-f. Sierra Leone.* Presented by the Rev. D. F. Morgan,

*Page* 719.

**PURIUS? VULPINUS.**

*Cervina; alæ anticæ costa lutea.* Mas.—*Alæ posticæ albæ, testaceo marginatae.* Fœm.—*Alæ posticæ luteæ.*

*Antarctia vulpina, Hübn. Samml. Exot. Schmett. ii. Lep. iii. Phal. ii. Veræ, xii. Trichodæ A. Hebescentes?* f. 1—4.

**PURIUS? BRUNNEUS.**

Mas. *Obscure fusca; antennæ et pedes fulvescentia; alæ posticæ subtestaceæ, antice cinereæ.*

*Antaretia brunnea (Phalæna Vera, Trichoda hebescens).* Geyer, Zutr. Samml. Exot. Schmett. iii. 7, 202, f. 403, 404.

Monte Video.

*Page* 726.

**AMERILA MAURITIA.**

Not a species of *Hypsa*. See p. 455.

*Page* 752.

**SCIATHOS ?? LEUCOSTIGMA.**

*Rufus, subtus testaceus; thorax nigro trimaculatus; alæ anticæ apud costam nigræ, rufo trifasciatæ, macula discali trigona alba; posticæ testaceaæ.*

*Phalæna leucostigma, Anon. Ins. Surin. pl. 112.*

*Female.* Red, pale testaceous beneath. Palpi rather long. Antennæ simple in both sexes? Thorax with three black spots, one in front and two behind. Abdomen extending a little beyond the hind wings. Fore wings black along the costa, with three red bands; first band macular; second beyond the middle, and containing a triangular white discal spot; third marginal. Hind wings pale testaceous, with a slight rosy tinge along the interior border.

Surinam.

*Page 753.*

Genus DIAPHORA.

Diaphora, *Hübn. Verz. Schmett.*

Ovios, p. 753.

1. DIAPHORA CAPENSIS.

Ovios capensis, p. 753.

*Page 754.*

DIAPHORA SYLVINA.

Bombyx elegans, *Fabr. Ent. Syst. Bomb.* 109.

Diaphora elegans, *Hübn. Verz. Schmett.* 188, 1936.

Ovios Sylvina, p. 754.

*Page 775.*

Fam. ARCTIIDÆ ?

— — — CORDATA.

*Alæ incumbentes; anticæ rubro ferrugineæ, maculis punctisque argenteis; posticæ fuscæ, immaculatæ, margine pallido.*

Bombyx cordata, *Ljung, Kongl. Vet. Acad. Handb.* 1825, 347, pl. 2, f. D.

West Indies.

*Page 840.*

*Dele EUPROCTIS SPECTRA, &c. See p. 821.*

*Page 852.*

TEARA? CASTALIA.

*Alæ rotundatæ medio albæ, anticæ ocello, posticæ puncto fusco.*

Bombyx Castalia, *Fabr. Syst. Ent.* 559, 13; *Sp. Ins.* ii. 171, 23; *Mant. Ins.* ii. 110, 26; *Ent. Syst.* iii. 1, 416, 31. *Oliv. Enc. Méth. Ins.* v. 32, 34.

Phalæna-Bombyx Attacus Castalia, *Gmel. ed. Syst. Nat.* i. 5, 2407, 484.

New Holland.

*Page* 1229.

**BUNÆA PHÆDUSA.**

*Bombyx Saturnus*, *Fabr.*, is probably a distinct species. See p. 1222.

*Page* 1390.

**GASTROPACHA QUERCIFOLIA.**

*Euthrix Quercifolia*, *Meig. Syst. Beschr. Eur. Schmett.* ii. 1921, pl. 77, f. 1; *Handb.* 130, 67.

*Page* 1391.

**GASTROPACHA POPULIFOLIA.**

*Euthrix Populifolia*, *Meig. Syst. Beschr. Eur. Schmett.* ii. 1922, pl. 77, f. 2; *Handb.* 130, 66.

**GASTROPACHA ILCIFOLIA.**

*Euthrix Ilicifolia*, *Meig. Syst. Beschr. Eur. Schmett.* ii. 193, 4, pl. 77, f. 4; *Handb.* 129, 64.

*Page* 1392.

**GASTROPACHA BETULIFOLIA.**

*Enthrix Betulifolia*, *Meig. Syst. Beschr. Eur. Schmett.* ii. 192, 3, pl. 77, f. 3; *Handb.* 130, 67.

*Page* 1395.

**GASTROPACHA ALBIPECTUS.**

This seems to be a mutilated specimen of *Polymena hamata*, p. 1422.

*Page* 1406.

**EUTRICHA PINI.**

*Euthrix Pini*, *Meig. Syst. Beschr. Eur. Schmett.* ii. 194, 6, pl. 77, f. 5; *Handb.* 131, 68.

*Page* 1408.

EUTRICHA LOBULINA.

Lasiocampa lobulina, *Meig. Syst. Beschr. Eur. Schmett.* ii. 200, 7,  
pl. 78, f. 2; pl. 80, f. 10.

*Page* 1410.

ODENESTIS POTATORIA.

Euthrix potatoria, *Meig. Syst. Beschr. Eur. Schmett.* ii. 195, 7, pl.  
78, f. 1; *Handb.* 132, 70.

*Page* 1413.

*For Genus 7. AMYDONA* (nomen bis lectum, p. 1110), *read TRABALA.*

*For AMYDONA HUMERALIS, read TRABALA HUMERALIS.*

*For AMYDONA GUTTULARIS, read TRABALA GUTTULARIS.*

*Page* 1414.

*For AMYDONA UNICOLOR, read TRABALA UNICOLOR.*

*For AMYDONA VARIA, read TRABALA VARIA.*

*Page* 1415.

*For AMYDONA BASALIS, read TRABALA BASALIS.*

*Page* 1416.

*For AMYDONA LÆTA, read TRABALA LÆTA.*

*Page* 1417.

*For AMYDONA PRASINA, read TRABALA PRASINA.*

*For AMYDONA PALLIDA, read TRABALA PALLIDA.*

*Page* 1444.

LASIOCAMPA? ANNULIPES.

*Alæ omnes pallide fuscescentes; anticæ costa basique saturatores;  
abdomen supra et thorax fasciculis fuscis; pedes nigri, luteo  
annulati.*

*Bombyx annulipes*, *Boisd. Faun. Ent. Mad. Bourb. et Maur.* 87,  
pl. 12, f. 3.

Bourbon.

*Page* 1585.

**AGARISTA FEISTHAMELII.**

*Apina Feisthamelii*, p. 757.

*Page* 1636.

**AUTOMOLIS DOCIS.**

Fœm. *Nigro-fusca*; *caput et thorax postice cyanea*; *thorax rufo quadrimaculatus*; *abdomen e maculis cyaneis trivittatum*, *basi subtusque coccineum*; *alæ anticæ vitta arcuata ramulum ad costam emittente coccinea*; *posticæ macula antica basali coccinea*.

*Page* 1689.

**TERMESSA SHEPHERDI.**

*Termessa Shepherdi*, *Newman, Trans. Ent. Soc. Lond.* 1856.

*Termessa lœta*, p. 1689.

*Page* 1702.

*For ALOA VACILLANS, read AMPHISSA VACILLANS. See p. 685.*

# INDEX.

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## A.

- Abas*, 1305  
*Abasia*, 1305  
*abdominalis*, 731, 1617  
*Abietis*, 864  
*abrasa*, 1106  
*abrupta*, 304  
*abscissa*, 299  
*Acacie*, 1447  
*Acetes*, 1232  
*Achalinoptera*, 1  
*Acharia*, 274, 1638  
*Acharon*, 258  
*Achatina*, 865  
*Acheloe*, 1766  
*Achelous*, 1765  
*Achemon*, 276  
*Achillaria*, 8  
*Achilleæ*, 78  
*Achroia*, 506  
*Acidalia*, 1348  
*Achyitia*, 243, 244, 1631  
*Aconia*, 744  
*Aconyta*, 1370  
*Acræa*, 427  
*Acræoides*, 32  
*Acraga*, 807  
*Acrea*, 667  
*Acria*, 668  
*acrocyanæa*, 1669  
*Acrosema*, 1049  
*acroxantha*, 160  
*Actea*, 307, 1649  
*Actinophorus*, 29  
*Actor*, 17  
*acuminata*, 1608, 1629  
*acuta*, 889  
*Acyphas*, 797  
*Adalifa*, 421  
*Adeloccephala*, 1498  
*Adiante*, 303, 1778  
*admirabilis*, 487, 646  
*admota*, 1612  
*Adolphei*, 1442  
*adspersa*, 793  
*adusta*, 897, 1400  
*Æacus*, 89, 250  
*Æcyra*, 1609  
*Ædea*, 428, 1671  
*Ægeria*, 3  
*Ægeriadæ*, 2  
*Ægeriidæ*, 2  
*Ægina*, 1091  
*Ægistus*, 9  
*Ægocera*, 55, 561, 1588  
*Æmene*, 541, 1683  
*Æmilia*, 1149, 1038  
*æqualis*, 511, 686  
*æquinoctialis*, 331  
*Æres*, 391  
*æruginosa*, 391  
*Æsculi*, 1529  
*æthiops*, 1519  
*Æthria*, 188  
*affiniella*, 1776  
*affinis*, 43, 116, 1485, 1585,  
 1776  
*afflicta*, 144  
*Agagles*, 392, 393  
*Agalope*, 437  
*Aganais*, 454  
*Agarista*, 40, 1585, 1772,  
 1786  
*Agaristiadæ*, 10  
*Agaristidæ*, 10  
*Agaristides*, 10  
*Agaristites*, 10  
*Agaristoides*, 354  
*Agathylla*, 1343  
*Agerocha*, 174, 1613  
*Agis*, 1357  
*Agisa*, 1129, 1757  
*Agorius*, 408  
*Aglaope*, 106, 107, 252, 286  
*Aglaura*, 351, 1654  
*Aglia*, 1242, 1244, 1313  
*Ag lone*, 1100  
*Agresta*, 1489  
*agrestis*, 1489  
*agricola*, 40  
*agrionides*, 1567  
*Agrisius*, 723  
*Agrius*, 275, 1423, 1586  
*Agrumenia*, 97  
*Agylla*, 552  
*Agyrta*, 326, 1651  
*Aidos*, 1495  
*Aira*, 602  
*alba*, 676  
*albella*, 925  
*albeola*, 475  
*albicans*, 730, 1043, 1450,  
 1492, 1544, 1682, 1739  
*albiceps*, 1640  
*albicollis*, 1479  
*albicosta*, 630, 1052  
*albida*, 925, 1493  
*albidifascia*, 1402  
*albifinis*, 1483, 1686  
*albifrons*, 1029  
*albigutta*, 1194, 1419, 1764  
*albimacula*, 128  
*albina*, 1730  
*albipectus*, 1395, 1784  
*albiplaga*, 218, 1748  
*albipuncta*, 1123  
*albisigna*, 146  
*albistriga*, 1154  
*albiventris*, 176, 1657  
*albivitrella*, 925  
*albulæ*, 499, 581  
*albulalis*, 581  
*Alcides*, 7  
*Alcinoe*, 1228  
*Alciphrone*, 454, 456  
*Alecton*, 236  
*Aletis*, 353  
*Aletta*, 338  
*Algira*, 99  
*algircum*, 591, 763  
*Alhagi*, 785  
*aliena*, 241, 1630  
*Alinda*, 1230  
*Aliris*, 415,  
*Almon*, 244  
*Aloa*, 699, 1702  
*Alope*, 619

- Alopia*, 1231  
*Alpenus*, 686, 1782  
*Alphæa*, 683, 840  
*alpicola*, 624  
*alpina*, 602, 649  
*Alpis*, 1094  
*Alsus*, 738  
*alterna*, 520  
*alternus*, 1020  
*Altrix*, 1068  
*Alypia*, 59  
*amabilis*, 58, 561  
*ameena*, 1189  
*Amalea*, 575  
*Amalia*, 1361  
*Amalthea*, 58  
*Amana*, 661  
*Amanda*, 1498  
*Amasis*, 612  
*Amastus*, 723  
*amatrix*, 49, 1704  
*Amaxia*, 721  
*Ambryllis*, 750, 1710  
*Ameles*, 711  
*Ameria*, 554  
*Amerila*, 725, 1704, 1782  
*Amesia*, 414  
*Americana*, 286, 607, 1488  
*Amica*, 364  
*amicus*, 392  
*Amilia*, 1337  
*Ammalo*, 622, 1694  
*Ammatho*, 759, 1680  
*ampelophaga*, 109  
*Amphissa*, 684, 1778  
*ampla*, 101, 820, 883, 1412,  
 1502  
*amplicornis*, 884  
*Amsacta*, 804, 1725  
*Amsteinii*, 79  
*Amycles*, 1630  
*Amycus*; 27  
*Anydona*, 1110, 1413, 1785  
*amygdaloïdes*, 773  
*Amynta*, 1741  
*Anace*, 1719  
*anachoretæ*, 1055, 1056  
*anachoretus*, 1056  
*Anagnia*, 446  
*analis*, 1677  
*Anapæa*, 1117  
*Anaphe*, 856  
*Anaphela*, 751  
*anartoides*, 804  
*Anassa*, 1372  
*anastomosis*, 1057, 1059  
*Anaxila*, 810  
*Anaxita*, 748  
*ancilla*, 135  
*ancipitalis*, 580  
*Ancistrota*, 1159, 1761  
*Andala*, 774  
*Anderéggii*, 519  
*Anderreggella*, 932  
*Andriasa*, 1735  
*Andromacha*, 186  
*Aneurocampâ*, 1046, 1047  
*Angasana*, 1231  
*Angasii*, 757  
*Angelicæ*, 88, 604  
*Anguina*, 1062, 1749  
*angulata*, 367, 858, 1185  
*angulatus*, 1555  
*angulifera*, 662, 919, 1224,  
 1363  
*angulosa*, 345, 738, 999,  
 1634  
*angulum*, 1553  
*angustella*, 941  
*angusticostellâ*, 955  
*angustipennis*, 767, 1394  
*anicella*, 952  
*Anisota*, 1495  
*annexa*, 1612  
*annulata*, 124, 391, 512  
*annulifascia*, 734  
*annulipes*, 1785  
*Anodontæ*, 1018  
*anomala*, 1022  
*Antarctia*, 1703, 1753, 1782  
*antennata*, 881, 1482  
*Anthela*, 853  
*Antheræa*, 1239, 1378  
*Antheua*, 687, 766  
*Anthilaria*, 92  
*Anthomyza*, 340  
*anthonilis*, 1499  
*Anthora*, 801, 918  
*anthracina*, 253  
*Anthrocera*, 64  
*Anthroceridæ*, 63  
*Anthyllidis*, 95  
*antica*, 505, 802, 805, 835,  
 867, 1074, 1174, 1673,  
 1708, 1739  
*Antichloris*, 247  
*Anticla*, 1174  
*Anticyra*, 1091  
*Antiora*, 1769  
*Antiphela*, 806  
*Antiphella*, 1743  
*antipoda*, 1563  
*antiqua*, 784, 785  
*antiquoides*, 783  
*Antochloris*, 242  
*Antona*, 479  
*Anycles*, 253  
*Anzabe*, 1093  
*Apantesis*, 631  
*Apela*, 1092  
*Aperla*, 1598  
*Apha*, 1180  
*Aphelia*, 1319  
*Aphyle*, 720  
*apicalis*, 111, 261, 395, 520,  
 815, 1032, 1058, 1150,  
 1152, 1169, 1177, 1194,  
 1464, 1624; 1626, 1663,  
 1706  
*apicola*, 624  
*apiculata*, 1165  
*apiformella*, 933  
*apiformis*, 933  
*Apina*, 756, 1786  
*Apisa*, 916  
*Aristosia*, 477  
*Apoda*, 1146  
*Apollinaris*, 1320  
*Apollonia*, 1272  
*Apona*, 1762  
*apparens*, 841  
*approximanus*, 370, 1311  
*apricans*, 224  
*Apyre*, 490, 1680  
*Arara*, 641  
*Arata*, 1240  
*Archias*, 267  
*Archylus*, 1718  
*arctata*, 1664  
*Arctia*, 589, 594, 765, 1692,  
 1780  
*arctica*, 986  
*Arctiidæ*, 585, 977  
*Arctites*, 585  
*Arctornis*, 841  
*Arcturus*, 843  
*arcuata*, 985, 1164  
*Ardalus*, 24  
*Ardices*, 709  
*Ardonea*, 482, 1680  
*Are*, 758  
*Areas*, 658  
*arenacea*, 1150, 1730  
*areolata*, 332  
*Arestha*, 805  
*Arethusa*, 1204  
*Areva*, 525  
*Arge*, 609  
*argentata*, 1134  
*argentea*, 827  
*argenteo-maculatus*, 1556  
*argenteus*, 1578  
*argentifera*, 1124  
*argentiferus*, 1566  
*argentiflua*, 1729  
*argentina*, 1010  
*Argila*, 810  
*Argina*, 565  
*Argus*, 571, 1266, 1685  
*Argynnus*, 207  
*argyrorrhæa*, 1729  
*Aricia*, 1212, 1321  
*arida*, 994  
*arideola*, 504  
*Aries*, 87  
*Arina*, 1662

- Armena*, 68  
*Armida*, 1289  
*Armidia*, 1307  
*Arminia*, 1290, 1307  
*Arna*, 1176  
*Arne*, 388  
*Aroa*, 792, 1744  
*Aronites*, 263, 1637  
*arrogans*, 214  
*Arsenura*, 1321  
*Artace*, 1491  
*Artaxa*, 794  
*Artemis*, 394  
*Arthus-Bertrand*, 460, 725  
*Artona*, 439  
*Arundinis*, 1543  
*Arycanda*, 1774  
*Aselgia*, 1485, 1758  
*asella*, 1146  
*aselus*, 1147  
*Asiona*, 556  
*Asœtria*, 878  
*Aspa*, 452  
*Aspasia*, 1326  
*Assama*, 1249  
*Assamensis*, 1249  
*assimilans*, 630  
*assimilis*, 1052, 1696  
*Astarte*, 1023  
*asterophela*, 1255  
*Asteroscopus*, 1035  
*Astra*, 725, 1704  
*Astragali*, 85, 86, 97  
*Astrea*, 570, 725  
*Astreas*, 725  
*Astynome*, 1496  
*Astyche*, 173  
*Asura*, 484  
*Asylas*, 1538  
*Aterea*, 389, 390  
*Atereus*, 128  
*atterima*, 236  
*Athamanthe*, 89  
*Athis*, 25, 32  
*Atlantica*, 872, 1272  
*Atlanticum*, 764  
*Atlas*, 1214, 1218  
*Atolmis*, 482  
*atomaria*, 796, 837, 866, 1739  
*atomosa*, 746, 1705  
*atra*, 942  
*atraalba*, 397  
*Atrasana*, 1749  
*atratula*, 508  
*atrella*, 942  
*atribombycella*, 933  
*atripalpis*, 1577  
*Attachus*, 1268  
*Attacidæ*, 1198  
*Attacidi*, 1198  
*Attacus*, 1200, 1268, 1378  
*Atteva*, 526  
*Atychia*, 106, 107, 1590  
*Atymnus*, 17  
*Avela*, 1658  
*Avellanæ*, 1480  
*Avia*, 1349  
*Auge*, 189, 1616  
*auletes*, 1305  
*aulica*, 604  
*aurantia*, 503  
*aurantiaca*, 523  
*aurata*, 213, 250, 519  
*aureola*, 503  
*auriflamma*, 294  
*aurifluia*, 832, 833  
*aurifluus*, 832  
*aurifusa*, 293  
*aurimutua*, 292  
*auripes*, 250  
*auriscutalis*, 385  
*aurita*, 517, 518  
*aurococcineus*, 640  
*auroguttata*, 1532  
*aurolimbata*, 781  
*Aurora*, 1062, 1751  
*Aurota*, 1203, 1214  
*Aurotus*, 1203  
*Austera*, 1004  
*Australasiæ*, 657, 1558  
*australis*, 84, 459, 787, 1574  
*Autochloris*, 162, 185  
*Automeris*, 1278  
*Automolis*, 213, 639, 1096, 1634, 1786  
*Auxo*, 142, 327  
*azurea*, 325
- B.
- Bactris*, 1643  
*Balaera*, 1721  
*Bajularia*, 615, 1693  
*Balbura*, 481  
*Balcanica*, 1435  
*Balcarica*, 73  
*balsamifera*, 997  
*bambucina*, 1773  
*Banksiæ*, 1053  
*Barbara*, 103, 925  
*Barbicornis*, 382  
*Baritius*, 712  
*Barsine*, 546  
*basale*, 1448  
*basalis*, 53, 251, 365, 438, 806, 811, 966, 1110, 1297, 1415, 1523, 1635, 1704, 1757  
*basifusca*, 1083  
*basigutta*, 1080  
*Basilis*, 382  
*basilutea*, 182, 1616  
*basipennis*, 1707  
*basistriga*, 1747  
*basitriens*, 1000  
*basivitta*, 298  
*Batesii*, 975  
*Baucis*, 278  
*Bauhinia*, 1378  
*Baulus*, 394  
*Baumhiria*, 1217  
*beata*, 1661  
*Beatrix*, 877  
*Begga*, 1695  
*Belangeri*, 49  
*Belemnia*, 211, 1622  
*Belina*, 1241  
*bella*, 216, 568, 1131  
*bellatrix*, 46, 217, 552, 1587, 1624  
*Bellidis*, 79  
*Bellierella*, 941  
*Bellona*, 405  
*Beralade*, 852  
*Betis*, 1207  
*Betulifolia*, 1392, 1784  
*Bianca*, 1684  
*Bibia*, 143, 1601  
*Bibiana*, 1494  
*Bibula*, 1494  
*bicincta*, 120  
*bicolor*, 255, 734, 761, 787, 820, 1034, 1142  
*bicolora*, 338, 511, 1011, 1653, 1682, 1718, 1771  
*bicolorella*, 940  
*bicosta*, 506  
*bicuspidis*, 983  
*bidentata*, 1076  
*bifacies*, 968, 1087  
*bifascia*, 1077, 1448, 1493  
*bifasciata*, 368, 437, 475, 519, 1005, 1688  
*bifasciatus*, 641  
*bifida*, 984  
*bifrons*, 705  
*bifurca*, 700  
*bifurcata*, 988  
*bigutta*, 541, 818, 837  
*biguttata*, 707  
*bijuncta*, 1602  
*bilinea*, 1142, 1289, 1425  
*bilineatus*, 1488  
*biluna*, 1176  
*bimacula*, 57, 379  
*bimaculata*, 275, 836, 1463, 1586  
*binaria*, 1161  
*binotata*, 1709  
*bipars*, 1455, 1597  
*bipennis*, 381  
*bipunctata*, 738  
*Bireta*, 1754

- | C.  | C.                         |
|---|----------------------------|
| bistrigata, 1013, 1014                          | Caralisa, 1660             |
| Bitia, 1001                                     | Carama, 843                |
| bitorquata, 77                                  | Caricae, 454, 1675         |
| Biturix, 717                                    | Carmelita, 1007            |
| bivitta, 1682                                   | Carna, 1552                |
| bivittata, 348                                  | Carniolica, 95, 96, 97     |
| biundata, 1025                                  | Carnus, 1552               |
| Bizone, 548, 1684                               | Carpini, 951, 1270         |
| Boarmia, 1381                                   | Caryatis, 460              |
| Bœtica, 100, 590                                | Casanella, 937             |
| Bœticum, 590, 763, 1692                         | Casehmirensis, 102, 1393   |
| Boisduvalii, 5, 27, 84, 750,<br>967, 1273, 1534 | Casigneta, 676             |
| Bombella, 947                                   | Casmilus, 20               |
| Bombycella, 947                                 | Cassandra, 235, 1324, 1396 |
| Bombycidæ, 1386                                 | Cassinea, 1035             |
| Bombycidi, 1386                                 | Cassinia, 1027             |
| Bombycina, 272, 583                             | Casta, 598                 |
| Bombycini, 977, 1386                            | Castalia, 1783             |
| Bombyx, 1505                                    | castanea, 1543             |
| Bombycites, 279, 583, 1386                      | Castaneæ, 1543             |
| Borbonica, 458                                  | Castnia, 15, 1580, 1771    |
| borealis, 1408                                  | Castniadæ, 10              |
| Boreas, 1329                                    | Castnii, 10                |
| Borocera, 1466                                  | Castnites, 10              |
| Boschmana, 903                                  | Castnius, 22               |
| Bourica, 227                                    | Castrensis, 1486, 1488     |
| Bracca, 1693                                    | Castulo, 561, 1687         |
| Brachionycha, 1035, 1750                        | Catax, 1468, 1469          |
| Brachionyx, 1035                                | catenata, 1706             |
| braconoides, 166                                | Catenula, 746              |
| Bracteodes, 375                                 | Catenulata, 746            |
| Brahma, 1443                                    | Catilina, 342              |
| Brahmæa, 1315                                   | Catocephala, 1445          |
| Brasiensis, 1292                                | Caviria, 824               |
| Braziliensis, 5                                 | Caucasica, 625             |
| Brecourtii, 24                                  | caudata, 193, 689          |
| Bremeri, 1393                                   | Caunus, 186                |
| brevicornis, 536, 1729                          | Cebysa, 486                |
| brevilinea, 469                                 | Cecrita, 992, 1748         |
| brevipennis, 509                                | Cecropia, 1224             |
| brevis, 1500                                    | Cedo-nulli, 1089           |
| Brizæ, 69                                       | Cedri, 70                  |
| Bromus, 179                                     | Celadon, 363               |
| Brotea, 878                                     | Celenia, 297               |
| brunneus, 274                                   | Celeus, 103                |
| Bunnus, 274                                     | Cencia, 538                |
| Bryce, 303                                      | Centaureæ, 104, 1590       |
| Brycea, 563                                     | centonalis, 579            |
| Bubo, 747                                       | Centralis, 171, 288        |
| bucephala, 1050                                 | centrolinea, 1036          |
| Bucephaloïdes, 1051                             | Centronia, 314             |
| Buddha, 1440                                    | Cepheus, 229, 1625.        |
| Budea, 682                                      | Cephimallota, 955          |
| Bufo, 1147                                      | Cephise, 387               |
| Buglossi, 75                                    | Ceratocampa, 1370          |
| Bunæa, 1226, 1784                               | Cerbera, 121, 1592         |
| bupaloides, 374                                 | Cercostis, 307             |
| Bura, 1612                                      | cereola, 505               |
| Butus, 254                                      | Cerocampa, 1370            |
|   | Certhia, 1316              |
|   | cervicalis, 484            |
|   | ervina, 800                |
|   | cerura, 982, 1748          |

- Cetola*, 1015  
*Chalcidica*, 1528  
*Chalciope*, 155  
*Chalcosia*, 358, 420, 1669  
*Chalcosiidae*, 1668  
*Chalepteryx*, 913  
*Chalinoptera*, 1  
*Chaonia*, 1012, 1013  
*Chaonius*, 996  
*Chapata*, 1202  
*Charagria*, 1569  
*Charidea*, 201, 277, 278,  
  1623  
*charilina*, 560  
*Charnidas*, 797  
*Charon*, 69, 85  
*Chelonarii*, 585  
*Chelonia*, 589, 594, 927  
*Chelonides*, 585  
*Chelura*, 436  
*Chephise*, 388  
*Chetocera*, 1  
*Chilena*, 1070  
*Chimæra*, 927  
*chlamitulus*, 580  
*chlamydulus*, 580  
*Chloris*, 1140  
*chloropyga*, 455  
*chloros*, 108  
*Chremes*, 31  
*Chrostogastris*, 1411  
*Chrostosoma*, 179, 180  
*Chrysanthemi*, 87  
*Chrysauge*, 367, 1659  
*Chrysis*, 162  
*chrysitis*, 251  
*Chrysocale*, 208  
*chrysocephala*, 108, 475  
*chrysogastra*, 186  
*chrysopala*, 838  
*chrysomelas*, 360, 1636  
*Chrysophila*, 385  
*chrysorrhæa*, 832, 833  
*chrysorhæus*, 832  
*chrysotelus*, 1600  
*Cibyra*, 1770  
*cicatricalis*, 579  
*Cicinnus*, 1380  
*Cifuna*, 1172  
*Cilipes*, 1126  
*ciliarella*, 928  
*ciliaris*, 476, 929, 1680  
*ciliarivincella*, 928  
*ciliata*, 807  
*Cilix*, 1178  
*Cimola*, 817  
*cincta*, 1598  
*cinerascens*, 576, 742, 900,  
  991, 1767  
*cinerea*, 741, 767, 866,  
  1301, 1478, 1741, 1748  
*cinerella*, 937
- cinerola*, 501  
*cinerina*, 504  
*cingulata*, 93, 481, 1710  
*cingulifera*, 569  
*Cinnamomea*, 1353  
*Cippe*, 1144  
*Cippus*, 1143  
*Circe*, 311, 1671  
*circinata*, 1672  
*circumdata*, 819, 969  
*circumstans*, 1197  
*Cirina*, 1382  
*Cirtana*, 109  
*Cispia*, 857, 1733  
*Cissura*, 488  
*Cisthene*, 533  
*Cistidia*, 341  
*Citheronia*, 1370  
*Citri*, 1715  
*citrina*, 905, 1642  
*citrosa*, 513  
*Civica*, 605  
*Clamara*, 1099  
*clandestinella*, 931  
*Clania*, 963  
*Clara*, 660  
*Claphe*, 993  
*Clathe*, 994  
*Clathrella*, 953  
*clavata*, 192, 297  
*clavigera*, 390  
*clavipes*, 1554  
*Claudia*, 1396  
*claudicula*, 1778  
*Cleapa*, 1036  
*Cleis*, 15  
*Clelea*, 465  
*Clelia*, 119  
*Clidia*, 787  
*Clio*, 341  
*Clisiocampa*, 1479, 1039,  
  1485  
*Clite*, 312  
*Closteria*, 1054  
*Closterocera*, 1, 2  
*Clymene*, 650  
*Cnethocampa*, 1039, 1751  
*coarctata*, 193, 1131  
*Coborisa*, 915  
*Cochleophasia*, 931  
*Cochrus*, 20  
*Cocles*, 1432  
*Cocytia*, 13  
*cœcigena*, 1276  
*Cœculia*, 1404  
*cœlestina*, 324, 1651  
*cœlicolor*, 441  
*cœlisigna*, 384  
*Cœnea*, 426  
*cœnobita*, 828  
*cœnochromia*, 122  
*cœnosa*, 828
- cœruleifascia*, 1721  
*cœruleocephala*, 1081  
*cœruleocephalus*, 1081  
*cœsaria*, 593  
*cœstroides*, 1518  
*cœstrum*, 1513  
*cognata*, 107, 109, 1532,  
  1619, 1776  
*Colobata*, 1736  
*Colchica*, 930  
*Coleoptrata*, 288  
*Coleta*, 399, 1663  
*collaris*, 120, 311, 724, 1442  
*Collesi*, 914  
*Colocasia*, 1059  
*colon*, 475  
*Colona*, 650  
*Columbina*, 174  
*combinata*, 1757  
*combusta*, 1018, 1092  
*comes*, 1728  
*comitella*, 951  
*comma*, 652, 1703  
*complana*, 498  
*complanata*, 498  
*complanula*, 499  
*completa*, 153  
*complicata*, 1306  
*compluta*, 517  
*Composia*, 360, 1655  
*compressa*, 1179  
*compressus*, 1179  
*Compsoprium*, 709  
*Comta*, 224  
*concinna*, 80, 1030, 1591  
*concisa*, 243  
*concolor*, 658, 669, 876,  
  908, 1015, 1353, 1463,  
  1494  
*confamula*, 136  
*conferta*, 533, 633, 1536  
*confinis*, 149, 651, 1592,  
  1613, 1753  
*conformis*, 509, 555  
*confusa*, 1013, 1117, 1172  
  1403  
*confusalis*, 579  
*conjuncta*, 1150  
*connexa*, 246, 898, 1773  
*consobrina*, 92, 1619  
*consolata*, 1601  
*Consoprium*, 1644  
*censors*, 183  
*consorta*, 970  
*consortus*, 970  
*conspersa*, 538, 714, 891,  
  1064, 1151  
*conspurcatella*, 953  
*conspurcatum*, 1698  
*Constancella*, 933  
*consueta*, 304  
*Contaminei*, 79, 103

- contenta, 258  
 contigua, 50, 651  
 continua, 463, 1646  
 contracta, 317, 1062, 1065,  
     1069, 1105  
 contraria, 113, 259, 717,  
     849, 1451, 1591, 1735  
 contrastis, 1732  
 convergens, 868, 1294  
 Copaxa, 1235  
 Copiopteryx, 1265  
 coprophora, 744  
 Cora, 1553  
 Coracia, 1680  
 Coras, 1637  
 cordata, 1783  
 cornea, 745  
 Coronis, 37, 1584  
 Coronilla, 90, 91, 1589  
 corrusca, 1670  
 Corsica, 74, 590, 783  
 Corsicum, 590, 763  
 corticea, 1707  
 Corybantes, 18, 19, 21, 28  
 Corydalla, 1650  
 Coryli, 1060  
 Corylus, 1060  
 Coscinia, 472  
 Cosmethis, 924  
 Cosmosoma, 168, 1611  
 Cossidae, 1509  
 Cossides, 1509  
 Cossites, 1509  
 Cossodes, 1525  
 Cossus, 1510, 1511, 1523,  
     1528, 1550, 1768  
 costalis, 499, 504, 806, 808,  
     1171  
 costata, 439, 677  
 Cosuma, 1112  
 cracicollis, 794  
 Crameria, 58, 524  
 Cramerii, 964  
 crassa, 1520, 1557  
 crassiorella, 950  
 crassus, 1520, 1557  
 Cratægi, 1480  
 Cratægus, 1480  
 Creatonotos, 637  
 credula, 361  
 crenata, 1037  
 crenosa, 1038  
 crenulella, 945  
 crescents, 1774  
 Creusa, 123  
 cribellum, 475  
 cribaria, 569  
 cribarius, 1516  
 cribrata, 570  
 cribrum, 474, 1678  
 Cricula, 1186, 1196  
 Crinita, 1353
- cristata, 1448  
 cristatum, 1448  
 cristulalis, 579, 580  
 Crocas, 715  
 crocata, 793, 1613  
 Crocicollis, 823, 1744  
 Crocipes, 817  
 Crocos, 715  
 Crocota, 535  
 Cronida, 1581  
 Cronis, 29, 30  
 Cropera, 825  
 Crorema, 811  
 Crotalariae, 572  
 cruciata, 1147  
 crucifera, 765, 1643  
 Cruenta, 97, 175, 355, 1299  
 cruentus, 1694  
 Crux, 1554  
 Cryptobia, 1510, 1519  
 Cryptoleuca, 239, 1650  
 Cryptothelea, 970  
 Ctenucha, 281  
 Ctenachidae, 281, 1644  
 Ctesiphon, 17  
 Ctimene, 386  
 Cuculla, 1009  
 cucullata, 578  
 cucullatella, 578  
 Cucullina, 1009  
 Culama, 1525  
 culta, 523  
 cultraria, 1160, 1163  
 Cunea, 669, 1781  
 cuneonotatus, 759  
 Cunigunda, 694  
 Cunina, 1667  
 cupraria, 536  
 cuprea, 1596  
 cuprepennis, 1632  
 cupreus, 115  
 curialis, 605  
 Curtula, 1055, 1056  
 Curtulus, 1055  
 curvatula, 1161  
 curvatum, 1695  
 curvilinea, 671  
 curvimargo, 1156  
 curvivitta, 1086  
 curvula, 1163  
 Cuvieri, 73  
 Cyana, 276, 528  
 Cyane, 343  
 cyanecula, 1600  
 Cybele, 1765  
 Cybosia, 514  
 Cyclosia, 337, 414, 1669  
 Cycnia, 680, 1699, 1781  
 Cydimon, 4  
 Cydimonii, 1, 4  
 Cydosia, 523, 1683  
 Cyllene, 543
- Cylopooda, 1778  
 Cyma, 332  
 Cymaræ, 72, 77, 104  
 Cynira, 1766  
 Cynthia, 1220  
 Cyparissias, 16  
 Cypra, 816, 1727  
 Cypria, 1378  
 Cyrilli, 475  
 Cyrtogene, 1343  
 Cyssus, 120  
 Cytherea, 1242  
 Cytisi, 79, 85, 86
- D.
- Daburica, 75, 597  
 Dalaca, 1559  
 Lalceria, 1106  
 Dalmannii, 26  
 Dalmatina, 71  
 Dama, 449  
 Damalis, 453  
 Damata, 1044  
 Damias, 14  
 Danima, 1052  
 Darala, 886  
 Dardanus, 21  
 Dares, 277  
 Daritis, 618, 1693  
 Dasycephalus, 4  
 Dasychira, 861, 1737  
 Dasyoma, 1468  
 Datana, 1060, 1751  
 dealbata, 830  
 decidens, 1125  
 Decimia, 1717, 1771  
 decipiens, 1488  
 decis, 345, 1441  
 decolor, 1498  
 decolorata, 1548  
 decora, 62, 489, 693  
 decorata, 748  
 decrescens, 1237  
 decussata, 29  
 dedecora, 1437  
 Dediamia, 1074  
 defecta, 546  
 defoliata, 1094  
 degenera, 698, 742, 906  
 Deilemera, 391  
 Deiopeia, 565, 1685  
 Dejeanii, 605  
 Delegorguei, 1332  
 deleta, 1005  
 Delia, 495  
 delicate, 550  
 delicatula, 817  
 delineata, 487, 700, 770,  
     818, 1490, 1680

- Delphyre*, 537  
*delumbis*, 388  
*Demas*, 1059  
*demortua*, 1741  
*dentaria*, 1163  
*dentata*, 708, 1016  
*dentatrix*, 46  
*Deolis*, 1170  
*Deona*, 1417  
*deplana*, 496, 500  
*depressa*, 500  
*Deroeca*, 822  
*despecta*, 1338  
*desperata*, 1602  
*Destolmia*, 991  
*determinata*, 1563  
*detrita*, 529, 790  
*Devara*, 1660  
*deusta*, 1398  
*Deyrollii*, 165, 1609  
*Diacrisia*, 635  
*Dianasa*, 488  
*diaphana*, 126, 182, 336,  
    508, 822, 1653  
*Diaphane*, 822  
*Diaphone*, 1474  
*Diaphora*, 680, 1783  
*Diastria*, 1488  
*dichroa*, 15, 338, 371  
*dichroaria*, 1685  
*dicolon*, 1135  
*Dicranura*, 982  
*Dicranuridæ*, 977  
*Dicranuridi*, 977  
*dictæa*, 1002  
*dictæoides*, 1003  
*Dictynna*, 1264  
*Didyma*, 1371  
*difficilis*, 1174  
 *dilatata*, 316  
 *dilecta*, 532, 959  
 *dilectula*, 1768  
 *Diloba*, 1080  
 *Dimas*, 375  
 *dimidiata*, 466, 1644  
 *diminuta*, 230, 328, 705,  
    741, 1592  
 *Dinara*, 1699  
 *Dinia*, 189  
 *Diniensis*, 97  
 *Dione*, 608, 1244, 1245  
 *Dioptris*, 318, 1653  
 *Diospage*, 212  
 *Dipænæ*, 257, 1634  
 *diptera*, 134, 265  
 *Dirphia*, 1346, 1381, 1767  
 *discalis*, 385, 407, 713, 767,  
    792, 1067, 1651, 1706,  
    1726  
 *discifera*, 178, 1612  
 *disciplaga*, 1709  
 *discivitta*, 440  
 *discolor*, 1640  
 *discoloria*, 1648  
 *discors*, 1027  
 *disjuncta*, 563, 1655  
 *dispar*, 298, 820, 872  
 *disparus*, 872  
 *Disphragis*, 1080  
 *distincta*, 392, 422, 1670  
 *ditissimus*, 643  
 *diversa*, 1195, 1659  
 *diversipennis*, 225  
 *diversipes*, 718  
 *dives*, 485  
 *Divida*, 369  
 *divisa*, 131, 329, 469, 614,  
    765, 815, 836, 973, 1073,  
    1093, 1383, 1644  
 *Docis*, 1637  
 *docta*, 592  
 *Docyna*, 1084  
 *dodonea*, 996, 1013  
 *Dœdalus*, 16  
 *dolabrata*, 1001  
 *Dolecta*, 1572  
 *dolens*, 112, 148, 1601  
 *dolosa*, 238, 922, 1594  
 *Doliche*, 529  
 *domiduca*, 604  
 *Domina*, 649, 1766  
 *Dominia*, 448  
 *Dominula*, 648  
 *Donna*, 649  
 *Donovani*, 43, 1585  
 *Doratifera*, 1115  
 *Dorcas*, 1233  
 *Dorothea*, 715  
 *dorsimacula*, 1717  
 *dorsisigna*, 481  
 *dorsalis*, 177, 671, 1169,  
    1615  
 *dorsivitta*, 305  
 *Dorvillia*, 1384  
 *Doryca*, 459  
 *Dorycii*, 88  
 *Doubledayi*, 392, 956  
 *Draconia*, 1579  
 *Draconipteris*, 1185  
 *Dreata*, 902  
 *Dregei*, 786  
 *Drepana*, 1159, 1761  
 *Drepania*, 1159  
 *drepanula*, 1761  
 *Drepanulidæ*, 1158  
 *Drepanulides*, 1158  
 *dromedarius*, 997  
 *Druryi*, 193  
 *Dryas*, 1641  
 *Drymœa*, 322  
 *Drymonia*, 1011, 1037  
 *Drynobia*, 1004  
 *Dryocampa*, 1495  
 *dryophaga*, 1423  
 *Dsidsilia*, 94  
 *dubia*, 682, 782, 1465,  
 *ducalis*, 1374  
 *dulcis*, 569  
 *Dulichia*, 809  
 *Dumeti*, 1432, 1435  
 *Duponchelii*, 1713  
 *Durvillii*, 13, 38  
 *Duvaucelii*, 1597  
 *dux*, 327, 1651  
 *Dysauxes*, 134  
 *Dysdæmonia*, 1328  
 *Dyspessa*, 1524  
 *Dysphania*, 342, 411  
 *Dysschema*, 341  
 *dystrepta*, 70
- E.
- Eacles*, 1370  
*Eagre*, 190  
*Eagrus*, 189  
*Ebale*, 1722  
*Ebalus*, 1722  
*eborina*, 516  
*eburneigutta*, 621  
*Echemus*, 163  
*Echo*, 688  
*Economidea*, 1758  
*Epantheria*, 688  
*Edebessa*, 1755  
*Edema*, 1028  
*Editha*, 1661  
*Edocla*, 428  
*edulis*, 903  
*effracta*, 546  
*Egea*, 1287  
*egena*, 681  
*egens*, 453  
*Egeon*, 340, 1654  
*Egeus*, 1287  
*Egina*, 38  
*Eglanterina*, 1318  
*Egle*, 669, 1781  
*Egybolia*, 755  
*Eilema*, 499  
*elegans*, 14  
*Elenteria*, 398, 816  
*Ellenthera*, 1742  
*Elhamma*, 1561  
*Elizabetha*, 433, 893, 1672  
*elongatella*, 945  
*elongatus*, 962  
*Eloria*, 813, 1726  
*Elysius*, 713  
*emarginata*, 295  
*emittens*, 638  
*Empedoclia*, 9  
*Empedocles*, 8, 9  
*Empusa*, 641, 643, 1710

- Empyreuma*, 210, 1622  
*Emydia*, 473  
*Enagrus*, 185  
*Endagria*, 1523  
*Endera*, 228, 1626  
*Endromidæ*, 1384  
*Endromides*, 1384  
*Endromidi*, 1384  
*Endromis*, 1384  
*Endromites*, 1384  
*Endrosa*, 514  
*Ennomia*, 174  
*Enome*, 883  
*Enope*, 208, 1620  
*Entella*, 495  
*Entelliola*, 495  
*Entometa*, 972  
*Eone*, 174  
*Ephemeræformis*, 959  
*Ephestris*, 362, 1653  
*Ephialtes*, 90, 91, 1589  
*Ephialtia*, 1648  
*Ephialtias*, 288, 302, 1778  
*Ephonia*, 1762  
*Ephora*, 1741  
*Ephyra*, 42, 1585  
*Epicalia*, 603  
*Epichnopteryx*, 116  
*Epicoma*, 781, 1732  
*Epicopeia*, 409  
*Epidesma*, 288, 309, 1649,  
  1656  
*epigena*, 1170, 1762  
*epigamma*, 1561  
*Epilais*, 227  
*Epimenis*, 386  
*Epimothea*, 1234  
*Epiolus*, 1561, 1566, 1576  
*Episema*, 1080  
*Episteme*, 343  
*Epyrgis*, 1669  
*equitalis*, 654  
*Erasmia*, 418  
*Erbessa*, 1651  
*Erchia*, 321, 357  
*Erebus*, 444  
*eremita*, 872  
*Eressa*, 149  
*Ergolis*, 335  
*Ergotis*, 277  
*Ericæ*, 782  
*Eridane*, 746  
*Eridanus*, 746  
*erinacea*, 601  
*Eriogaster*, 1467, 1767  
*eriophora*, 1132  
*eriporis*, 1586  
*Eriphia*, 247, 1631  
*Erithales*, 1688  
*erminea*, 664, 986  
*ermineus*, 664  
*Ernassa*, 1643  
*Ernestina*, 1662  
*Erocha*, 318  
*erosa*, 708  
*errans*, 250  
*Erruca*, 165  
*erycinooides*, 373, 1660  
*Erynnis*, 314, 315  
*erythracchos*, 164, 1607  
*Erythrinæ*, 1324  
*erythromelas*, 297  
*erythronota*, 727  
*erythrops*, 1310  
*erythrotelus*, 147  
*erythrozona*, 675  
*erythrus*, 67  
*Eryx*, 212, 1622  
*Esmralda*, 194  
*Esthema*, 337, 414, 1653  
*Estigmene*, 593, 663  
*Eterusia*, 427, 1671  
*Ethra*, 1214, 1232  
*Evadnes*, 180, 1614  
*Evalthe*, 21, 22  
*Evalthus*, 21  
*Evenus*, 40  
*Evergista*, 393  
*Everia*, 1469  
*Eversmanni*, 1433  
*evidens*, 551  
*Evippe*, 309, 1649  
*Evius*, 639  
*Euagra*, 323, 1651  
*Eubaphe*, 523  
*Eucalypti*, 1045, 1539  
*Eucerea*, 1638  
*Eucereon*, 265  
*Eucharia*, 598  
*Eucharis*, 371  
*Euchelia*, 565  
*Euchromia*, 201, 1592, 1777  
*Euclea*, 1143, 1178, 1758  
*Eucyane*, 361, 1656  
*Eudæmonia*, 1265  
*Eudamus*, 1583  
*Eudesmia*, 19, 564, 1582  
*Eudmoe*, 387, 388  
*Eudoxyla*, 1528  
*Eudule*, 380, 1661  
*Eugenia*, 449  
*Euglyphis*, 1396  
*Eulepia*, 472  
*Eumenidæ*, 1355  
*Eumenides*, 196, 1355  
*Eumeta*, 964  
*Eumolphos*, 221  
*Eunolpus*, 275  
*Eunomia*, 187, 1616  
*Eupalamides*, 16  
*Euphemia*, 50, 1587  
*Euphosyne*, 22  
*Euplagia*, 608, 647  
*Euplocia*, 447  
*Euplocoïdes*, 1669  
*Euprepia*, 591, 1678  
*Euproctis*, 831, 1729  
*Epterote*, 1742  
*Eupyra*, 1621  
*Eurata*, 180, 1614, 1776  
*Eurocilia*, 344  
*Euryda*, 1746  
*Eurydia*, 1678  
*Eurymas*, 910  
*Esceptis*, 522  
*Euschema*, 341, 404, 1667  
*Euschemon*, 11, 12, 1580  
*Eusebia*, 366  
*Eusemia*, 46, 1587, 1772  
*Eustera*, 1265  
*Eustixia*, 522  
*Eutane*, 531  
*Euthemonia*, 635  
*Eutomis*, 122, 199  
*Eutricha*, 1405, 1784  
*Eutrichæ*, 1406  
*Eutychia*, 92  
*Exæreta*, 1026  
*excavata*, 1154  
*excavatus*, 9  
*excellens*, 362, 902  
*excisa*, 889  
*exclamans*, 1561  
*exclamationis*, 631  
*expandens*, 398, 1238  
*exposita*, 1127  
*extendens*, 1666  
*extensa*, 1166, 1690  
*extranea*, 357  
*extrema*, 573, 691  
*exul*, 1560  
*exulans*, 76  
*Eyprepia*, 589, 591, 927

## F.

- Fabia*, 925, 1742  
*Fabricii*, 19, 20, 32  
*Fagi*, 1020  
*Fagus*, 1020  
*Falcaria*, 1159  
*falcata*, 90, 895, 1161  
*falcifera*, 1380  
*falcula*, 1162  
*falcularia*, 1161  
*famula*, 394  
*fascelina*, 863  
*fasceiinus*, 863  
*fasciata*, 599, 809, 851,  
  1163, 1665  
*fasciatrix*, 47  
*fasciculata*, 552, 1684  
*fasciculella*, 934  
*fasciola*, 1148  
*fastuosa*, 215, 1623

- Favonia, 73  
 Fausta, 98, 99  
 Faustina, 100  
 Febretta, 936  
 Febretella, 936  
 Feisthamelii, 757, 1585,  
 1786  
 Fenella, 939  
 fenestra, 199, 227, 337, 340,  
 1196, 1654  
 fenestrata, 54, 124; 189,  
 227, 339, 915, 916, 1588,  
 fenestrigera, 340  
 Fernandinæ, 6  
 ferox, 223  
 ferrea, 431, 1671  
 ferruginea, 890, 1157, 1184,  
 1458, 1701  
 ferruginosa, 259, 535, 854  
 fervens, 462, 898, 1419  
 servida, 57, 131, 612  
 servidus, 622  
 festiva, 171, 599, 602, 821  
*Ficus*, 456  
 Fida, 364  
 figurata, 625  
 figuratus, 759, 1680  
 Filipendulæ, 71, 79, 86,  
 1589  
 finalis, 190, 245  
 finita, 1131  
 fixa, 295  
 flabellicornis, 412, 1668  
 flabelliformis, 412  
 flammans, 257  
 flammula, 298  
 flava, 497, 519, 1107, 1730  
 flavaria, 1165  
 flavata, 1730  
 flavelata, 1659  
 flaveola, 97  
 flavescentia, 406, 1052, 1112,  
 1128, 1705  
*Flavia*, 600  
 flavicans, 516  
 flavicapilla, 484  
 flavicollis, 1442  
 flavicornis, 155, 1604  
 flavifascia, 1179, 1630  
 flavifuscula, 1165  
 flavigutta, 246, 1048, 1631  
 flavidata, 369  
 flavimacula, 1722  
 flavinia, 369, 1657  
 flavissima, 367  
 flavitarsis, 158, 1605  
 flavo-cincta, 200  
 flavopunctata, 740  
 flavoroseus, 640  
 flavula, 1149  
*Flina*, 1553, 1555  
 floccosa, 957
- florifera, 1135  
*Folletii*, 1624  
*Fonscolombei*, 20  
*Forda*, 1232  
 forficula, 985  
 formosa, 104, 221, 568,  
 755  
*Fortunii*, 1634  
 fracta, 1542  
*Francisca*, 638  
*Franckii*, 1527  
*Franconica*, 1445  
*Fraus*, 1564  
*Fraxini*, 94  
*Fregella*, 272  
*Fregeri*, 518  
*frigida*, 530, 1003  
*frontalis*, 188  
*Frontinus*, 41  
*fucella*, 933  
*Fuchsianus*, 1513  
*fucosa*, 487  
*fulgens*, 5, 1580, 1623  
*fulgida*, 1623  
*fuliginalis*, 578  
*fuliginosa*, 418, 628  
*fulva*, 1086  
*fulvescens*, 132  
*Fulvia*, 78, 291, 679  
*fulviceps*, 797, 922  
*fulvicollis*, 285  
*fulvilumbis* 388  
*fulvoflava*, 733  
*fulvohirta*, 684, 710  
*Fumaria*, 946  
*Fumea*, 930  
*fumeola*, 508  
*fumipennis*, 241  
*fumosa*, 1134  
*funalis*, 1146  
*funerea*, 592, 1678  
*furcifera*, 520  
*Furcula*, 982, 984, 985,  
 1748  
*furens*, 1755  
*furva*, 944  
*fusca*, 798, 860, 908, 944,  
 1288, 1712, 1724  
*fuscella*, 944  
*fuscens*, 1031, 1716  
*fuscinervis*, 384  
*fuscinula*, 616, 985  
*fuscomaculatus*, 1574  
*fucus*, 1553, 1703  
*fusifera*, 1647, 1657  
*fusiformis*, 1070, 1595,  
 1629  
*fusulis*, 353  
*futilis*, 1581
- G.  
*Gamelia*, 1278  
*Gamma*, 1731  
*Ganesa*, 1444  
*Ganisa*, 1190  
*Ganna*, 1555  
*Ganymedes*, 102, 226,  
 1590  
*Gasina*, 1478  
*Gastropacha*, 1039, 1388  
*gaudens*, 485, 1607  
*Gazera*, 1582  
*Gazorycta*, 1550  
*gelida*, 529, 611, 1692  
*gemina*, 427, 1671  
*geminata*, 907  
*gemmifera*, 152  
*Genduara*, 1747  
*generans*, 296  
*Genusa*, 818  
*Geodena*, 1691  
*geographica*, 788  
*Geometra*, 1159, 1178  
*geometroides*, 387  
*Geron*, 20, 21  
*Geryon*, 107  
*Giaclla*, 1315  
*gibbosa*, 1063  
*giganteus*, 1567  
*gigas*, 494, 1681  
*gilveola*, 501  
*Gippius*, 633  
*Givira*, 1526  
*glabrella*, 932  
*Glanycus*, 634  
*glaucha*, 363, 365, 1656, 1673  
*glaucata*, 1179  
*glaucescens*, 1188, 1328  
*Glaucomipidæ*, 63  
*Glaukopis*, 136, 320, 386,  
 424, 1592, 1599, 1670  
*Glaukopites*, 63  
*glaucoptoides*, 325  
*Globulariæ*, 106, 107, 1591  
*gloriosa*, 215, 384  
*Glaphisia*, 1037  
*Glycinæ*, 42  
*Glycyrrhizæ*, 82  
*gnoma*, 987, 1003  
*Gnophæla*, 330, 1652  
*Gnophria*, 483  
*Godartii*, 121  
*Gonodontæ*, 1688  
*Gonometa*, 971  
*Gonostigma*, 785  
*gonostigmatus*, 785  
*Gorgopis*, 1550, 1565  
*gracilis*, 913  
*graciosa*, 1139  
*graminella*, 938  
*graminis*, 81

grammica, 473, 1678  
 grandiella, 937  
 grandis, 874  
*Graphiphora*, 1080  
 gratiosa, 573, 599  
*Grimmia*, 1332  
 griseola, 497  
*grylloides*, 271  
*Guacolda*, 1688  
*Guineensis*, 276, 1244  
*guttata*, 795, 958, 1520  
*guttatus*, 1520  
*guttipalpis*, 1149  
*guttifascia*, 1719  
*guttifera*, 1125  
*guttivaga*, 558  
*guttivena*, 993  
*guttivitta*, 723, 992  
*guttularis*, 1402, 1413, 1785  
*Gyara*, 915, 1654  
*Gymnelia*, 152, 1602  
*Gynaephora*, 781, 1729,  
 1740  
*Gynanisa*, 1267  
*Gynautoeca*, 339, 411, 1668  
*Gyon*, 276

## H.

*Hades*, 908  
*haemata*, 147, 1601  
*Halesidota*, 732, 1705  
*Halone*, 540  
*halterata*, 199  
*Halys*, 243  
*hamata*, 895, 1422  
*hamatus*, 549, 975, 1422  
*Hamma*, 1555  
*Hammatophora*, 1049  
*hamula*, 1160  
*Hang*, 1608  
*Haploa*, 650  
*Harmodius*, 21  
*harpagula*, 1161, 1162  
*Harpyia*, 982, 1019  
*hasta*,  
*Hazis*, 339, 404  
*Hebe*, 598  
*Hebena*, 1722  
*Heber*, 244  
*hebes*, 537, 1462, 1474  
*Heleona*, 339  
*Hecate*, 1581  
*Hecatesia*, 54, 1588  
*hecta*, 1553, 1554  
*hectus*, 1553, 1554  
*Hedysari*, 97  
*Hegemon*, 26  
*Helcita*, 353  
*Helena*, 1253, 1614  
*Helenetta*, 1667

*Heleona*, 414  
*helicinella*, 944  
*Heliconia*, 452  
*heliconides*, 341  
*heliconioides*, 1582  
*Heliconisa*, 1333  
*helix*, 976  
*Hella*, 1405  
*Helladia*, 1730  
*Helops*, 623  
*helveola*, 500  
*Helymus*, 236, 1627  
*hemerobia*, 576  
*hemigena*, 595  
*hemigeneum*, 764  
*Hemileuca*, 1317  
*Hemioche*, 1268  
*Henucha*, 1331  
*Hepialidae*, 1509, 1548  
*Hepialus*, 1146, 1528, 1550  
*hepialica*, 1524  
*Hepiolus*, 1550  
*Hera*, 647  
*Heracula*, 610, 647  
*herbida*, 1740  
*herbifera*, 1136  
*Herculeana*, 1040, 1751  
*Hercules*, 1324  
*Hercynia*, 577  
*Herea*, 197, 1620  
*Herilla*, 1344  
*Heringi*, 68  
*Hermita*, 715  
*Hermina*, 1653  
*Herpa*, 441  
*Herrichii*, 960, 1581  
*Hersilia*, 1243  
*Hespagarista*, 13  
*Hesparia*, 358  
*hesperiariis*, 1583  
*Hesperia*, 1, 11, 12, 402  
*Hesperides*, 1  
*Hesperina*, 358  
*Hesperi-Sphinges*, 10  
*hesperoides*, 323  
*Hesperus*, 1209  
*Hesychia*, 99  
*Heterocampa*, 1022  
*Heterodonta*, 1010  
*heterogenea*, 1115, 1146  
*Heterogynides*, 63, 116  
*Heterogynis*, 115  
*Heteropan*, 440  
*Heterusia*, 1669  
*Hilaria*, 1655  
*hilaris*, 99, 530, 1142, 1529  
*Himantopterus*, 383  
*Hipocrita*, 288, 1648  
*Hipparchia*, 1741  
*Hippia*, 640  
*Hippocastani*, 1529  
*Hippocrepidis*, 85

*Hippodamia*, 1322  
*Hippola*, 222, 1625  
*Hira*, 220, 1624  
*Hircia*, 136, 1361  
*hirsuta*, 208  
*hirsutella*, 940, 941  
*hirta*, 510, 1437  
*hirtella*, 940  
*hirtipes*, 966  
*hispana*, 116  
*Histia*, 411, 1668  
*Histioca*, 216  
*Histicæa*, 216, 1624, 1625  
*histrio*, 220, 654  
*histrionica*, 740  
*histrionicus*, 420  
*Hæmacharis*, 170  
*hemanthus*, 324  
*haemorrhœa*, 465  
*haemorrhoidal*, 766  
*haemorrhoidalis*, 44, 186,  
 189, 1616  
*haemorrhusa*, 189  
*honesta*, 596, 1182  
*Hopfferi*, 86  
*Hoplitis*, 989, 1748  
*Horamia*, 251, 1632  
*Hormenica*, 1670  
*Horsfieldii*, 613  
*Horta*, 135  
*hospiata*, 624  
*Hubneri*, 30, 125, 960,  
 1592  
*humeralis*, 348, 1413, 1593,  
 1785  
*humilis*, 544  
*humulator*, 1551  
*Humuli*, 1551  
*Huttoni*, 1506  
*hyalina*, 136, 336, 436,  
 823  
*hyalinatus*, 1576  
*Hyalophora*, 1222  
*Halurga*, 339, 1654  
*Hybocampa*, 1748  
*Hyboma*, 1028  
*Hyda*, 181, 1616  
*Hydriias*, 1397, 1507  
*Hydrusa*, 255  
*Hyela*, 172  
*Hyelosia*, 340, 343, 1654  
*Hyleora*, 1045  
*Hylesia*, 995, 1346  
*Hyolophora*, 1200  
*Hyparchus*, 206, 1620  
*hyperborea*, 611, 1692  
*Hyperchiria*, 1277, 1379  
*Hypercompa*, 361, 635,  
 647  
*Hyperia*, 306  
*Hyphinoe*, 1535  
*Hyphoraia*, 605

*Hypogymna*, 870  
*Hypoprepia*, 486, 1680  
*Hypopta*, 1077, 1510  
*Hypoxytha*, 1654  
*Hypsa*, 444, 1673  
*Hypsidæ*, 1673  
*Hyrminta*, 331  
*Hyrtaca*, 1436  
*Hysia*, 172

## I.

*Ianassa*, 1101  
*Iberica*, 97  
*Icarus*, 19  
*Icasia*, 695  
*ichneumonea*, 1620  
*Ichthyura*, 1054, 1751  
*Icilia*, 1730  
*Icta*, 922  
*Idæoides*, 1699  
*Idalia*, 1742  
*Idalus*, 645  
*Idriensis*, 617  
*igninix*, 527  
*ignita*, 209, 1621  
*Ilicifolia*, 1391, 1392, 1393,  
 1784  
*Ilicifolium*, 1392  
*Ilipa*, 166, 1610  
*Iliberis*, 280, 1644  
*Illipula*, 237  
*illustris*, 1285  
*ima*, 233  
*Imaon*, 127  
*imbecilis*, 905  
*Imbrasia*, 1226, 1234  
*imbuta*, 518, 614  
*immutata*, 300  
*impar*, 169, 1334  
*imperatoria*, 1371  
*imperialis*, 655, 1371, 1621,  
 1629  
*inæqualis*, 557  
*inaurata*, 212  
*Inca*, 24  
*incadescens*, 910  
*incarnata*, 477, 690  
*incendiaria*, 155  
*incerta*, 880, 905, 1627  
*incertus*, 716  
*incisa*, 1145, 1307  
*inclusa*, 1059, 1584, 1737  
*incompta*, 1473  
*inconclusa*, 1562, 1727  
*inconspicuella*, 954  
*inconstans*, 389  
*indecisa*, 347, 697, 1471  
*indeterminata*, 697  
*Indica*, 674, 1039, 1489,  
 1536

*Indicus*, 1558  
*infans*, 1647  
*infausta*, 112, 1591  
*innitidella*, 950  
*innotata*, 674, 1443  
*Ino*, 106, 107, 561  
*inops*, 457  
*inornata*, 901, 1125, 1302,  
 1636  
*Inous*, 1095  
*inscripta*, 308, 547, 661  
*insolita*, 497  
*insolitus*, 635  
*insperata*, 1606  
*instructa*, 254  
*insulare*, 401  
*insularis*, 459  
*insulata*, 734  
*intacta*, 451, 814, 1727  
*intactus*, 719  
*integra*, 301, 707, 893, 984  
*intensa*, 159, 372  
*intercalaris*, 599  
*intercepta*, 372  
*intercisa*, 366, 685  
*interclusa*, 328  
*interfixa*, 627  
*intericta*, 14, 400  
*interlineata*, 38, 739  
*intermediella*, 951  
*interrupta*, 638, 850, 1628,  
*interstans*, 221  
*intricata*, 237, 1559, 1698  
*invaria*, 23, 240, 555, 1115  
 1720, 1724  
*Io*, 1278, 1308  
*Iphimedea*, 119  
*Ipomææ*, 1026, 1777  
*Irene*, 1291  
*Ira*, 226  
*Irius*, 226, 1222  
*Irmina*, 1298  
*irretita*, 522  
*irrorata*, 515  
*irroregia*, 515  
*irrorella*, 515, 517  
*Irus*, 226, 1625  
*Isabella*, 611, 849, 1692  
*Isabellæ*, 1260  
*isabellina*, 705  
*Isanthrene*, 154, 194, 1604  
*Isbarta*, 1672  
*Isia*, 1698  
*Isine*, 545  
*Isionda*, 1657  
*Isis*, 221, 370, 1267  
*Isse*, 344  
*isthmia*, 1674  
*Ituna*, 480

## J.

*Jacobææ*, 573, 1211  
*Jana*, 909, 1250  
*Janeira*, 1304  
*Janetta*, 1256  
*Janthina*, 80  
*Janus*, 1284  
*Japhet*, 38, 1584  
*Japyx*, 20  
*Javana*, 454  
*Jesuita*, 291  
*Jodutta*, 1552, 1554  
*Jorulla*, 1202  
*jucunda*, 216, 543, 1296,  
 1500, 1623  
*Josia*, 288, 1645  
*Judas*, 478  
*Juglandis*, 863  
*Julia*, 62  
*Jussiææ*, 670  
*Justina*, 1643  
*juvenis*, 1099  
*jynx*, 1777

## K.

*Katinka*, 1251  
*Kefersteinii*, 71  
*Khulweinii*, 122, 517  
*Kiesenwettori*, 105  
*Kindermannii*, 1513  
*Kirbii*, 961  
*Kirstenii*, 33  
*Klenæa*, 660  
*Konewkaii*, 604

## L.

*Labda*, 791  
*Labedera*, 965  
*labyrinthicus*, 1577  
*lacertinaria*, 1161, 1162  
*lacertula*, 1163  
*Lacida*, 801  
*Lacides*, 456  
*Lacipa*, 790  
*lacteola*, 500  
*Lacticinia*, 395, 1663  
*Lactinea*, 702  
*Lactura*, 485  
*Lacydes*, 685  
*Lades*, 251  
*Ladis*, 251  
*Lænnus*, 154  
*Læmocharis*, 1601, 1609  
*Lælia*, 827, 1728  
*læta*, 36, 100, 537, 696,  
 1137, 1416, 1689, 1702,  
 1785, 1786

- lætifica, 101  
 Lagaria, 164, 1607  
 Lagela, 1086  
 Lagoa, 1759  
 Lamberti, 1571  
 Lamis, 1183  
 Lamnis, 1072  
 lanata, 1472  
 lanceolata, 307, 1075, 1675,  
     1680  
 lanestris, 1469  
 lanestrus, 1470  
 Langsdorfia, 1527  
 lanifera, 1472  
 Lantanae, 695  
 Laocoön, 1372  
 Laora, 1482  
 Laphria, 102  
 lapidicella, 950  
 Laplacei, 914  
 Lapponica, 602  
 Laria, 829, 861, 1049, 1054  
 Laricis, 1436  
 Larissa, 1250  
 Larra, 1293  
 larvata, 1654  
 Laruma, 1115  
 Lasiocampa, 1427  
 Latagia, 1528  
 lateralis, 123, 225, 771,  
     924, 1520, 1634  
 Lathyri, 70, 864  
 laticilia, 401, 526  
 laticineta, 1683  
 latifascia, 193, 464, 831,  
     985, 1037, 1136, 1327,  
     1380, 1639  
 latilinea, 167  
 Latinus, 41, 1585  
 latipennis, 105, 1457  
 latistriga, 397, 1141  
 Latreilliana, 282  
 Latreillii, 17, 121, 597,  
     1588  
 Lavandulæ, 84, 92, 1590  
 Lavendera, 1274  
 Lavinia, 10  
 Lauria, 1671  
 Laurion, 426  
 Lauron, 333  
 Laurona, 1653  
 Leachii, 39, 1585  
 Lebeda, 1453  
 Lecontei, 651, 1781  
 lectrix, 47  
 Lederoriella, 947  
 Lefebviella, 931  
 Leilaria, 5  
 Leilus, 4  
 Leiocampa, 1002  
 Lemnica, 656  
 Lemonia, 1434  
 Leneus, 263  
 lentifera, 593  
 lentipes, 1469  
 Lenyra, 1690  
 Leonora, 44  
 Leontia, 389  
 Leopardina, 656  
 lepida, 571  
 Lepidopsyche, 931  
 leptalina, 435  
 Leptopterix, 930  
 Leptosoma, 391  
 Lepus, 666  
 Lerina, 477  
 Lerne, 657  
 Lethe, 221  
 Leto, 1263, 1571  
 leucaspis, 185, 186  
 leucographa, 1723  
 Leucoma, 828, 829, 1729  
 leucomela, 1589  
 leucomelas, 838, 1636  
 leuconota, 1537  
 leucophæa, 334, 352, 722,  
     870, 1738  
 Leucopsumia, 288  
 Leucopsumis, 310, 1649  
 leucopyga, 1477  
 leucosticta, 242  
 leucostigma, 248, 786, 1694,  
     1782  
 leucotelus, 486  
 Lewinæ, 43, 1489  
 Lewinii, 963, 1570  
 Libania, 1565  
 libelluloides, 1668  
 Liberia, 1292  
 Liboria, 511  
 Lichas, 211, 1622  
 lichenella, 953  
 lichenum, 954  
 Lieus, 18, 19, 1582  
 ligata, 119  
 lignaria, 1021  
 lignicolor, 1101  
 ligniperda, 1511  
 lignivora, 1570  
 lignosa, 1072, 1400, 1700,  
     1767  
 Ligula, 292  
 Limacodes, 329, 1143,  
     1145  
 Limacodidæ, 1102  
 Limacodidi, 1102  
 limax, 1146  
 Lincea, 361  
 Lineus, 1688  
 linea, 671  
 lineata, 672, 875, 907, 992,  
     1108  
 lineatus, 760  
 lineosa, 912, 1335, 1407,  
     1440, 1737  
 lineolalis, 578  
 lineolata, 1700  
 linguliformella, 955  
 Linus, 32, 1582  
 Liparidae, 777  
 Liparides, 777  
 Liparidi, 777  
 Liparis, 829, 1741, 1744  
 Listoca, 1021  
 Lithosia, 493, 1778  
 Lithosiidæ, 279, 1677  
 litura, 797, 1360  
 liturata, 988, 1540  
 lituratus, 1540  
 Lobeza, 1100  
 lobulina, 1408, 1681, 1785  
 Locha, 335, 1653  
 locuples, 1173  
 Lola, 1252  
 Lomelia, 1226  
 Lomera, 967  
 longalis, 377  
 Longara, 1026  
 longicornis, 1522  
 longipennis, 51, 510, 655,  
     1044  
 longivitta, 1754  
 Lonicerae, 75, 81  
 Lonomia, 1191, 1764  
 Lopera, 919  
 Lophocampa, 732  
 Lophopteryx, 1007  
 Lorquinella, 936  
 Loti, 75, 78, 1433  
 Lotrix, 566  
 Lowii, 591  
 lubricipeda, 664, 666  
 lubricipedatus, 666  
 lucens, 1111  
 Lucetius, 177  
 lucida, 1726  
 Lucilla, 1396  
 Lucina, 1316  
 luctifera, 53, 593, 751, 1728  
 luctuosa, 681  
 ludicra, 74  
 lugens, 1687  
 lugubris, 476, 927, 1506,  
     1680  
 lugubrosella, 929  
 Luna, 1260  
 lunata, 837, 879, 1731  
 lunatra, 879  
 lunigera, 1408  
 lunigeraria, 9  
 lunula, 1221  
 Lunus, 8, 9, 1580  
 lupulator, 1553  
 lupulina, 1553  
 lupulinus, 1553, 1554, 1555

- lurideola, 499  
 Lusca, 1436, 1441  
 Lusura, 1067, 1751  
 lutarella, 501, 502, 517  
 lutea, 502, 840  
 luteilinea, 471  
 luteipes, 843  
 luteola, 500, 502, 503  
 lutescens, 672, 837  
 lutosa, 502, 1710  
 Luxerii, 667  
 Lycastes, 72  
 Lysces, 366, 1656  
 Lycoides, 256  
 Lycomorpha, 287, 1644  
 Lycorea, 192  
 Lydia, 532  
 Lymantria, 870, 1741  
 Lymire, 489  
 Lyonetii, 1526  
 Lysceia, 541  
 Lyssa, 8
- M.
- MacCullochii, 60  
 Machilis, 1604  
 macilenta, 1557  
 Macleayi, 955  
 Macrocneme, 248, 1632  
 Macrogaster, 1542  
 Macroglossiadæ, 2  
 maculania, 605  
 macularia, 353, 424  
 maculata, 386, 396  
 maculatrix, 47, 1587, 1772  
 maculicollis, 730  
 maculifascia, 676  
 maculosa, 596, 881, 1775  
 maculosum, 1696  
 Madagascariensis, 222,  
     1466, 1624  
 Mænas, 1263, 1588  
 magna, 56, 1588  
 magnella, 938  
 magniferella, 937  
 magnifica, 1373  
 Maja, 248, 1267, 1317, 1632  
 Malabus, 716, 1703  
 Malacosoma, 1428, 1444  
 Malayanus, 407  
 Mali, 1480  
 Mallocephala, 709  
 Mangiferæ, 1234  
 Mannerheimii, 105  
 Mania, 9.  
 Mannii, 87, 1589  
 Manteo, 1024  
 Mappa, 1552  
 Marcel-Serresi, 31, 32  
 Marchalii, 656
- Marcipa, 807  
 margaritaceus, 720  
 Mareda, 1157  
 marginalis, 130, 618, 701,  
     805, 815, 845, 1401, 1691,  
     1693, 1731, 1736  
 marginata, 414, 512, 560,  
     704, 758, 877, 972, 1165,  
     1613, 1669, 1685  
 Mariana, 409, 911  
 Marica, 269  
 Maris, 20  
 Marissa, 174  
 maritima, 1041  
 marmorea, 1674  
 Mars, 408  
 Massaga, 358  
 Massicyta, 1712  
 massiliælla, 941  
 matrona, 617  
 matronalis, 625  
 matronula, 617  
 mauritanicum, 590, 763  
 mauritia, 455, 726  
 Mazceras, 632  
 Meander, 1326  
 Mecytha, 1121, 1756  
 Medarda, 470  
 Media, 1140  
 mediastina, 533  
 Medicaginis, 83, 863, 1433  
 Mediterranea, 104  
 Medusa, 91  
 Megæra, 301, 1378  
 Megalops, 1026, 1751  
 Megalopyge, 1468  
 Megasoma, 1446  
 Megisto, 45  
 Melagona, 1005  
 melaleuca, 173  
 Melameridæ, 1645  
 melana, 929  
 melanatella, 929  
 Melanitis, 314  
 melanocephala, 490  
 Melanochloros, 238  
 Melanchroia, 387, 1661  
 melanira, 927  
 melanomos, 518  
 melanoptera, 473  
 melanoseilla, 928  
 melanosticta, 848  
 Melanostigma, 1049  
 Melanthe, 229  
 Melanthis, 222  
 Melanthus, 222, 229, 727,  
     1626  
 Melas, 110, 133, 194, 928  
 Melasina, 475  
 melanaxantha, 15, 363  
 Melese, 491, 1681  
 Melia, 808
- Melite, 53, 1773  
 Meliloti, 75, 97  
 Melisa, 264  
 Melissa, 200  
 Melora, 773  
 Melsheimerii, 975  
 Melvilla, 1274  
 membiliaria, 448  
 Memusæ, 1300  
 mendica, 576, 664, 680  
 mendicus, 681  
 mendosa, 1752  
 Menea, 564, 1779  
 Menippe, 1243  
 Mennis, 379  
 Menthastræ, 664, 665  
 mentiens, 471, 811  
 Meon, 334, 1653  
 Meona, 990  
 Meone, 990, 1653  
 Meones, 224, 1625  
 Meonis, 224  
 mesembrynus, 67  
 Mesogona, 513  
 Mesomelas, 845  
 mesomella, 516  
 Mesora, 860  
 mesorhoda, 1704  
 Mesoscelis, 1428  
 Mesoscia, 1077, 1397  
 Messata, 1107  
 Mestrali, 120  
 Metabus, 1381, 1753  
 metachloros, 281  
 Metagarista, 60, 1589  
 metallica, 426, 1671  
 metamelas, 145  
 Metanastræ, 1346, 1428  
 metapyrrha, 1310  
 Metarcertia, 769  
 metarhoda, 1695  
 Metaxanthus, 198  
 Metea, 1291  
 Meteus, 1096, 1771  
 Metis, 277  
 metisa, 957  
 Metraga, 1129  
 Metura, 961  
 Metzli, 1280  
 Mevania, 442  
 micacea, 1772  
 micans, 107, 519, 827,  
     1623  
 Micilia, 329  
 micrattacus, 1335  
 Microdonta, 1010  
 Microgone, 1342  
 Microps, 1091  
 Micropus, 367, 377  
 Midama, 1670  
 Mieza, 527  
 Milhauseri, 990

- Milionia, 364, 1656  
 militaris, 405  
 Militta, 317, 364  
 Millefolii, 77  
 Millinella, 925  
 Miltocrista, 553, 1685  
 Mimallo, 1088, 1336, 1380,  
     1766  
 Mimon, 28  
 Mimosæ, 1261  
 Mina, 512  
 minora, 1711  
 minax, 987  
 Minceus, 122, 128  
 Minea, 1535  
 Mineus, 1535  
 mingens, 1047  
 miniata, 512, 553  
 ministra, 1061  
 minorella, 932  
 Minos, 67, 1589  
 minutæ, 126  
 mirabilis, 1186  
 Miresa, 1123  
 mitigata, 1639  
 mitis, 1646  
 moderata, 1501, 1533  
 modesta, 859, 1179, 1183,  
     1780  
 modestia, 1183  
 mœsta, 259, 1726  
 Molina, 1503  
 Molippa, 1345  
 mollis, 1405, 1774  
 Mona, 382  
 Monacha, 871  
 monachalis, 578  
 monachus, 871  
 Monema, 1112  
 monilis, 308  
 Mononeura, 468  
 montana, 631, 1437  
 monticola, 1437  
 Monura, 1630  
 Monycha, 451  
 Mopsa, 35, 621, 1233, 1584  
 Morasa, 859  
 Moresa, 1170  
 Mori, 1505  
 Morio, 482, 593, 788  
 Morosina, 504  
 Morpheis, 1528, 1546  
 Mosara, 1032  
 Motada, 924  
 mucoreus, 1517  
 multicincta, 163, 1606  
 multicolor, 1364  
 multifaria, 479  
 multigutta, 134  
 multiguttata, 657  
 Mummia, 758  
 munda, 575, 875, 1605, 1680  
 mundana, 575  
 mundanus, 576  
 murina, 576, 681, 921,  
     1082, 1548  
 murinella, 945  
 Musæ, 1519  
 Musca, 942  
 muscella, 941, 942, 948  
 muscerda, 503  
 mutans, 296, 904, 1697  
 mutata, 296, 873, 1648  
 Mycalia, 1694  
 Myceria, 1481  
 Myelobia, 1546  
 Mygdon, 28  
 Mylitta, 1247, 1378  
 Myodes, 125  
 Myonia, 308, 1649  
 Myops, 1312, 1380  
 Myrice, 555  
 Myrmecopsis, 195, 1620  
 myrmidonella, 946  
 Myrrha, 372  
 Myrtle, 200  
 mystica, 239  
 Mythimna, 1216
- N.
- Naclia, 135  
 Nadata, 1062  
 Nadiasa, 1014  
 Nænia, 1344  
 Nais, 609, 1584  
 Namouna, 415, 1669  
 nana, 507, 945, 951, 1421,  
     1652  
 nanus, 1335, 1565  
 Napata, 231  
 Naprepa, 1046, 1152  
 Narcissus, 458  
 Naroma, 1744  
 Narosa, 1151  
 nasuta, 1420  
 Natada, 1108  
 Nataxa, 1179  
 Nausica, 1308, 1309  
 Naxa, 1742  
 Neæra, 1138  
 nebulosa, 110, 1541, 1591  
 nebulosus, 1541, 1553  
 Negera, 1171  
 neglecta, 234  
 Nelo, 385  
 Nematocera, 1  
 Nemeophila, 623  
 Nemeta, 968, 1083  
 nemophila, 743  
 nemorosa, 1554  
 Neochera, 448  
 neogena, 1751  
 Neola, 1033  
 Nepalensis, 1557  
 Nepe, 336  
 Nerice, 1076  
 Nerina, 404, 1667  
 Neritos, 711  
 nervosa, 294  
 Nesara, 1152  
 Nesea, 1000  
 Netria, 1504  
 Netrix, 1740  
 Nevadensis, 71  
 neurophylla, 1710  
 neuroptera, 1642  
 Neustria, 1487  
 Neustrius, 1486  
 nexa, 1627  
 Niaca, 1156  
 Nicita, 1697  
 Nicon, 31  
 Nicothoe, 897  
 nictitans, 508, 1230  
 Nigasa, 853  
 nigrella, 942  
 nigricans, 937  
 nigricantella, 937  
 nigricornis, 200, 1560  
 nigrigemma, 141  
 nigriinea, 1678  
 nigripalpis, 1096  
 nigripars, 1779  
 nigriplaga, 692  
 nigrolucidella, 948  
 nigropoda, 509  
 Nioda, 1069, 1752  
 Nisaga, 885  
 nitens, 1069  
 nitida, 951  
 nitidella, 951, 952  
 nivea, 831, 1778  
 niveifascia, 1628  
 niveigutta, 526, 1709  
 nivosa, 830  
 nobilis, 524, 1456  
 nobilitella, 524, 1683  
 nocens, 1398  
 noctilux, 312, 1427  
 Noctua, 7, 41  
 Noema, 1090  
 Nola, 577  
 Noleca, 1079  
 Nomaqua, 1560  
 Nonagrioides, 1514  
 Norape, 774  
 Norma, 1609  
 Northia, 141, 1600  
 Nostalis, 129  
 notabilis, 144, 852  
 notata, 472, 919, 1155,  
     1758  
 Notodonta, 995, 1749  
 Notodontidæ, 977

*Notodontites*, 977  
*Novaë Hiberniae*, 45  
*Novaë Zealandiae*, 1573  
*nubeculosa*, 1036  
*nubila*, 349, 1065, 1356  
*nuda*, 576, 1476  
*Nudaria*, 575, 931  
*nudella*, 946  
*Numana*, 342  
*Numenes*, 662  
*Numenia*, 343  
*Nyctalemon*, 7, 1580, 1771  
*Nyctea*, 229  
*Nyctemera*, 391, 1663  
*Nyctemeridae*, 1659  
*Nycteus*, 229  
*Nyctimena*, 1290  
*Nyctimene*, 1379  
*Nygma*, 1730  
*Nyssia*, 1123, 1132

## O.

*obesa*, 695  
*obliqua*, 679, 973, 1194, 1734  
*obliquus*, 1553  
*obliterata*, 691, 1005  
*oblonga*, 1296  
*obscura*, 135, 1464, 1481, 1643  
*obscurum*, 1452, 1696  
*obsoleta*, 839, 880, 1381  
*obtusa*, 1167, 1355, 1663; 1666  
*occidentalis*, 6  
*occidentis*, 403, 1392  
*occitanica*, 95, 96  
*ocellata*, 887, 1377  
*ocellifera*, 620  
*ocellina*, 571  
*Ocha*, 1493  
*ochracea*, 1107  
*ochreola*, 500  
*ochropoda*, 1730  
*ochrostigma*, 1004  
*Ochsenheimeri*, 86, 121  
*Ocheria*, 789  
*Ocinara*, 1768  
*Oeneria*, 1704  
*Ocnogyna*, 1692  
*octomaculata*, 59  
*ocularia*, 689  
*oculatissima*, 689  
*Ogenes*, 1399  
*Odenestis*, 1406, 1409  
*Odontosia*, 1005, 1097  
*odyneroides*, 1604  
*Oenistis*, 495  
*Oenosanda*, 1713  
*Ogoa*, 1763

*Oiketicus*, 937, 961  
*Olapa*, 823  
*Olistheria*, 1397, 1696  
*Olivieri*, 94  
*Omphale*, 168, 1611  
*Omphalia*, 1484  
*Oncopera*, 1558  
*Onobrychis*, 96, 97  
*Onythes*, 749  
*opaca*, 1620  
*opacella*, 939  
*opalina*, 817  
*opercularis*, 1760  
*Opharus*, 728, 1704  
*Ophion*, 191  
*Ophthalmis*, 361, 1655  
*oppomens*, 1462  
*opposita*, 260  
*Opsirhina*, 1418  
*opulenta*, 210, 1621  
*orana*, 98, 1082  
*Orasia*, 1350  
*orbicularis*, 445  
*Orcus*, 1085  
*Oregyia*, 861, 1059  
*Orestes*, 26  
*Oreta*, 1166  
*Orgya*, 828, 829, 861, 1059  
*Orgyia*, 780, 1723  
*Oribasus*, 95  
*Oricea*, 476  
*orientalis*, 7, 658  
*Orion*, 103  
*orislinea*, 379  
*Orithea*, 37, 1584  
*Orizaba*, 1201  
*Ormiscodes*, 1346  
*ornanda*, 1403  
*ornata*, 1403  
*ornatrix*, 567  
*ornatula*, 163  
*Orobi*, 82  
*Orontes*, 7  
*Orontiaria*, 7  
*Orsa*, 695  
*Orsilache*, 988  
*Orsilochus*, 988  
*Orsinome*, 1380  
*Orthane*, 1380  
*Orthia*, 1582  
*Orthides*, 2  
*Orthorhina*, 1006  
*Orycnia*, 274  
*Osinis*, 370  
*Ostorius*, 41  
*Otroeda*, 402, 1667  
*Otus*, 1423  
*ovina*, 834  
*Ovios*, 753  
*Oxicesta*, 787  
*Oxleyi*, 1119  
*Oxyeanus*, 1573

*Oxytenis*, 1181, 1762  
*Oxytropis*, 93

## P.

*Fachygastria*, 1428  
*Pachypasa*, 1422  
*Pagara*, 1678  
*Paidia*, 512  
*Pais*, 61  
*Palatinus*, 25  
*paleacea*, 1547  
*paleiferella*, 938  
*Pales*, 54  
*Pallasia*, 24  
*Pallene*, 542  
*pallens*, 1546, 1556  
*palleola*, 501  
*pallida*, 52, 912, 1077, 1114, 1148, 1417, 1763  
*pallidicosta*, 749  
*pallidum*, 1450  
*pallidus*, 1480  
*palliola*, 578  
*palliolalis*, 578  
*Palmarum*, 1531  
*Palmyra*, 342  
*palpalis*, 735, 1105  
*palpina*, 1006  
*Pamea*, 1153, 1758  
*Pampa*, 238, 1629  
*panda*, 1447  
*Pandala*, 921  
*Pandiona*, 1089  
*Pania*, 982  
*Panisa*, 969  
*Panopes*, 1612  
*Pantana*, 819  
*pantherina*, 1524  
*pantherinus*, 1524  
*Panthona*, 417  
*Paphia*, 1245, 1248  
*Papilio*, 1, 4, 16, 40  
*papilionaria*, 411  
*Papilionaris*, 416, 1669  
*Papiliones*, 1  
*Papilionidae*, 4  
*Papilionides*, 1  
*Papyratia*, 665  
*Papyratius*, 665  
*Paracles*, 717  
*paradoxa*, 116, 784, 864, 1582, 1776  
*Parasema*, 602  
*Parasemia*, 623  
*parasita*, 589, 763  
*parasitum*, 589, 763  
*Parathyris*, 1087, 1740  
*pardale*, 1453  
*pardalina*, 652, 1712

- pardalis, 721  
 parnassiodes, 350  
 Parthenice, 608  
 Parthenos, 608  
 partita, 335  
 parva, 892  
 parvigutta, 1015  
 Pasimuntia, 657  
 Passalis, 123  
 patens, 1382  
 Patroclaria, 8  
 Patroclus, 8  
 patula, 349, 903, 1189  
 Pavonia, 1269, 1270, 1271  
 Pavoniella, 1271  
 paucipunctata, 1537  
 pectinata, 254  
 pectinea, 946  
 pectinella, 945, 950  
 pectinicornis, 420, 1669  
 pectoralis, 133  
 Pedasus, 1586  
 Pelasgus, 22, 1582  
 Pellex, 388  
 pellucida, 1496, 1729  
 Pelochyta, 623, 726  
 Pelora, 1118  
 Pelosias, 497  
 Penella, 116, 1755  
 Penelope, 1766  
 Penora, 821  
 Penthica, 1506  
 Penthophora, 788  
 Perbosci, 155  
 Percote, 492  
 Perdica, 337, 1653  
 peregrina, 551, 1183  
 perfusca, 978  
 Pericallia, 616, 1693  
 Pericopidae, 1653  
 Pericopis, 343, 1654, 1778  
 Peridea, 995, 1037  
 Peridrome, 444  
 Periga, 1197  
 Perina, 966  
 Peripheta, 1579  
 Periphoba, 1346, 1428  
 Perisomena, 1276  
 perla, 504  
 perlella, 504  
 perlucidella, 946  
 Perna, 1127, 1757  
 Pernyi, 1248, 1379  
 perobliqua, 853  
 Perola, 920  
 Perophora, 974  
 perornata, 548  
 Perrottetii, 1379  
 perplexa, 113  
 perpusilla, 1720  
 Persona, 649  
 perspicilla, 1740
- perspicua, 344, 398, 1196,  
     1627  
 Pertyi, 1609  
 Petalia, 457  
 Petasia, 1035, 1061  
 Petiveri, 1245, 1379  
 Petosiris, 925  
 Petovia, 559, 1685  
 petrella, 954  
 petrosa, 626  
 Peucedani, 89, 1589  
 Phaea, 96, 97  
 Phacusa, 150, 175  
 Phadima, 1009, 1381  
 Phædria, 1501  
 Phædusa, 1229, 1784  
 Phægorista, 354, 1589  
 Phæochlæna, 375, 467,  
     1677  
 phæorrhæa, 833  
 phæorrhæus, 833  
 Phalacropterix, 930  
 Phalæna, 1  
 phalænaria, 421, 1670  
 Phalænites, 1198  
 Phalænoidea, 40  
 Phalanna, 218, 1624  
 Phalaris, 28  
 Phalcidon, 301  
 Phalera, 1049  
 Phaloe, 355  
 Phaloësia, 359  
 Phaneta, 1382  
 Phantomia, 988  
 Phara, 321  
 Pharmacis, 1550  
 Phaos, 627  
 Phasis, 312  
 Phassus, 1566  
 Phavaræa, 315  
 Phauda, 256, 1634  
 Phecdala, 1752  
 Phedonia, 1685  
 Phegea, 118  
 Pheia, 146  
 Phelloe, 320  
 Phemonœ, 247  
 Pheosia, 1001  
 Pheres, 162, 1606  
 Phidonia, 1393  
 Philea, 514  
 Philenora, 410  
 Phileta, 460  
 Philomela, 1658  
 Philona, 456  
 Philopalus, 1438  
 Philorus, 283  
 Phineca, 1746  
 Phintia, 306  
 Phlegmon, 1627  
 Phœbe, 997  
 Pholus, 287
- Phoronea, 1375  
 Phragmatæcia, 1542  
 Phragmatobia, 628, 1694  
 Phricodia, 1346  
 phryganilugubrella, 929  
 Phryganoides, 731  
 Phyllalia, 1494  
 Phyllodesma, 1390  
 Phyllæcia, 248  
 Phyllira, 610, 1780  
 Pica, 743, 1318  
 picta, 40, 176, 181, 790,  
     1135, 1614  
 pictula, 181, 1614  
 Pidora, 1670  
 Pidorus, 424  
 Pielus, 1576  
 Pieridoides, 1669  
 Pierreti, 590  
 Pierus, 266  
 pigra, 1057  
 Pilarge, 305  
 Pilatii, 270  
 Pilosellæ, 68  
 Pilumnia, 1703  
 Pinara, 761, 1711  
 pinguis, 1119  
 Pini, 1406, 1784  
 pinivora, 1041  
 Pintia, 280, 1644  
 Pinus, 1407  
 Pionia, 255, 1633  
 Pirrha, 21  
 Pitane, 462, 531  
 Pithea, 1701  
 Pitheciun, 1758  
 Pithyocampa, 1424  
 Pitthea, 463  
 Pityocampa, 1040, 1424  
 Placentia, 610  
 placida, 629  
 plagia, 1761  
 plagiata, 457, 562, 655,  
     799, 810, 858, 1341, 1464,  
     1494, 1687, 1749  
 plagiatus, 1515  
 plagiæra, 400, 1459, 1656  
 plana, 37, 450, 507, 786,  
     892, 958, 1191, 1338,  
     1362, 1380, 1402, 1436,  
     1731  
 Plantaginis, 623, 648  
 Plateia, 1346, 1722  
 platyleuca, 198  
 Plataptericidæ, 1158  
 Platypteridæ, 1158  
 Platypteryx, 1159  
 plebeia, 1621  
 plena, 1668  
 Pleretes, 1693  
 Plugma, 1134  
 plumbeola, 498, 499

- plumbeolata, 497  
 plumella, 948, 949  
 plumifera, 943  
 plumifereilla, 943  
 plumigera, 1097  
 plumigerella, 943  
 plumipes, 252, 907  
 plumistra, 942  
 plumistrea, 948  
 plumistrella, 943  
 plumosella, 925  
 Pluto, 69, 1330  
 Podalia, 1714  
 Podarce, 306  
 Pœcilocampa, 1474  
 Pœcilosoma, 158, 1605  
 Polistes, 196  
 politela, 931  
 Pollanisus, 1591  
 Poloma, 858  
 Polybia, 1350  
 Polydamon, 124, 1592  
 Polydora, 410  
 Polygalæ, 67, 68  
 Polymena, 219, 1624  
 Polymona, 768, 1421  
 Polypheme, 1225  
 Polyphemus, 1225  
 Polythrysana, 1314  
 Pempelon, 413, 1669  
 Pompiloides, 156  
 Pompostola, 206, 1620  
 Populeus, 1475  
 Populi, 1475, 1515  
 Populifolia, 1391  
 porcellana, 1002  
 Porela, 772  
 Porina, 1572  
 Poroma, 1022  
 Porphyria, 157, 321, 1604  
 Porthesia, 832  
 Porthetria, 870  
 Pollanisus, 114  
 postflava, 201  
 postica, 178, 371, 492, 803,  
     899, 971, 1028, 1121,  
     1190, 1630, 1750  
 posticalis, 15  
 posticus, 360  
 potatoria, 1410, 1785  
 potatorius, 1410  
 prasina, 1417  
 Praslini, 45  
 pratensis, 82  
 pratorum, 82  
 Pretus, 252, 1632  
 primativa, 1476  
 princeps, 1374  
 principalis, 653, 1376  
 Prionia, 1159  
 Priverna, 468  
 Privigna, 468
- processionea, 1041  
 Procodeca, 812  
 Procides, 63  
 Procris, 105, 1590  
 Procroides, 729  
 producta, 1031, 1465  
 Proses, 409  
 prolifera, 302  
 Promethea, 1223  
 Prometheus, 6, 20  
 proupta, 1437  
 Promula, 1395  
 Proserpina, 217, 1317  
 Prothysana, 1175  
 proxima, 50  
 Pruni, 108, 1411  
 Psamas, 641  
 Psaphis, 433  
 Pseuderminea, 668  
 pseudobombycella, 932  
 Pseudobombycini, 977  
 Pseudomesa, 923  
 Pseudomya, 142, 250, 1601  
 Pseudopasa, 958  
 Pseudosphex, 195, 1618  
 Psichotoe, 1597  
 Psilura, 871  
 psorica, 1484  
 Psychagrapha, 957  
 Psychanisa, 958  
 Psyche, 927, 930  
 Psychidæ, 926  
 Psychides, 926  
 Psychoidea, 956  
 Psychomorpha, 386  
 Pterocera, 883  
 Pterostoma, 1005  
 Pterothysanus, 401  
 Ptilodontis, 1005  
 Ptilomacra, 1098  
 Ptilophora, 1097  
 pudens, 764  
 pudibunda, 862  
 pudibundus, 862  
 pudica, 591  
 pudorina, 504  
 puella, 549, 775, 1647  
 Pugione, 211, 1622  
 pulchella, 80, 419, 431,  
     566, 1671  
 pulchra, 162, 566  
 pulchricolora, 381  
 pulchricornis, 1358  
 pulla, 942, 948  
 pullela, 948  
 pulliparvella, 948  
 pullisimelella, 948  
 punctarium, 1696  
 punctata, 135, 136, 249,  
     929, 1111, 1418, 1752,  
     1761  
 punctatella, 929
- punctatissima, 669  
 punctifascia, 857, 1472  
 punctifera, 792  
 punctiger, 752, 1711  
 punctigera, 475, 752, 974,  
     1655  
 punctistriga, 676, 1491  
 punctivaga, 682  
 punctivena, 1492  
 punctivitta, 673  
 punctulata, 1750  
 punctum, 70  
 punica, 1141  
 pupula, 522, 528  
 para, 1732  
 Purius, 719, 1703  
 purpuralis, 68, 71  
 purpurascens, 800, 1367  
 purpurea, 606  
 purpureus, 606  
 pusilla, 112, 1127, 1404,  
     1538  
 pustulata, 1547  
 putrida, 1531  
 Pydna, 1753  
 Pygæra, 1049, 1054, 1088  
 Pygærides, 977  
 Pygæridi, 977  
 pygmæa, 507, 793  
 pygmeola, 502  
 Pylades, 17  
 Pylotis, 362, 389, 570, 1661  
 Pyracmon, 1531  
 Pyralis, 577  
 pyraloides, 376, 525, 1658  
 Pyrenaicus, 1555  
 Pyretorum, 1273  
 Pyri, 1269, 1487  
 Pyrina, 1529, 1530  
 Pyrinus, 1530  
 Pyromorpha, 1644  
 Pyrrho, 1656  
 pyrrhomelas, 1301  
 pyrrhorhæa, 330  
 Pythia, 8, 69, 70  
 pyzidifera, 1760

## Q.

- quadra, 496, 636  
 quadrata, 812, 1132  
 quadricincta, 1370  
 quadricolor, 443, 722, 1596,  
     1677  
 quadrigutta, 245, 1117,  
     1691  
 quadriguttalis, 59  
 quadrinotatus, 1521  
 quadruplagiata, 923  
 quadriramosa, 675  
 quadriramosum, 1694

- Quenselii*, 597, 1780  
*Querceti*, 1144  
*Quercicola*, 144  
*Quercifolia*, 1390  
*Quercifolium*, 1390  
*Quercifolius*, 1390  
*Quercus*, 119, 1430, 1433  
*Querna*, 1012
- R.**
- radians*, 632  
*radiata*, 459, 667, 1664  
*radiatus*, 667  
*radiella*, 948  
*Rafflesia*, 12, 1580  
*Ramesa*, 1016  
*ramosa*, 518  
*recens*, 785  
*reclusa*, 1057  
*reclusus*, 1057  
*recta*, 1461  
*rectilinea*, 56, 1582  
*Redoa*, 826, 1728  
*Redtenbachii*, 1530  
*reducta*, 888, 1411, 1638  
*regalis*, 210, 1372, 1621  
*regia*, 1372  
*regina*, 925, 1742  
*rejecta*, 520  
*religiosa*, 1506  
*remota*, 170, 431, 821, 1439,  
    1649, 1671  
*Renada*, 771  
*repanda*, 375, 711, 1141,  
    1447, 1460  
*repandum*, 1447  
*Repena*, 799, 1724  
*replana*, 507, 1682  
*repleta*, 300, 896  
*reticula*, 949  
*reticulata*, 856  
*reticulatella*, 949  
*Rethona*, 1042  
*Retina*, 438  
*Rhabdosia*, 1397  
*Rhadamanthus*, 92, 1590  
*Rhebus*, 213  
*Rhesyncytis*, 1320  
*Rhipha*, 273  
*Rhiphearia*, 7  
*Rhipheus*, 6, 1580  
*Rhizoma*, 1542  
*Rhodogastria*, 453, 613,  
    727  
*Rhodope*, 412, 1386  
*rhodophila*, 1638  
*rhomboidea*, 1642  
*Rhopalocera*, 1  
*Rhosus*, 359  
*Rhyparia*, 606
- Rica*, 333  
*Ricine*, 824  
*Rigema*, 1079  
*Rilia*, 1075  
*rimicola*, 1468  
*Rinaca*, 1275  
*Riphea*, 1767  
*Ripisa*, 1082  
*Rippertii*, 474  
*Risa*, 429  
*rivularis*, 665  
*rivilosa*, 540, 873, 1381  
*Robiniæ*, 1514  
*Roboreus*, 1013  
*roboricolella*, 952  
*Roboris*, 1013, 1431  
*robusta*, 799  
*Rœselia*, 577  
*Rognada*, 96  
*Rolepa*, 770  
*Romeo*, 78  
*Romosa*, 1114  
*Ropalocera*, 1  
*Rosa*, 271  
*rosacordis*, 1365  
*Rosama*, 1066  
*rosicida*, 515  
*rosicidella*, 515  
*rosea*, 554, 1164  
*Rosema*, 1168, 1762  
*Rosina*, 270  
*Rossica*, 650  
*Rossii*, 866, 1737  
*rotunda*, 575  
*rotundata*, 802, 851  
*rotundella*, 947  
*rubea*, 789  
*rubescens*, 1545  
*Rubi*, 1429  
*Rubus*, 1429  
*rubicunda*, 67, 554, 1497  
*rubicundaria*, 536  
*rubiginosa*, 1108  
*rubiginosus*, 1517  
*rubra*, 1720  
*rubrescens*, 677, 1281, 1315  
*rubrieeps*, 283  
*rubricollis*, 483  
*rubripes*, 709  
*rubriplaga*, 712  
*rubrivitta*, 439  
*rubroviridans*, 1570  
*rufeola*, 512  
*rufescens*, 769; 1109, 1138,  
    1395, 1575  
*ruffa*, 1178  
*ruficeps*, 198, 284, 1620  
*ruficollis*, 565  
*rufifemur*, 747, 768  
*rufiventris*, 110, 1591  
*rufoflava*, 1129  
*rufosignata*, 1446
- rugosa*, 1109, 1113  
*rupestris*, 783  
*Ruscino*, 563  
*Russula*, 635  
*rustica*, 681, 1356  
*Rutilus*, 1637
- S.**
- Sabina*, 1345  
*Saccophora*, 931, 974  
*sacrifica*, 1780  
*Sagana*, 1234  
*Sagaris*, 313, 1651  
*Salicicola*, 1524  
*Salicinus*, 842  
*Salicis*, 841, 986  
*salicolella*, 952  
*Salmonea*, 1285  
*Samia*, 1220, 1222  
*Sanega*, 1085  
*Sangala*, 384  
*Sangarida*, 620  
*sanguiflua*, 187, 415  
*sanguinea*, 172, 551  
*sanguinolenta*, 702, 715  
*sanguinolentus*, 715  
*Sannio*, 636  
*Sannius*, 636  
*Saportæ*, 67  
*Sapotoza*, 1235  
*Sapphirina*, 465  
*Sarapus*, 760  
*Sarosa*, 151  
*Sarpedon*, 72, 1589  
*Sarsina*, 800  
*Satellitia*, 1090, 1366  
*Satrapes*, 23  
*saturata*, 1282, 1340, 1635  
*Saturnia*, 1187, 1268  
*Saturnides*, 1198  
*Saturniidæ*, 1198  
*Saturnus*, 1222, 1230  
*saucia*, 190, 359, 683, 725  
*Saulayi*, 230  
*Saundersii*, 962  
*saxeola*, 506  
*saxicolella*, 951  
*Scabiosæ*, 68, 71  
*scalaris*, 1538  
*Scaptia*, 376  
*Scaptius*, 642  
*scapularis*, 41  
*scariosa*, 1572  
*Scea*, 293, 1647  
*Seedros*, 316  
*Scena*, 263  
*Scepsis*, 285  
*Schaefferi*, 91  
*Schizura*, 1026  
*Schœnherri*, 120, 1592

- Sciathos*, 752, 1711  
*Scinula*, 1163, 1782  
*scintillans*, 441, 1605, 1671,  
 1734  
*scita*, 1611  
*Scopelodes*, 1104  
*scoriacea*, 1060  
*Scotura*, 524  
*Scovitzii*, 94  
*Scribonia*, 689  
*Scyton*, 645  
*secta*, 1652  
*securis*, 1762  
*Secusio*, 558, 1685  
*Sedi*, 95  
*Sedonia*, 1641  
*selecta*, 399, 1615  
*Selene*, 413, 1262, 1584,  
 1668  
*selenitica*, 864  
*Selva*, 1614  
*semiaurata*, 207, 1033  
*semicæca*, 1277, 1382  
*semihyalina*, 197, 434  
*semilugubrella*, 928  
*semicana*, 681, 1121  
*semicincta*, 620  
*semidiaphana*, 285  
*semifascia*, 521, 1151  
*semiluna*, 272  
*semiramis*, 1265  
*Semirosea*, 1359  
*semirufa*, 1708  
*semistria*, 321  
*semivaria*, 1707  
*Semyra*, 1130, 1758  
*Semyron*, 1585  
*Senatoria*, 1496  
*senex*, 575, 1098  
*separata*, 491, 1618, 1675  
*Sepium*, 110  
*Septentrionis*, 1038  
*sequens*, 115  
*Sericaria*, 269, 1049, 1384,  
 1505, 1614  
*sericea*, 1178, 1627  
*Sericina*, 788  
*Seriphia*, 441  
*Sermyla*, 461  
*Serpyni*, 1590  
*Serpilli*, 79  
*serrata*, 996  
*serraticornis*, 1553  
*serva*, 136, 506  
*Servula*, 1412  
*Seryda*, 1598  
*Sesapa*, 547  
*Sesia*, 2, 3, 1642  
*Sesiariæ*, 2  
*Sesides*, 2  
*Sesii*, 2  
*Sesiidae*, 2
- Sesiiformis*, 151  
*Setina*, 483, 493, 514  
*Setora*, 1069  
*setosa*, 1641  
*sexpunctata*, 432  
*Siccia*, 539  
*sicula*, 604, 1160, 1162  
*Siculella*, 940  
*Sidana*, 1087  
*Sidyma*, 1686  
*Signa*, 550  
*signata*, 495, 515, 849, 1537,  
 1563, 1594  
*signatura*, 493  
*signifer*, 1561  
*signifera*, 911, 1744  
*Siletti*, 663  
*Silhetica*, 1219  
*Silvandra*, 450, 1674  
*Silveria*, 1758  
*Simena*, 1728  
*similis*, 1071, 1648  
*Simla*, 1249  
*Simois*, 1078  
*simplex*, 129, 553, 687,  
 692, 699, 885, 891, 1256,  
 1473, 1592, 1603, 1679,  
 1764  
*Simplonica*, 597  
*simulans*, 373, 1478  
*Sinaga*, 855  
*Sinensis*, 280, 520, 829,  
 1093, 1264, 1759  
*singularis*, 182  
*Sinope*, 1331  
*Siosta*, 1687  
*Sitina*, 854  
*Siva*, 1443  
*Sloanaria*, 6  
*Sloaneus*, 6  
*Sloanus*, 6  
*Smerinthia*, 1547  
*Smilax*, 1333  
*sobria*, 319, 540, 1018,  
 1168, 1651  
*socialis*, 1445  
*Socrus*, 1728  
*Solenobia*, 931  
*solita*, 521  
*solitaris*, 1042  
*Soloe*, 557  
*Somara*, 1125  
*Somena*, 1734  
*Somera*, 882  
*Sommeria*, 523  
*Somniculosa*, 1360  
*Sontia*, 1641  
*Sophia*, 34, 1584  
*Sorama*, 1034  
*sordida*, 684, 719, 1617,  
 1732  
*sordidus*, 1578
- Sorema*, 1064  
*Soritia*, 435  
*sortita*, 184, 1609  
*Spatialia*, 1010  
*Sparshalli*, 844  
*Spartii*, 1431  
*speciosa*, 568, 1363  
*spectabilis*, 686, 1316  
*specularis*, 743, 1665  
*speculifer*, 1206  
*sperans*, 1606  
*Sperbius*, 125  
*Sperchius*, 220, 221  
*speciosa*, 460, 1685  
*spectra*, 821, 840  
*Sphingiadæ*, 2  
*Sphingidæ*, 2  
*sphingidea*, 261  
*Sphingides*, 2, 10, 63  
*Sphingii*, 2  
*Sphinx*, 1, 2, 3, 1035, 1036,  
 1422, 1532  
*Spicæ*, 92  
*Spilosoma*, 663, 766, 1694,  
 1713  
*Spini*, 1270  
*Spinigera*,  
*Spinula*, 1178  
*Spinuloides*, 1147  
*Spiris*, 472, 1678  
*Spixii*, 17  
*splendida*, 782, 1623  
*squalida*, 1761  
*squamosa*, 920  
*Statices*, 106, 1590  
*Stauropus*, 1019  
*Stenele*, 356  
*Stentzii*, 75  
*Sternbergii*, 31  
*Sterrhopterix*, 930  
*Stetinensis*, 934  
*Stettinella*, 934  
*Stettinensis*, 934  
*stigma*, 1496  
*stigmatella*, 955  
*Stilpnotta*, 841, 1732  
*stipata*, 114, 1184  
*Stoberi*, 505  
*Stoechadis*, 83  
*Stomoxella*, 941  
*straminea*, 1685  
*stramineola*, 498  
*Stratonice*, 342  
*Strebote*, 1397, 1446  
*striata*, 473, 509  
*strigata*, 30, 559  
*strigatula*, 613  
*strigina*, 913  
*strigiventris*, 677  
*strigosa*, 273, 459, 597,  
 615, 736, 1043, 1066  
*strigula*, 577

- strigulalis*, 577  
*strigulosa*, 737, 1534  
*Strix*, 1521  
*structa*, 543  
*stulta*, 1601  
*Stygia*, 927  
*stygiella*, 930  
*Stygne*, 313, 1651  
*Styx*, 264  
*Suana*, 1502  
*subacta*, 834  
*subalba*, 374  
*subapicalis*, 190, 352, 470,  
  814  
*subaurata*, 149, 1593  
*subcana*, 390, 1311  
*subcarnea*, 675  
*subcordata*, 132  
*subcyanea*, 230, 430, 443  
*subcyanescens*, 417, 1669  
*subdivis*, 1180  
*Suberifolia*, 1391  
*subfalcata*, 894  
*subfascia*, 446, 678, 1426  
*subfasciata*, 855  
*subfervens*, 528  
*subflamma*, 159, 1612  
*subflava*, 918  
*subguttala*, 347, 1025  
*subjecta*, 534  
*subluna*, 480  
*sublutea*, 1671  
*submacula*, 214, 472, 679,  
  1192, 1303  
*submarginata*, 350, 826  
*subnotata*, 803  
*subnuda*, 814  
*subocellatum*, 1697  
*subocellatus*, 1523  
*subornata*, 550  
*subpicta*, 39  
*subplena*, 266  
*subpunctata*, 1110  
*subrepleta*, 406  
*subretracta*, 1676  
*subrosea*, 801  
*subrigosa*, 794, 825, 1441  
*subtincta*, 843  
*subvaria*, 25, 374, 637,  
  1562  
*subvarius*, 1575  
*subvittata*, 1662  
*suffusa*, 488, 677, 745, 824,  
  1167  
*sulphurea*, 1146, 1394  
*sumptuosus*, 634  
*superans*, 876  
*Suraka*, 1246  
*Sureta*, 1073  
*Surida*, 1145  
*Surinamensis*, 5  
*Susica*, 1113  
*Sybaris*, 361, 1655  
*Sylla*, 1325  
*Sylvina*, 754, 1554  
*Sylvinus*, 1554  
*Sylvius*, 269, 1638  
*Syma*, 334  
*Sympalamides*, 28  
*Synemon*, 33, 1583  
*Syntomeida*, 1777  
*Syntomides*, 63  
*Syntomis*, 117, 1592  
*Syntomoides*, 227  
*Syphax*, 21  
*Syphilus*, 260, 1637  
*Syracusia*, 69  
*Syringa*, 572  
*Syssaura*, 1159, 1181  
*Syssiphinx*, 1503
- T.
- Tabanella*, 942  
*tabanivicina*, 935  
*tabulella*, 952  
*Tacillia*, 1490  
*Tadana*, 990  
*Tadema*, 1758  
*Tænia*, 927  
*Tagora*, 1188, 1196  
*Talæporia*, 931  
*Talas*, 1219  
*Talima*, 1120  
*Tanada*, 1745  
*Tantalus*, 911  
*Taprobanes*, 435, 1683  
*Taprobanis*, 542  
*Taraxaci*, 1434, 1435  
*Taraxaconis*, 1434  
*Tarnierella*, 946  
*Tarpeius*, 1348  
*Tarquiniae*, 1348  
*Tarquinius*, 1348  
*tarsalis*, 196, 842, 1633  
*Tascia*, 1600  
*Tasema*, 1597  
*Tasmanie*, 1577  
*Tau*, 1314  
*Taxila*, 764  
*Teara*, 846, 1732, 1783  
*Teda*, 177  
*Teia*, 803  
*Telea*, 1225  
*Telephus*, 170, 1612, 1613  
*Temenus*, 173  
*temperata*, 823, 1656  
*Templetonii*, 965  
*tendinosa*, 467  
*tenebrosa*, 150, 240, 1507,  
  1592, 1725  
*tenera*, 682, 1699  
*Tengyra*, 167, 1610
- tenthredoides*, 1610  
*tenuis*, 1595  
*tepens*, 390  
*Tephra*, 869  
*Tepilia*, 1176  
*Teragra*, 1064  
*Terasion*, 1019  
*Teratopteris*, 1184  
*Terebinthi*, 865  
*terebra*, 1512  
*teredo*, 1513  
*Terina*, 464  
*Termessa*, 1689, 1786  
*terminalis*, 130, 231, 478,  
  531, 794, 1175, 1587,  
  1633, 1733  
*terminata*, 1099  
*Terreni*, 1431  
*terrifica*, 990  
*tertius*, 965  
*tessellaris*, 732, 1705  
*tessellata*, 592  
*tessellatus*, 1568  
*tessellea*, 932  
*tessera*, 1520  
*testacea*, 196, 670, 683, 826,  
  906, 1122, 1545, 1754  
*testudinana*, 1146  
*testudo*, 1146  
*tetragona*, 510  
*tetragramma*, 268  
*Teuthras*, 168, 1611  
*textilis*, 1743  
*textor*, 834  
*textula*, 1148  
*Thais*, 31, 32  
*Thalaina*, 659  
*Thalaria*, 31  
*thalassina*, 745  
*Thaliura*, 4  
*Tharis*, 1752  
*Tharops*, 1404  
*Thaumetopœa*, 1040  
*Theages*, 721  
*Thelebas*, 225  
*Thelebe*, 226  
*Thelebus*, 123, 124  
*Thenopa*, 1195  
*Therapon*, 23  
*Theresa*, 35, 1584  
*Thermophila*, 81, 85, 86  
*Thetis*, 262, 618  
*Thiacidas*, 1027  
*Thibeta*, 1250  
*Thirmida*, 466  
*Thoas*, 262  
*thoracica*, 243, 1626  
*Thosea*, 1068  
*Thrips*, 1513  
*Thulea*, 602  
*Thymara*, 383  
*Thyone*, 552

- Thyrgis*, 316  
*Thyrides*, 3  
*Thyridion*, 55  
*Thyridoptyyx*, 930, 959  
*Thyris*, 3  
*Tiberina*, 422  
*tibialis*, 840, 842  
*Tiburtus*, 244  
*Tifama*, 1077, 1752  
*tigrina*, 599, 1541  
*tigrinus*, 1541  
*Timon*, 1055  
*Tina*, 233  
*Tinea*, 116, 514, 577, 930  
*Tineidae*, 926  
*tineiformis*, 1595, 1599  
*Tinolius*, 621  
*tipulina*, 143  
*Tipulodes*, 232, 1626  
*Tiresia*, 341, 1654  
*Tirrhæa*, 1244  
*Titya*, 1427  
*togatulus*, 577  
*Tolumnensis*, 1621, 1770  
*Tolype*, 1466  
*torrefacta*, 1088  
*torrida*, 161  
*Tortrix*, 575, 1146  
*torva*, 996  
*tosta*, 1017  
*Trabala*, 1785  
*Trajecta*, 1646  
*transalpina*, 83, 86  
*transacta*, 1615  
*transcisa*, 468  
*transiens*, 556, 675, 1156,  
  1589, 1615  
*translata*, 356  
*transpecta*, 513  
*transversa*, 407, 461, 544  
*transversus*, 1567  
*tremula*, 996, 997, 1002  
*Tremulifolia*, 1392  
*trepida*, 996, 1002  
*Triadum*, 257, 1634  
*triangulum*, 1351  
*Tribuna*, 317  
*Trichetra*, 844, 846  
*Trichela*, 1620  
*Trichiura*, 1479  
*trichoptera*, 513  
*Trichosoma*, 589, 763,  
  1692  
*Trichromia*, 538  
*Trichura*, 192  
*tricolor*, 111, 378, 688  
  1488  
*tricolora*, 351, 1711  
*trifascia*, 1439  
*trifenestrata*, 1187, 1196  
*Trifolii*, 81, 82, 1429, 1432  
*Trifolius*, 1432
- trigemmis*, 538  
*Trigonellæ*, 91  
*trigotephras*, 783  
*trigutta*, 145, 545, 557  
*trimacula*, 110, 1014, 1122,  
  1133, 1756  
*trimaculata*, 72  
*Triodia*, 1550  
*tripars*, 1074  
*tripartita*, 706  
*triphænoïdes*, 61, 1589  
*triplaga*, 1084  
*Triptolemus*, 79  
*tripunctaria*, 397, 647  
*triquetrella*, 932, 954  
*trisigna*, 534  
*tristis*, 847, 861, 1521, 1527  
*tristissima*, 142  
*trita*, 394  
*tritophus*, 997  
*trivitta*, 673  
*trivittata*, 322  
*Trochiliidæ*, 2  
*Trochilum*, 3  
*Tropæa*, 1259  
*tropica*, 236  
*Trosis*, 1711  
*truncata*, 476, 1090  
*truncatum*, 1451, 1781  
*Trypanophora*, 3, 434  
*turbida*, 351, 1654  
*turcosa*, 106  
*Turoma*, 1525  
*Tybris*, 645  
*Typhonia*, 927, 1747  
*Typhonioideæ*, 1747  
*Tyrrea*, 1244  
*Tyrrhena*, 1229  
*Tyrrhene*, 169, 1611
- V.
- vacillans*, 413, 685, 873,  
  1617, 1688, 1702  
*Vacuna*, 1216  
*vagans*, 630, 1312, 1369  
*Vaillantina*, 755  
*Valentini*, 74  
*Vanadis*, 76  
*Vaninia*, 1403  
*varia*, 15, 157, 266, 766,  
  840, 868, 890, 1023, 1128,  
  1137, 1278, 1354, 1414  
*varians*, 400, 796, 1153,  
  1663, 1785  
*variegata*, 380, 851, 1097,  
  1661  
*variolaris*, 1746  
*varipes*, 175, 235  
*Vau-niger*, 830  
*Vau-nigra*, 830
- Vau-nigrum*, 830  
*velitaris*, 1004  
*velleda*, 1467, 1552  
*Velutina*, 1394  
*venaria*, 417  
*venosa*, 284, 422, 442, 822,  
  1105, 1319, 1679, 1685,  
  1723  
*venosus*, 1557  
*Ventralis*, 245  
*Venulia*, 55, 1588  
*Venus*, 1572  
*venusta*, 416, 568, 1449,  
  1685, 1765  
*Verago*, 1342  
*Verbasci*, 983  
*Verhuella*, 956  
*Veronicae*, 77, 89  
*Versicolor*, 459, 1385  
*Versicolora*, 1385  
*Versicoloria*, 1385  
*Versicolorus*, 1385  
*Vesparia*, 158, 1604  
*Vesperina*, 403  
*Vespoides*, 155, 1604  
*Vesta*, 1714  
*vestita*, 576, 938  
*vestitella*, 938  
*vetusta*, 506, 772, 786  
*vicaria*, 207, 505  
*viciæ*, 68, 75, 77  
*viciella*, 934, 941, 944  
*vietrix*, 52  
*vidua*, 603, 726, 990, 1135  
*vilis*, 408  
*villica*, 603  
*villicus*, 603  
*villorella*, 936  
*vinosa*, 332, 1653  
*Vinula*, 986, 987  
*violacea*, 1766  
*Virbia*, 470  
*virescens*, 1569  
*virginalis*, 611, 1669  
*virginea*, 97  
*Virginica*, 668  
*Virginicensis*, 1496  
*Virgo*, 600, 608  
*virguncula*, 609, 836  
*virides*, 798, 1083,  
  1303, 1504  
*viridicants*, 1535  
*viridiiclava*, 1144  
*viridifusca*, 882  
*viridiplena*, 1142  
*viridipulverulentus*, 114,  
  1591  
*Vishnou*, 1394  
*Visum*, 1742  
*vitellina*, 503, 838  
*vitis*, 109  
*Vitis-Idææ*, 1481

- vitrea, 644, 1594  
 vittata, 249, 1079, 1155,  
     1440, 1541  
 vittigera, 709  
 vittigerum, 709  
 vittipes, 642  
 vittula, 1778  
 vorax, 1337  
*Vulcanus*, 228  
*Vulnerans*, 1116  
*vulnerata*, 1607  
*vulpina*, 1782  
*vulpinaris*, 636  
*vulpinus*, 1782  
*Vuteria*, 639
- U.
- Ulmi*, 1027  
*ulula*, 1524  
*Umber*, 479  
*umbrata*, 1023  
*umbrifera*, 326  
*uncinula*, 1161  
*uncula*, 1161, 1163  
*undans*, 905, 1458  
*undifera*, 904, 1149  
*undulata*, 1273  
*undulella*, 949  
*undulifera*, 1395, 1676  
*undulosa*, 545, 1196, 1368,  
     1471, 1477  
*unguicula*, 1160  
*unicolor*, 1104, 1414, 1785  
*unicornis*, 1030  
*unifascia*, 774, 1068  
*unita*, 501, 503
- Uraga*, 464  
*Uralensis*, 104  
*Urania*, 4, 1580  
*Uraniidæ*, 4  
*Uroarge*, 1266  
*Urodus*, 1630  
*Uropus*, 1027  
*Urota*, 1330  
*Ursina*, 1352  
*Ursula*, 310, 1649  
*Urticæ*, 665  
*Ustrina*, 161  
*Utethesia*, 565
- W.
- Wahlbergii*, 1245  
*Walkerii*, 664  
*Wallichii*, 1316
- X.
- Xanthocera*, 1603  
*Xanthogastra*, 152  
*Xanthographa*, 105  
*Xanthomelas*, 386  
*Xanthopasa*, 1095  
*Xanthopus*, 1327  
*Xanthorrhina*, 1616  
*Xanthorrhæa*, 838  
*Xeniara*, 1017  
*Xulora*, 1071  
*Xyleutes*, 1510  
*Xylina*, 1035  
*xylophila*, 1630  
*xylotribus*, 1531  
*Xyrena*, 1528
- Y.
- Yuccæ*, 1583
- Z.
- Zacatica*, 1215  
*Zagaris*, 1096  
*Zaida*, 383  
*Zana*, 1700  
*Zanola*, 1173  
*Zantes*, 1601  
*Zatima*, 1695  
*Zatrephe*s, 715  
*Zea*, 1587  
*Zeba*, 998  
*Zehma*, 1670  
*Zelica*, 425, 1169, 1762  
*Zenotea*, 425  
*Zerah*, 611  
*Zerbina*, 344, 1182  
*Zerynthia*, 18  
*Zethus*, 195  
*Zeuzera*, 1528, 1542  
*Zeuzeridæ*, 1509  
*Zeuzerides*, 1509  
*Zeuzeridi*, 1549  
*Ziczac*, 998, 1681  
*Ziczacus*, 999  
*Ziliante*, 1078, 1520, 1769  
*Zoote*, 600  
*Zoraida*, 595  
*Zuleika*, 423, 1252, 1275,  
     1670  
*Zuleima*, 103  
*Zygæna*, 63, 1589  
*Zygæniadæ*, 63  
*Zygænidæ*, 10  
*Zygænides*, 2, 10, 62, 63







