

A LIST OF AMERICAN COCHLIDIAN MOTHS, WITH DESCRIPTIONS OF NEW GENERA AND SPECIES.

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The South American Cochliidiæ (Limacodidæ) are still very imperfectly known and in the various catalogues and lists are much mixed with other families, more particularly with Megalopygidaë, Dalceridaë, and allies. I have been able to examine most of the described species in the British Museum, the collections of Messrs. William Schaus, H. Druce, P. Dognin, and others, and have arranged them as follows. Ten species described by Walker are unknown to me. The types are not in the British Museum, nor have they been recognized in the Hopeian department of the University Museum at Oxford. They are probably lost, and it is doubtful if the species can ever be recognized, since they may belong in any one of a dozen families. They are listed at the end of this paper. I have included the North American species for the sake of completeness.

SYNOPSIS OF THE AMERICAN GENERA.

1. Antennæ of male bipectinate on basal half or less, the tips serrate or simple	2
Antennæ of male bipectinate to tip, or nearly so	13
Antennæ of male unipectinate or uniserrate	29
Antennæ of male simple or biserrate	30
2. Spurs of hind tibiæ obsolete	<i>Epiclea</i>
Terminal spurs of hind tibiæ present	3
3. Fore or hind wings with less than the usual number of veins	4
Veins all present	5
4. Fore wings with the outer margin entire	<i>Monoleuca</i>
Fore wings slightly excavate below apex	<i>Adoneta</i>
5. Fore wings with the costa convex	<i>Metraga</i>
Fore wings with the costa straight	6
6. Palpi short, not reaching beyond the frontal tuft	7
Palpi longer, at least beyond the front or to vertex of head	9

^aThese species were described by Walker from the Fry collection. Sir George Hampson says that the specimens were returned by Walker in such condition that their acceptance was refused and it is not known what became of them.

7. Fork of the discal vein long and closed by a cross vein	8
Fork of the discal vein short and open	<i>Protalina</i>
8. Inner margin of fore wing sinuate	<i>Episibine</i>
Inner margin of fore wing straight	<i>Miresa</i>
9. Inner margin of fore wing sinuate	<i>Sibine</i>
Inner margin of fore wing entire	10
10. Palpi porrect or oblique, not reaching the vertex of head	11
Palpi twice as long as the head, reaching the vertex	<i>Talina</i>
11. Fore wings with vein 10 usually stalked with 7-9; wings with little or no green	<i>Euclea</i>
Fore wings with vein 10 usually from the cell; wings with much green	12
12. Antennae of male bipectinated on the basal half or less	<i>Parasa</i>
Antennae of male bipectinated for two-thirds	<i>Paraclea</i>
13. Palpi long, three times as long as head	^a <i>Vipsania</i>
Palpi shorter, not over twice as long as head	14
14. Palpi reaching to near, or above vertex	15
Palpi not reaching vertex	19
15. Middle spurs of hind tibiae absent	16
Middle spurs of hind tibiae present	17
16. Costa of fore wings convex	<i>Isochates</i>
Costa of fore wings straight	<i>Hepialopsis</i>
17. Palpi reaching above the vertex, the third joint long and slender	<i>Semyra</i>
Palpi reaching near the vertex, third joint short, obtuse	18
18. Antennae of male slender, shortly bipectinate	<i>Euprosterma</i>
Antennae of male stout, broadly bipectinate	<i>Platyprosterma</i>
19. Veins 2 and 3 of fore wings separate	20
Veins 2 and 3 of fore wings stalked	27
20. Middle spurs of hind tibiae absent	<i>Sisyrosea</i>
Middle spurs of hind tibiae present	21
21. Hind wings with vein 6 absent, coincident with 7	<i>Cryptophobeton</i>
Hind wings with the venation normal	22
22. Palpi reaching well beyond the front	23
Palpi not reaching beyond the frontal tuft	25
23. Fore wing with vein 7 from the cell	24
Fore wing with vein 7 stalked	^a <i>Heuretes</i>
24. Palpi obliquely porrect, truncate	<i>Natada</i>
Palpi upturned to near vertex	<i>Euphobeton</i>
25. Head sunken	26
Head subprominent	<i>Alarodia</i>
26. Male with triangular hind wings, dissimilar to the female	<i>Phobeton</i>
Male with rounded hind wings, similar to the female	<i>Leucophobeton</i>
27. Hind tibiae with middle spurs present; palpi to front	<i>Perola</i>
Hind tibiae with the middle spurs absent	28
28. Palpi short, not exceeding the frontal tuft	<i>Paleophobeton</i>
Palpi longer, reaching the middle of the front	<i>Epiperola</i>
29. Antennae with rod-like single pectinations	<i>Tanadema</i>
Antennae uniserrate	<i>Dichromapteryx</i>
Antennae with broad lamellar pectinations	<i>Utania</i>
30. Middle spurs of hind tibiae absent	31
Middle spurs of hind tibiae present	32
31. Palpi reaching above vertex; head sunken	<i>Pseudoripsania</i>
Palpi reaching halfway to vertex	^b <i>Heterogenea</i>

^a Not certainly placed, from lack of material.

^b *Kronau* Reakirt may fall here.

32. Palpi upturned to vertex or less.....	33
Palpi reaching slightly above vertex.....	<i>Lithacodes</i>
33. Form robust; antennæ biserrate.....	<i>Prolimacodes</i>
Form slender; antennæ simple.....	33
34. Palpi not reaching vertex; head sunken.....	<i>Slossonella</i>
Palpi reaching vertex or nearly so; head subprominent.....	35
35. Fore wings acute, but rounded at apex.....	36
Fore wings rather square at apex; costa nearly straight.....	<i>Cochlidion</i>
Fore wings broader and more rounded.....	<i>Packardia</i>
36. Internal margin of fore wings straight.....	" <i>Tortricidia</i>
Internal margin prominent, subsinuate.....	<i>Vipsophobetron</i>

Genus EPISIBINE Dyar.

Episibine DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 234.

EPISIBINE INTENSA, new species.

Male.—Dark glossy brown, the fore wings with a reddish shade toward apex and a blackish one along submedian fold. A large yellow spot on the fold below middle of cell, with a small dot below it on vein 1. Four partly confluent spots subapically—a streak on vein 6 near its base, a spot on 7 at its base, on the stalk of 8, 9, near origin of 7, and a streak on vein 10—the first and last nearer the base than the others. Hind wing with the discal area to margin pellucid, the margin strongly excavate between veins 2 and 7.

Female.—Larger, with the hind wings normal. The spots are large and placed as in the male. Hind wings dark brown.

Expanse.—Male, 28 mm.; female, 45 mm.

Locality.—Three males, two females, St. Jean, Maroni River, French Guiana (W. Schaus).

Type.—Cat. No. 8976, U.S.N.M.

EPISIBINE AUROMACULA Schaus.

Sibine auromacula SCHAUS, Journ. N. Y. Ent. Soc., IV, 1896, p. 56.

Localities.—Venezuela; Brazil.

EPISIBINE SIBINIDES, new species.

Fore wings with the spots large, shaped and colored as in *auromacula* Schaus, the subapical dots more diffused. Hind wings trigonate, with straight outer margin, but the discal area not hyaline, but whitish, crossed by the reddish brown veins. Costal and inner margins dark brown, of the color of the fore wings.

Expanse.—36 mm.

Locality.—One male, Pernambuco [Brazil], from Mr. Schaus's collection.

Type.—Cat. No. 8965, U.S.N.M.

^a See also *Dichromapteryx*.

Genus SIBINE Herrich-Schaeffer.

Sibine HERRICH-SCHAEFFER, Auser. Schmett., I, 1855, p. 7

Sibine DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 233.

SIBINE VIDUA Sepp.

Phalana vidua SEPP, Surin. Vlind., I, 1828, pl. vi.

Nyssia fumosa WALKER, Cat. Brit. Mus., V, 1855, p. 1134.

Sibine vidua DYAR, Ann. N. Y. Acad. Sci., VIII, 1894, p. 216.

Sibine vidua DYAR, Can. Ent., XXIX, 1897, p. 77.

Locality.—Dutch Guiana.

SIBINE NESEA Stoll.

Bombix nesea STOLL, Pap. Exot., IV, 1781, pl. cccv, fig. C

Sibine nesea KIRBY, Cat. Lep. Het., 1892, p. 539.

Locality.—Dutch Guiana.

SIBINE HORRIDA, new species.

Large, the abdomen of the male far exceeding the hind wings. Body above and legs dark red-brown, shading to red. Fore wings dark red-brown, all the disk semitranslucent, of raised scales between the dark brown veins. A slight red apical shade and one below median vein and vein 2, dark, not well contrasted. Two subapical yellow dots, small or obsolete; a tiny dot on submedian fold before origin of vein 2. Hind wings dark red-brown, the space between the discal nervules nearly to margin transparent red-gray, of raised scales.

The female is larger and lacks the raised scales, but has the dark veins of fore wing.

Expanse.—Male, 45 mm.; female, 56 mm.

Localities.—One male in the British Museum from Panama; two males, one female in the collection of M. Paul Dognin from Paramba, Ecuador (1,050 meters, Rosenberg); San Salvador, Central America; 14 males in the Schaus collection from St. Jean and 100 miles up the Maroni River, French Guiana; Geldersland, Dutch Guiana; Casa Br., Brazil; one male in the U. S. National Museum from Palma Sola, Venezuela.

The specimens from Panama and Ecuador I regard as typical. The others differ in being smaller (expanse 38 to 42 mm.), the fore wings more rounded at apex and the raised scales less distinct, especially on the hind wings. In some of the specimens they are scarcely noticeable on the fore wings either, and these much resemble *nesea* Stoll, except for the absence of the silvery line of that species. I distinguish this form as variety *nitens*, new variety.

Type.—Cat. No. 9095, U.S.N.M.

SIBINE AFFINIS Möschler.

Sibine affinis MÖSCHLER, Verh. z. b. Ges. Wien, XXXI, 1883, p. 353.

Locality.—Dutch Guiana. I have not recognized this species.

SIBINE MEGASOMOIDES Walker.

Eupalia megasomoides WALKER, Cat. Brit. Mus., XXXV, 1866, p. 1928.

Sibine megasomoides KIRBY, Cat. Lep. Het., 1892, p. 539.

Locality.—Bogota. I have not recognized this species.

SIBINE TRIMACULA Sepp.

Phalana trimacula SEPP, Surin. Vlind., I, 1848, pl. XLV.

Streblota bourensis BERG, An. Soc. Argent., V, 1878, p. 180.

Sibine fusca MÖSCHLER (not Stoll), Verh. z. b. Ges. Wien, XXVII, 1878, p. 671.

Sibine nescia KIRBY (not Stoll), Cat. Lep. Het., 1892, p. 539.

Sibine fusca DYAR (not Stoll), Ent. News, XI, 1900, p. 7.

Localities.—Dutch Guiana; Argentina.

SIBINE EXTENSA Schaus.

Sibine extensa SCHAUS, Journ. N. Y. Ent. Soc., IV, 1896, p. 55.

Locality.—Mexico.

Mr. Schaus has observed the larva of this species at Jalapa, Mexico, many years ago, and has taken the following from his notebook:

"*Sibine extensa* Schaus, larva. Length 1 inch, very stout, rather square, being flattened dorsally and laterally. Head, which is small and brown with black markings, is concealed under the second segment. This segment is brownish with posteriorly a subdorsal black and white spot. Body pale green. On segment 3 are four little green tubercles, covered with short spines. On segments 4 and 5, only two similar tubercles, but somewhat larger. Segments 11 and 12 the same as 4 and 5. Segment 13 has two large velvety brown tubercles; dorsally and posteriorly to these, two small green, spiny tubercles. Laterally on eleventh is another velvety brown tubercle. Lower down on segments 3 to 13 is a single row of little green spiny tubercles, above which ground color changes somewhat to yellow and there is a fine black lateral line. Prolegs yellowish. Live together in large numbers, and when about to form cocoons, collect together on the bark and after spinning a thin hard web, form underneath it their cocoons, which are round and very hard.

"Feeds on the smuquill chiefly.

"Remain in larval condition all winter, becoming pupae only a few weeks before emerging."

SIBINE BARBARA, new species.

Very dark, the silky shades prominent, a red shade at both apex and over submedian vein; subapical spots confluent in a pale yellow bar, subbasal dot large. Wings of the female with depressed apices; hind wings of the male dark chocolate brown, the disk whitish to margin, the shape somewhat trigonate, recalling *Episibine*, but the outer margin convex.

Expanse.—Male, 35 mm.; female, 47 mm.

Locality.—One male, one female, Rio Janeiro, Brazil (W. Schaus collection).

This species nearly resembles *S. extensa* Schaus, and is, perhaps, a Southern form of it; but the coloration of the hind wings of the male differs.

Type.—Cat. No. 9096, U.S.N.M.

SIBINE RUFESCENS Walker.

Nyssia rufescens WALKER, Cat. Brit. Mus., V, 1855, p. 1138.

Sibine plora SCHAUS, Jour. N. Y. Ent. Soc., IV, 1896, p. 55.

Locality.—Venezuela. The type of *rufescens* is at the University Museum, Oxford, where I have examined it, thanks to the kindness of Prof. E. B. Poulton.

SIBINE APICALIS Dyar.

Sibine apicalis DYAR, Proc. Ent. Soc. Wash., IV, 1900, p. 424.

Locality.—Mexico. This is possibly a form of *stimulea* Clemens. A specimen from Mr. Kearfott is labeled as bred from a larva exactly like *stimulea*, but the adults do not seem the same.

SIBINE STIMULEA Clemens.

Empretia stimulea CLEMENS, Proc. Acad. Nat. Sci. Phil., XI, 1860, p. 158.

Sibine stimulea DYAR, Bull. 52, U. S. Nat. Mus., 1903, p. 354.

Locality.—Atlantic States, North America.

SIBINE PALLESCENS Dognin.

Sibine pallescens DOGNIN, Ann. Ent. Soc. Belg., 1901, p. 309.

Locality.—Venezuela.

SIBINE MODESTA Cramer.

Noctua modesta CRAMER, Pap. Exot., II, 1779, pl. cxv, fig. C.

Nyssia determinata WALKER, Cat. Brit. Mus., XXXII, 1865, p. 479.

Elysia (?) *modesta* KIRBY, Cat. Lep. Het., 1892, p. 219.

Sibine determinata KIRBY, Cat. Lep. Het., 1892, p. 540.

Locality.—Dutch Guiana.

SIBINE FUSCA Stoll.

Bombix fusca STOLL, Pap. Exot., 1781, pl. ccvii, fig. C.

Sibine nescia KIRBY (not Stoll), Cat. Lep. Het., 1892, p. 539.

I have wrongly identified this with *trimacula* Sepp.^a There are four specimens in the British Museum from Demerara which agree with Stoll's figure of *fusca*. Three are females. The male has rather rounded wings, brown, not very dark, the red shades large, diffused, two subapical yellow dots of good size, but no subbasal ones.

Expanse.—30 mm.

Localities.—Dutch and British Guiana.

^aCan. Ent., XXIX, 1897, p. 77.

SIBINE EUCLEIDES, new species.

Wings rounded at apices, not pointed as usual, but the inner margin sinuate. Dark brown, glossy, but without the usual red tint or shading. Two or three subapical yellowish silvery dots in a line; one dot on submedian fold before origin of vein 2. A black bar from base along submedian fold two-thirds the distance to the margin, with a little reddish ochereous scaling just before the dot. Hind wings light straw color, overspread with chocolate brown, not reddish, scarcely lighter in the disk, no raised scales.

Expanse.—32 to 34 mm.

Localities.—One male in the British Museum, Minas Geraes, Brazil; one female in the collection of M. Paul Dognin, Paraguay (Heyne), and one in the collection of Mr. E. D. Jones from Brazil.

Genus PARASA Moore.

Parasa MOORE, Cat. Lep. East India Co., 1, 1859, p. 413.

Parasa DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 234.

Parasa DYAR, Psyche, VIII, 1898, p. 273.

PARASA VIRIDIPLENA Walker.

Neara (?) *viridiplena* WALKER, Cat. Brit. Mus., V, 1855, p. 1142.

Parasa viridiplena KIRBY, Cat. Lep. Het., 1892, p. 546.

Locality.—Brazil.

PARASA LARANDA Druce.

Parasa laranda DRUCE, Biol. Cent.-Am., Lep. Het., I, 1887, p. 215.

Locality.—Guatemala.

PARASA WELLESCA Dyar.

Parasa prasina DYAR (not Alpheraky), Psyche, VIII, 1898, p. 273.

Parasa wellesca DYAR, Can. Ent., XXXII, 1900, p. 347.

Locality.—Mexico.

Named in honor of Miss Wellesca Pollock of Washington, District of Columbia.

PARASA LAONOME Druce.

Parasa laonome DRUCE, Biol. Cent.-Am., Lep. Het., I, 1887, p. 215.

Locality.—Panama.

PARASA IMITATA Druce.

Parasa imitata DRUCE, Biol. Cent.-Am., Lep. Het., I, 1887, p. 215.

Locality.—Central America.

PARASA HERBINA Schaus.

Euclea herbina SCHAUS, Journ. N. Y. Ent. Soc., VIII, 1901, p. 230.

Locality.—Espiritu Santo, Brazil.

PARASA INDETERMINA Boisduval.

Limacodes indetermina BOISDUVAL, Cuvier An. King., 1832, pl. c111, fig. 1.

Euclea indetermina DYAR, Bull. 52, U. S. Nat. Mus., 1903, p. 355.

Locality.—Southern Atlantic States, North America.

PARASA CHLORIS Herrich-Schaeffer.

Neura chloris HERRICH-SCHAEFFER, Ausset. Schmett., 1, 1854, fig. 176.

Parasa chloris DYAR, Journ. N. Y. Ent. Soc., V, 1897, p. 61.

Locality.—Southern Atlantic States, North America.

PARASA MINIMA Schaus.

Parasa minima SCHAUS, Proc. Zool. Soc. Lond., 1892, p. 322.

Parasa minima DRUCE, Biol. Cent.-Am., Lep. Het., II, 1898, p. 442.

Locality.—Mexico.

PARASA PRETIOSA Strecker.

Parasa pretiosa STRECKER, Lep. Rhop. and Het., Suppl., II, 1899, p. 4.

Locality.—Brazil. This is probably an earlier name for *Paraclea dolita* Schaus.

PARASA CEBRENIS Schaus.

Trabala cebrenis SCHAUS, Proc. Zool. Soc. Lond., 1892, p. 323.

Sibine lysia DRUCE, Biol. Cent.-Am., Lep. Het., II, 1897, p. 439.

Euclea cebrenis DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 234.

Locality.—Mexico.

PARASA VIRIDOGRISEA Dyar.

Euclea viridogrisea DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 234.

Locality.—Mexico.

PARASA SCHAUSI, new species.

Female.—Nearly allied to *viridogrisea* Dyar, but the green band is wider and sensibly more even and regular; it does not reach so near to the base and its brown edges are more diffused.

Male.—Small, fore wings pointed trigonate, hind wings elongate. Thorax green with a brown tip on the side of the patagia, but the wings without any green color, blackish brown at base and outer margin, median band chocolate brown, not strongly contrasted.

Localities.—One female, St. Laurent, Maroni River, French Guiana; two males, St. Jean, Maroni River, and Cayenne, French Guiana (W. Schaus).

Type.—Cat. No. 8977, U.S.N.M.

Genus **EUCLEA** Hübner.

Euclea HÜBNER, Verz. bek. Schmett., 1822, p. 149.

Euclea DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 234.

EUCLEA DICOLON Sepp.

Phalena dicolon SEPP, Surin. Vlind., II, 1848, p. 83.

Sibine dicolon KIRBY, Cat. Lep. Het., 1892, p. 539.

Euclea dicolon DYAR, Ann. N. Y. Acad. Sci., VIII, 1894, p. 216.

Locality.—Dutch Guiana. I have not recognized this species.

EUCLEA ÆMILIA Stoll.

Bombyx æmia STOLL, Pap. Exot., 1782, pl. cccxcvii, fig. P.

Semyra æmia KIRBY, Cat. Lep. Het., 1892, p. 534.

Locality.—Dutch Guiana. I have not recognized this species.

EUCLEA CIPPUS Cramer.

Bombyx cippus CRAMER, Pap. Exot., I, 1775, pl. cii, fig. E.

Euclea cippus KIRBY, Cat. Lep. Het., 1892, p. 547.

Localities.—Jalapa, Mexico; Chiriqui, Panama; St. Jean and Cayenne, French Guiana; Paramaribo, Dutch Guiana; Trinidad, British West Indies; Peru.

EUCLEA CIPIOR, new species.

Very nearly allied to *cippus* Cramer, but larger, the hind wings yellowish tinted, not uniform brown, the abdomen pale on the sides, dark on the dorsum. The wings are as in *cippus*, the basal green spot with its outer white line divided.

Expanse.—33 mm.

Locality.—One male, Santo Domingo, Carabaya, Peru, sent to Mr. Schaus as "*cippus*" by M. Paul Dognin, who presumably has others.

Type.—Cat. No. 8466, U.S.N.M.

EUCLEA DELPHINII Boisduval.

Limacodes delphinii BOISDUVAL, Cuvier An. King., 1832, pl. cii, fig. 6.

Euclea delphinii DYAR, Journ. N. Y. Ent. Soc., V, 1897, p. 57.

Parasa incisa HARVEY, Can. Ent., VIII, 1876, p. 5.

Locality.—Atlantic States, North America. The type of *incisa* Harvey is in the British Museum and proves to be *pænulata* with pale hind wings, not the form heretofore identified as *incisa*.

EUCLEA NANINA Dyar.

Euclea nana DYAR (not Herrich-Schaeffer), Ent. News, II, 1891, p. 61.

Euclea nanina DYAR, Journ. N. Y. Ent. Soc., VII, 1899, p. 247.

Locality.—Florida, North America.

EUCLEA MIRA, new name.

Parasa incisa NEUMÖGGEN and DYAR (not Harvey), Journ. N. Y. Ent. Soc., II, 1894, p. 68.

Locality.—Texas, North America.

EUCLEA NORBA Druce.

Sibine norba DRUCE, Biol. Cent.-Am., Lep. Het., I, 1887, p. 211.

Locality.—Panama.

EUCLEA COPAC Schaus.

Neomiresa copac SCHAUS, Proc. Zool. Soc. Lond., 1892, p. 324.

Euclea copac DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 235.

Locality.—Peru.

EUCLEA PERMODESTA, new species.

Entirely dark brown, the fore wings a little blackish shaded on internal margin, without markings. The veins are a little darker relieved, the abdomen and hind wings lighter chocolate brown.

Expanse.—28 mm.

Localities.—Three males, St. Jean, Maroni River, French Guiana; Geldersland, Surinam River, Dutch Guiana (W. Schaus).

Type.—Cat. No. 8978, U.S.N.M.

EUCLEA PALLICOLOR, new species.

Light fawn color, the hind wings brownish tinted. A submarginal dusky band from apex to inner margin; a subapical curved white bar, preceded by a brown patch; a few white scales above middle of internal margin preceded by brown; a blackish basal dash below median vein at base.

Expanse.—24 mm.

Locality.—One male, St. Laurent, Maroni River, French Guiana (W. Schaus).

Type.—Cat. No. 8979, U.S.N.M.

EUCLEA CUSPOSTRIGA, new species.

Dark brown; fore wings thickly gray-brown, irrorate over the cell, discal venules, and vein 1, leaving a large dark discal dot and spot beyond cell. Apically and below vein 2 a reddish shade. A small white subapical streak; a white cusp in the submedian space below the cell between the reddish patch and the basal brown area.

Expanse.—18 mm.

Localities.—Eleven males, Cayenne and St. Laurent, French Guiana; 60 and 100 miles up the Maroni River, French Guiana; Geldersland, Surinam River, Dutch Guiana (W. Schaus). One specimen has been deposited in the British Museum.

Type.—Cat. No. 8980, U.S.N.M.

EUCLEA DIVERSA Druce.

Semyra diversa DRUCE, Biol. Cent.-Am., Lep. Het., I, 1887, p. 220.

Euclea diversa DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 235.

Locality.—Central America.

EUCLEA BARANDA Schaus.

Euclea baranda SCHAUS, Journ. N. Y. Ent. Soc., VIII, 1901, p. 230.

Locality.—Colombia.

EUCLEA DOLLIANA, new species.

In color and markings resembling *Adoneta spinuloides* Herrich-Schaeffer, but much larger, and differing generically in having 12 veins in fore wings and no incision in the outer margin. Reddish chocolate-brown. An erect, wavy, silvery line on inner third of inner margin, slightly oblique, thickened, irregularly angled, finely produced along vein 2; thence obsolete over the discal venules, but reappears above vein 5 to costa as a curved subapical silvery streak, parallel to outer margin. The basal part of the line is edged with blackish within, and there is a dark suffusion about its angle on vein 2. An elongate-oval, black, discal mark, absent in one specimen. Legs densely hairy, dark chocolate-brown.

Expanse.—26 to 30 mm.

Locality.—Two females, collected by Mr. C. Schaeffer in the Huachuca Mountains, Arizona (Palmerlee, Cochise County).

Named in honor of Mr. Jacob Doll, of Brooklyn, N. Y., curator in the museum of the Brooklyn Institute of Arts and Sciences.

EUCLEA PLUGMA Sepp.

Phalena plugma SEPP, Surin. Vlind., 1848, pl. LXXXIV.

Sibine plugma KIRBY, Cat. Lep. Het., 1892, p. 540.

Euclea plugma DYAR, Ann. N. Y. Acad. Sci., VIII, 1894, p. 215.

Locality.—Dutch Guiana. I have not recognized this species.

EUCLEA BIDISCALIS, new species.

Fore wings deep glossy brown, the cell contrastingly subhyaline, with some raised scales. A row of minute silvery white dots on the veins, from the apex to vein 2, then along median vein and to margin at inner third, edged without with patches of more shining brown, irregular and silky. Hind wings dark brown; a subhyaline patch in end of cell and over three interspaces beyond, halfway to the margin. Body above dark brown, below paler.

Expanse.—20 mm.

Locality.—One male, Panama, in the British Museum.

Genus PARACLEA, new genus.

Nearly allied to *Euclea*, but the pectinations of the male antennæ reach two-thirds the length of the member, whereas in *Euclea* they never exceed one-half; palpi obliquely ascending, longer and more detached than in *Euclea*; fore wings with veins 7 to 10 long stalked,

8 and 9 forking just before the margin. Hind legs with end spurs only. Wings broad, the costa convex.

Type.—*Paraclea dolita* Schaus.

PARACLEA DOLITA Schaus.

Euclea dolita Schaus, Journ. N. Y. Ent. Soc., VIII, 1901, p. 230.

Locality.—Parana, Brazil. See note under *Parasa pretiosa* Strecker.

Genus **METRAGA** Walker.

Metraga WALKER, Cat. Brit. Mus., V, 1855, p. 1129.

Metraga DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 235.

METRAGA PERPLEXA Walker.

Metraga perplexa WALKER, Cat. Brit. Mus., V, 1855, p. 1129.

Neomiresa rufa BUTLER, Trans. Ent. Soc. London, 1878, p. 74.

Euclea chiriquensis SCHAUS, Journ. N. Y. Ent. Soc., VIII, 1901, p. 231.

Localities.—Venezuela; Brazil; Panama.

METRAGA ZYGIA Druce.

Euclea zygia DRUCE, Biol. Cent.-Am., Lep. Het., I, 1887, p. 216.

Locality.—Guatemala.

METRAGA DETERMINATA Druce.

Euclea determinata DRUCE, Biol. Cent.-Am., Lep. Het., I, 1887, p. 216.

Locality.—Guatemala.

METRAGA RUBICOLOR, new species.

Head, thorax, and fore wings red-brown, rather of a crimson tint, without markings. Hind wings reddish brown.

Expanse.—17 mm.

Locality.—One male, Nicaragua (U. S. Nat. Mus., acc. No. 28181), the specimen in poor condition.

Type.—Cat. No. 8467, U.S.N.M.

Genus **MONOLEUCA** Grote and Robinson.

Monoleuca GROTE and ROBINSON, Trans. Am. Ent. Soc., II, 1869, p. 187.

MONOLEUCA SUBDENTOSA Dyar.

Monoleuca subdentosa DYAR, Trans. Am. Ent. Soc., XVIII, 1891, p. 156.

Locality.—Florida, North America.

MONOLEUCA SEMIFASCIA Walker.

Limacodes semifascia WALKER, Cat. Brit. Mus., V, 1855, p. 1151.

Locality.—Southern Atlantic States, North America.

MONOLEUCA SULPHUREA Grote.

Monoleuca sulphurea GROTE, No. Amer. Ent., 1880, p. 60.

Locality.—Florida, North America.

MONOLEUCA OBLIQUA, Hy. Edwards.

Monoleuca obliqua, Hy. EDWARDS, Ent. Amer., II, 1886, p. 10.

Locality.—Florida, North America.

Genus **ADONETA** Clemens.

Adoneta CLEMENS, Proc. Acad. Nat. Sci. Phil., XII, 1860, p. 158.

ADONETA SPINULOIDES Herrich-Schaeffer.

Limacodes spinuloides HERRICH-SCHAEFFER, Ausser. Schmett., I, 1854, p. 187.

Cyclopteryx leucostigma PACKARD, Proc. Ent. Soc. Phil., III, 1864, p. 345.

Euclea ruptilinea WALKER, Cat. Brit. Mus., XXXII, 1865, p. 485.

Adoneta spinuloides DYAR, Bull. 52, U. S. Nat. Mus., 1903, p. 355.

Localities.—Atlantic States to Texas, North America.

ADONETA BICAUDATA Dyar.

Adoneta bicaudata DYAR, Journ. N. Y. Ent. Soc., XII, 1904, p. 43.

Locality.—Southern Atlantic States, North America.

ADONETA PYGMÆA Grote and Robinson.

Adoneta pygmaea GROTE and ROBINSON, Trans. Am. Ent. Soc., II, 1868, p. 189.

Locality.—Texas, North America.

Genus **PROTALIMA** Dyar.

Protalima DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 236.

PROTALIMA SULLA Schaus.

Nyssia sulla, SCHAU, Proc. Zool. Soc. Lond., 1892, p. 324.

Locality.—Brazil.

Genus **TALIMA** Walker.

Talima WALKER, Cat. Brit. Mus., V, 1855, p. 1120.

TALIMA POSTICA Walker.

Talima postica WALKER, Cat. Brit. Mus., V, 1855, p. 1121.

Localities.—Venezuela; French Guiana.

TALIMA LATESCENS Butler.

Talima latescens BUTLER, Trans. Ent. Soc. Lond., 1878, p. 75.

Locality.—Brazil.

TALIMA STRAMINEA Schaus.

Semyra straminea SCHAU, Proc. Zool. Soc. Lond., 1892, p. 324.

Idonauton straminea DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 236.

Localities.—Mexico; French Guiana.

Genus **MIRESA** Walker.

Miresa WALKER, Cat. Brit. Mus., V, 1855, p. 1123.

MIRESA CLARISSA Stoll.

Phalena clarissa STOLL, Pap. Exot., Suppl., 1790, pl. xxxiv, fig. 3.

Streblota clarissa HÜBNER, Verz. bek. Schmett., 1816, p. 193.

Nyssia argentata WALKER, Cat. Brit. Mus., V, 1855, p. 1134.

Miresa argentata DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 235.

Localities.—Brazil; Dutch Guiana.

MIRESA VENOSA, new species.

Structurally allied to *argentea*. Body yellow, palpi and legs brown, patagia brownish tinted. Fore wings red-brown at base, thinly and erectly scaled beyond the cell and above vein 2, more grayish, the veins lined with black. A blackish discal dot. A yellow patch on submedian fold below middle of cell and another at tornus. Two faintly indicated blackish lines outwardly, formed by intensification of the venular streaks, below the cell passing between the two yellow spots and becoming brownish. Between them some of the raised scales have a silvery sheen. Hind wings pale yellow.

Expanse.—24 mm.

Locality.—Two males, San Salvador, Central America, in the collection of M. Paul Dognin.

MIRESA ARGENTEA Druce.

Eupalia argentea DRUCE, Biol. Cent.-Am., Lep. Het., I, 1887, p. 218.

Miresa argentea DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 235.

Localities.—Mexico; Central America.

Genus VIPSANIA Druce.

Vipsania DRUCE, Biol. Cent.-Am., Lep. Het., I, 1887, p. 217.

Vipsania DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 236.

VIPSANIA ANTICLEA Druce.

Vipsania anticlea DRUCE, Biol. Cent.-Am., Lep. Het., I, 1887, p. 217.

Localities.—Mexico; Central America. Only females are known.

VIPSANIA UNICOLOR, new species.

Entirely dark brown with a sericeous reflection. The fore wings have the scales arranged in wavy strigæ, but are without markings.

Expanse.—36 mm.

Locality.—One female, Palma Sola, Venezuela, in the collection of the U. S. National Museum. This is not strictly a *Vipsania*, as the costa is convex and the hind tibiæ have short end spurs only; but I prefer to leave it here till the male is discovered.

Type.—Cat. No. 8981, U.S.N.M.

Genus EPICLEA, new genus.

Male antennæ bipectinated, the last dozen joints simple. Palpi slender, curved, nearly porrect, one-and-a-half times as long as head;

hind tibiae with the spurs obsolete. Wings broad, veins 7 to 9 stalked, 10 from the base of the stalk, discal vein long-forked, and open, costa convex.

Type.—*Epiclea elæa* Druce.

EPICLEA ELÆA Druce.

Perola elæa DRUCE, Biol. Cent.-Am., Lep. Het., I, 1887, p. 23.

Locality.—Panama. This identification is based on an examination of Druce's type. In both the Druce collection and the British Museum I found two species mixed under this label, and it is the other species, not the type, which is figured in the Biologia. Compare *Euposterna elæasa* Dyar.

Genus SEMYRA Walker.

Semyra WALKER, Cat. Brit. Mus., V, 1855, p. 1130.

Semyra DYAR, Jour. N. Y. Ent. Soc., VI, 1898, p. 237.

SEMYRA BELLA Herrich-Schaeffer.

Limacodes bella HERRICH-SCHAEFFER, Ausser. Schmett., I, 1854, fig. 181.

Semyra coarctata WALKER, Cat. Brit. Mus., V, 1855, p. 1131.

Semyra finita WALKER, Cat. Brit. Mus., V, 1855, p. 1131.

Eulimacodes möschleri SCHAUS, Proc. Zool. Soc., Lond., 1892, p. 324.

Localities.—Brazil; Central America; Mexico.

The type of *finita* Walker is in the British Museum and it differs from *coarctata* Walker in having the terminal space rather contrastingly pale and the basal red marks obsolete. I do not think it a distinct species.

SEMYRA IRENA, new species.

Much like *bella* Herrich-Schaeffer, but much larger. The marks are the same, except that the red color beyond the basal broken silver streak is absent.

Expanse.—Male, 30 mm.; female, 40 mm. (*bella* expands, male, 20 mm.; female, 27 mm.).

Localities.—Two males, one female, Rockstone, Essequibo River, and Omai, British Guiana; Petropolis, Brazil (W. Schaus).

Type.—Cat. No. 9031. U.S.N.M.

Determined by Mr. Schaus as *distincta* Möschler, but he has since collected specimens agreeing better with Möschler's characterization and from near his type locality.

Named in honor of Miss Louise Irene Hoff, of New York City.

SEMYRA DISTINCTA Möschler.

Eulimacodes distincta MÖSCHLER, Verh. zool.-bot. Ges. Wien, XXVII, 1878, p. 672.

Locality.—Dutch Guiana.

SEMYRA CARDIA Schaus.

Semyra cardia SCHAUS, Proc. Zool. Soc. Lond., 1894, p. 236.

Locality.—Brazil.

SEMYRA PAULA, new species.

Nearly allied to *cardia*, but the hind wings darker, usually solidly chestnut brown, rarely whitish, but distinctly washed with brown. The silvery subbasal streak is less angled than in *cardia*, the upper part being a curved arc, not angled, the lower part, although angled, less deeply so than in *cardia* and smaller. The outer digitate marks are much the same, but there is no orange dash. The subterminal line is less approximated to the margin below and is not dentate; it is linear, pale, bent out nearly to margin about vein 7 and incurved below vein 2. The eyes are larger than in *cardia* and the head a little less sunken.

Localities.—Five males in the British Museum, São Paulo, Brazil (E. D. Jones); Sapucay, Paraguay (W. Foster); one male in the University Museum at Oxford, small and very dark; one male in Mr. Schaus's collection from Peru and ten in Mr. Jones's from Brazil.

Type.—Cat. No. 8982, U.S.N.M.

SEMYRA ZINIE, new species.

Dark brown; basal half of fore wings of this color, containing a subbasal silvery mark, large, lobed above and centrally, attenuate below. A narrow violaceous white line edges this color, starting on inner margin at silvery mark, curving along near the margin to near middle of wing, then upright to vein 7; here it runs outwardly along vein 6, is sharply angled, and retreats to costa, inclosing a slaty gray area. A brown apical patch and one between veins 5 and 6. Outer area light brown with dark veins.

Expanse.—28 mm.

Locality.—One female, Sapucay, Paraguay (W. T. Foster).

Type.—Cat. No. 9032, U.S.N.M.

Named in honor of Miss Zinie Kidder, of Berkeley, California.

Genus HEPIALOPSIS, new genus.

Male antennæ bipectinated to the tip, slender, with rather long pectinations. Palpi very furry in front, upturned nearly to vertex, the third joint conic, short. Hind tibiæ with long end spurs only. Costa straight, veins 7 to 9 stalked, 10 from the apex of the cell, cross vein scarcely angled, the discal fork open. Hind wings with veins 3 and 4 from the end of the cell, 5 retracted, 6 and 7 stalked, 8 anastomosing with cell near base. Fore wings not trigonate as usual, the costa and inner margin nearly parallel.

Type.—*Hepialopsis agemytha* Druce.

HEPIALOPSIS AGEMYTHA Druce.

Semyra agemytha DRUCE, Am. Mag. Nat. Hist. (6), V, 1890, p. 218.

Locality.—Mexico.

Genus SISYROSEA Grote.

Sisyrosea GROTE, Can. Ent., VIII, 1876, p. 112.

SISYROSEA DIANA Druce.

Semyra diana DRUCE, Biol. Cent.-Am., Lep. Het., I, 1887, p. 220.

Locality.—Panama.

SISYROSEA TEXTULA Herrich-Schaeffer.

Limacodes textula HERRICH-SCHAEFFER, Ausser. Schmett., 1, 1854, fig. 184.

Sisyrosea textula DYAR, Journ. N. Y. Ent. Soc., IV, 1896, p. 185.

Locality.—Atlantic States, North America.

SISYROSEA OBSCURA, new species.

Allied to *textula* Herrich-Schaeffer, but uniformly brownish without sericeous streaks or variations of color, and all irrorate with black scales. Head, thorax, and abdomen dark brown without ochereous shades.

Locality.—One male, St. Jean, Maroni River, French Guiana (W. Schaus).

Type.—Cat. No. 8983, U.S.N.M.

SISYROSEA SCHAEFFERANA, new species.

Male.—Brownish ochereous to light ochereous brown, unicolorous, the fringe darker tipped on the hind wing. Fore wings with numerous, wavy, raised strigæ, shining on the convex parts, darkened in the concave parts, with a diffuse, brownish, faint discal bar.

Female.—Variable in color as the male, but more flesh colored in tint. The strigæ are much less distinct, though visible in a strong light; there is no discal mark; there are a few scattered blackish scales on fore wing.

Expanse.—Male, 28 mm.; female, 30 mm.

Hind tibiæ in both sexes swollen, flattened, without middle spurs.

Locality.—Five males, three females; collected by Mr. C. Schaeffer in the Huachuca Mountains, Arizona (Palmerlee, Cochise County).

The types are in the collection of the museum of the Brooklyn Institute of Arts and Sciences.

Named in honor of Mr. C. Schaeffer, of Brooklyn, New York.

SISYROSEA (?) PHARA Druce.

Semyra phara DRUCE, Am. Mag. Nat. Hist. (7), V, 1900, p. 513.

Localities.—Mexico; French Guiana; Dutch Guiana.

Only females are known. Mr. Druce's type is a female. There is one in the British Museum from the Godman-Salvin collection and Mr. Schaus took five in Guiana. The generic position is uncertain till the male is found.

SISYROSEA (?) PARVA, new species.

Closely allied to *phara* Druce, but smaller, paler, and more yellowish, the head more prominent. Fore wings yellowish ochereous, irrorate with brown, with a narrow outer line parallel to the margin and traces of a discal mark. Hind wings more brownish.

Expanse.—18 mm.

Locality.—One female, Aroa, Venezuela (W. Schaus).

Type.—Cat. No. 8984, U.S.N.M.

SISYROSEA (?) FLEXILINEA, new species.

Allied to *phara* Druce, but larger, darker, the outer line flexuous. Dark reddish brown; an outer line, slender, finely waved, bent inward below vein 2, else arcuate and parallel to the margin. A dark apical shade resting on the line; a dark cloud about origin of veins 2 and 3. Thorax dark purplish; hind wings darker than fore wings.

Expanse.—25 to 27 mm.

Locality.—Two females, St. Jean, Maroni River, French Guiana (W. Schaus).

Type.—Cat. No. 8985, U.S.N.M.

These three species, *phara*, *parva*, and *flexilinea* are not properly referred to *Sisyrosea*, as the costa is not straight as in that genus; but they can not be correctly referred without males. The hind tibiae have no middle spurs.

SISYROSEA (?) ASSIMILIS, new species.

Agreeing with the preceding structurally, except that the palpi are very short and frail, scarcely reaching the front. It probably deserves a new generic name, but must await the discovery of the male.

Coloration of *S. phara* Druce, but the fore wings lighter, the line narrower and the outer margin tinted darker in purplish. Hind wings blackish brown with pale fringes.

Expanse.—21 mm.

Locality.—One female, Jalapa, Mexico (W. Schaus).

Type.—Cat. No. 8986, U.S.N.M.

Genus EUPROSTERNA, new genus.

With the characters of *Natada*, but the palpi long and upturned about to vertex of head. The male antennæ are bipectinated to the tip, slender, moderate, with short pectinations.

Type.—*Euprosterna aroënsis* Schaus.

EUPROSTERNA URBA Druce.

Euclea urba DRUCE, Biol. Cent.-Am., Lep. Het., I, 1887, p. 216.

Locality.—Costa Rica.

EUPROSTERNA AROËNSIS Schaus.

Sisyrosea aroënsis SCHAUS, Journ. N. Y. Ent. Soc., VIII, 1901, p. 231.

Locality.—Venezuela.

EUPROSTERNA SAPUCAYA, new species.

Brown, silky, irrorate; base of fore wing brown, with an ochereous tint, especially below median vein at base; outer margin more lilaceous shining. A broad diffused dusky band from the angle of wing near base on inner margin, directed toward apex, but obsolete after the cell. Hind wing pale whitish brown. A small species, the wings rather elongate, not trigonate.

Expanse.—18 mm.

Locality.—One male, Sapucay, Paraguay (W. Foster), in the British Museum.

EUPROSTERNA ELÆASA, new species.

Brown, as in *Sisyrosea*, uniform, a pale outer line from before apex to middle of inner margin, edged within with darker and not quite attaining the costa.

Localities.—Eleven males, St. Jean, Maroni River, French Guiana (W. Schaus); Trinidad, British West Indies (Urich); Demarara, British Guiana (collection W. Schaus); one male in the British Museum, Teapa, Tabasco, Mexico (Godman-Salvin collection).

Type.—Cat. No. 8987, U.S.N.M.

This is the species figured in the *Biologia Centrali-Americana* as *Perola dæa* Druce, and it is mixed under this name in Mr. Druce's collection and in the British Museum; but the type which I have examined through Mr. Druce's kindness belongs to another genus, and will be found under the name *Epiclea dæa*.

EUPROSTERNA PERNAMBUCONIS, new species.

Reddish brown; a white line on fore wings from outer fourth of costa to outer third of inner margin, edged with black within; a fainter line from costa before apex, approaching margin below and ending in a faint curve on tornus, edged with brown within; fringe dark. Hind wing blackish.

Expanse, 15 mm.

Locality.—Two males, Pernambuco, Brazil, January 29, 1883 (A. Koebele), in the collection of the U. S. National Museum.

Type.—Cat. No. 8988, U.S.N.M.

EUPROSTERNA LACIPEA Druce.

Perola lacipea DRUCE, Ann. Mag. Nat. Hist. (6), V, 1890, p. 218.

Locality.—Mexico.

Genus PLATYPROSTERNA, new genus.

With the characters of *Natada* as modified in the description of *Euprosterma*, but the male antennæ large and stout, with long pectinations, reaching to the tip.

Type.—*Platyprosterna elæetta* Dyar.

PLATYPROSTERNA ELÆETTA, new species.

The description of *Euprosterma elæasa* will apply to this also. The moth is larger, broader, and squarer winged and the line is more basally placed, running from the outer third of costa to before middle of inner margin.

Localities.—Two males, São Paulo, Brazil (E. D. Jones); Rio Janeiro, Brazil (W. Schaus); one in the British Museum from São Paulo, and several in Mr. E. D. Jones's collection.

Type.—Cat. No. 8989, U.S.N.M.

PLATYPROSTERNA ANTIQUA, new species.

Ocherous brown on basal half of fore wings; a narrow brown line from outer fourth of costa to middle of inner margin with a narrow, whitish outer border. Beyond the line, pale creamy brownish, a slender dark line from costa, half way between inception of first line and apex to anal angle, gradually approaching the termen, and at the angle very faintly continued along inner margin to first line. Hind wings testaceous whitish, the fringe darker, creamy. Below all a little more brownish; no marks.

Expanse.—18 mm.

Localities.—One male, Burchell collection in the Hopeian Museum at Oxford, taken November 5, 1828, in Brazil; two specimens in the collection of Mr. E. D. Jones, Castro, Parana, Brazil.

PLATYPROSTERNA CERES Druce.

Perola ceres DRUCE, Biol. Cent. Am., Lep. Het., I, 1887, p. 219.

Localities.—Mexico; Guatemala.

Genus NATADA Walker.

Natada WALKER, Cat. Brit. Mus., V, 1855, p. 1108.

NATADA QUADRATA Walker.

Semyra quadrata WALKER, Cat. Brit. Mus., V, 1855, p. 1132.

Natada quadrata KIRBY, Cat. Lep. Het., 1892, p. 541.

Locality.—Venezuela.

The spurs of the hind legs are reduced, but present. I observed in Walker's type specimen one stout apical spur and two very small middle spurs. The species resembles *Sisypsoea*, but has a dark diffused half-band on inner margin.

NATADA SARDITES Druce.

Perola sardites DRUCE, Ann. Mag. Nat. Hist. (7), V, 1900, p. 512.

Locality.—Colombia.

There are three males in Mr. Druce's collection. The spurs of the hind tibiae are partly aborted, the upper spurs being one minute, the other dwarfed. The species is therefore transitional to *Sisyrosea*.

NATADA DEBA, new species.

Allied to *sardites* Druce, but the middle spurs of hind tibiae not aborted. Dark brown, irrorate, a cupreous shade at anal angle. Discal dot, an oblique band from below it to middle of inner margin and a subterminal band blackish, the latter distinct only centrally, not reaching costa or margin. Hind wings blackish brown.

Expanse.—24 mm.

Locality.—Two males, St. Jean, Maroni River, French Guiana (W. Schaus).

Type.—Cat. No. 8990, U.S.N.M.

NATADA DEBELLA, new species.

Similar to *deba*, but lighter, sericeous creamy brown, of the color of *Sisyrosea textula*, but not mottled. A black discal dot and a small patch at origin of veins 3, 4. Antennae testaceous.

Expanse.—25 mm.

Locality.—Five males, St. Jean, Maroni River, French Guiana (W. Schaus).

Type.—Cat. No. 8991, U.S.N.M.

NATADA DOGNINI, new species.

Moderately sized, silky creamy brown, like *Sisyrosea*, head and base of fore wing reddish. Fore wing sparsely irrorate with black scales, the apex and outer margin purplish, fringe more brownish. A diffuse blackish patch on veins 3 to 5 shortly beyond their origin. Hind wings light brown.

Expanse.—25 mm.

Locality.—One male, Micay, Colombia (August, 1896), in the collection of M. Paul Dognin.

NATADA LUCENS Walker.

Amydona lucens WALKER, Cat. Brit. Mus., V, 1855, p. 1111.

Sisyrosea lucens DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 238.

Locality.—Brazil.

NATADA SIMOIS Stoll.

Bombyx simois STOLL, Pap. Exot., IV, 1780, pl. cccviii, fig. F.

Romosa abscissa WALKER, Cat. Brit. Mus., XXXII, 1865, p. 473.

Bombycocera senilis FELDER, Reise Novara, Lep., IV, 1874, pl. lxxxiii, fig. 13.

Localities.—Dutch Guiana; Brazil; Callao, Peru (Mrs. M. J. Pusey).

NATADA BERGII, new name.

Rhinaxina quadrata BERG, Ann. Soc. Arg., XIII, 1882, p. 259.

Localities.—Dutch Guiana; Argentina.

NATADA INCRESCENS, new species.

Very similar to *bergii*, and possibly only a large specimen of that species. It is much larger, expanse 40 mm., with the same markings, but the base of the wing even darker, obscuring the inner line, and there is a patch of light-ocher scales below the cell at the origin of vein 2.

Locality.—One male, Geldersland, Surinam River, Dutch Guiana (W. Schaus).

Type.—Cat. No. 8992, U.S.N.M.

NATADA SUFFICIENS, new species.

Allied to *bergii* and *increscens*. Brownish ochraceous, head, center of thorax, and abdomen tinged with dark red. A white point at base of antennæ; palpi black-brown. Wings ochraceous creamy brown with sparse black irrorations, especially along costa and over median nervules. A dusky discal dot; a brownish shading over the median venules. Hind wing with a dark-brown shade parallel to and before inner margin.

Expanse.—48 mm.

Locality.—One male, St. Jean, Maroni River, French Guiana (W. Schaus).

Type.—Cat. No. 8993, U.S.N.M.

NATADA INCANDESCENS, new species.

Head, thorax, and base of abdomen bright red, the rest of the insect silky brown. Fore wings variegated in dark brown and lilaceous, in transverse bars, the brown forming subbasal, median, and submarginal broad, diffuse bands and a discal line.

Expanse.—30 mm.

Localities.—One male, St. Jean, Maroni River, French Guiana (W. Schaus); Micay, Colombia (collection of M. Paul Dognin).

Type.—Cat. No. 8994, U.S.N.M.

NATADA MYCALIA Stoll.

Bombyx mycalia STOLL, Pap. Exot., Suppl., 1790, pl. xxxv, fig. 4

Natada (?) *mycalia* KIRBY, Cat. Lep. Het., 1892, p. 541.

Localities.—Dutch Guiana; Brazil.

NATADA FUSCA Druce.

Trabala (?) *fusca* DRUCE, Biol. Cent.-Am., Lep. Het., 1, 1887, p. 207.

Locality.—Panama.

NATADA COCHUBA Schaus.

Natada cochuba SCHAUS, Journ. N. Y. Ent. Soc., VIII, 1901, p. 231.

Locality.—Brazil.

NATADA NASONI Grote.

Sisyrosea nasoni GROTE, Can. Ent., VIII, 1876, p. 112.

Sisyrosea nasoni KIRBY, Cat. Lep. Het., 1892, p. 554.

Natada nasoni DYAR, Journ. N. Y. Ent. Soc., VII, 1899, p. 61.

Locality.—Southern Atlantic States, North America.

NATADA DAONA Druce.

Perola daona DRUCE, Biol. Cent.-Am., Lep. Het., I, 1887, p. 219.

Locality.—Costa Rica. Probably conspecific with the preceding.

NATADA SALTA Druce.

Perola salta DRUCE, Ann. Mag. Nat. Hist. (7), V, 1900, p. 512.

Locality.—Colombia.

NATADA PERPECTINATA, new species.

Dark reddish brown with the markings of *nasoni* or *daona*, the hind wings light red brown. Antennæ unusually heavily pectinated and the white spots at the tips of the fore coxæ very large.

Expanse.—24 mm.

Localities.—Two males, Nova Friburgo and Rio Janeiro, Brazil (W. Schaus); one male, in the British Museum, Espiritu Santo, Brazil; one male in the university museum at Oxford. Another male in the Burchell collection at Oxford (No. 164, collected Nov. 6, 1828) is of the same reddish color, but the dark lines are defined only by pale shades and are more oblique, the terminal space all whitish brown. The male antennæ seem moderately bipectinated, but the specimen is very old and partly destroyed.

Type.—Cat. No. 8995, U.S.N.M.

NATADA SUBPECTINATA, new species.

Dark purplish brown, the hind wings blackish, markings of *nasoni*, but the outer line as distinct as the inner, equally well pale edged and curved at the anal angle to inner margin. White spots on fore coxæ large. Antennæ shortly bipectinated, decreasing gradually to serrations at the tip.

Expanse.—18 mm.

Localities.—One male, Geldersland, Surinam River, Dutch Guiana (W. Schaus); one male in the University Museum at Oxford.

Type.—Cat. No. 8996, U.S.N.M.

NATADA CARIA Druce.

Perola caria DRUCE, Biol. Cent.-Am., Lep. Het., I, 1887, p. 219.

Locality.—Panama.

Genus HEURETES Grote and Robinson.

Heures GROTE and ROBINSON, Trans. Am. Ent. Soc., II, 1868, p. 190.

HEURETES PICTICORNIS Grote and Robinson.

Heures picticornis GROTE and ROBINSON, Trans. Am. Ent. Soc., II, 1868, p. 190.
Locality.—St. Thomas, West Indies.

Described from the female only; no other specimens known. The generic position is uncertain.

Genus PALEOPHOBETRON Dyar.

Paleophobetron DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 239.

PALEOPHOBETRON DERTOSA Druce.

Perola dertosa DRUCE, Ann. Mag. Nat. Hist. (7), V, 1900, p. 513.

Locality.—Colombia. I am much indebted to Mr. Herbert Druce for a specimen of this species.

PALEOPHOBETRON ARCUATA Druce.

Semyra (?) *arcuata* DRUCE, Biol. Cent.-Am., Lep. Het., II, 1898, p. 444.

Paleophobetron arcuata DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 239.

Locality.—Mexico.

PALEOPHOBETRON VAFERA Druce.

Perola vafera DRUCE, Ann. Mag. Nat. Hist. (7), V, 1900, p. 512.

Locality.—Colombia.

Genus EPIPEROLA Dyar.

Epiperola DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 238.

EPIPEROLA DRUCEI Schaus.

Trabala drucei SCHAUS, Proc. Zool. Soc. Lond., 1892, p. 323.

Locality.—Mexico.

EPIPEROLA LAGOAPHILA, new species.

Light straw yellow, thorax ocher, brown shaded, the tufted hairs tipped with gray. Fore wings shaded with silky brown from base, except along outer margin and over veins 2 to 4, where the straw color prevails. A black patch at origin of veins 2 to 4 and a small submarginal dot on veins 3 and 4, with a few dark scales on veins 7, 8, and 9 near their origin. Hind wings a little grayish shaded, especially on the veins.

Expanse.—25 mm.

Locality.—Four males, St. Jean, Maroni River, French Guiana (W. Schaus).

Type.—Cat. No. 8997, U.S.N.M.

EPIPEROLA PERORNATA, new species.

Straw color, thorax brown, abdomen shaded with black on the sides and segmental rings. Tibiæ with black hairs. Fore wings shaded with purplish brown, the apex broadly straw color. A black dot in the base of the cell and a discal dot. An outer line from costa subapically to middle of inner margin, twice arcuate, whitish, slender, edged without with brown varying in width, and by black within. Below the cell and on inner margin the black widens out into a patch. Two white dots on vein 1, preceding and following the black patch, the outer dot cutting the transverse line and with some orange scales superposed. A black bar on vein 5 in the upper angle of the transverse line with some lilaceous scales subapically below it, and a lilaceous dot below vein 7, below median vein and on vein 1 at base. Hind wings blackish, fringe of both wings straw color, spotted with black.

Expanse.—26 mm.

Locality.—One male, St. Jean, Maroni River, French Guiana (W. Schaus).

Type.—Cat. No. 8998, U.S.N.M.

EPIPEROLA SOMBRA, new species.

Brown black, the fore wings narrow and elongate. Two conspicuous white dots on collar. A semipellucid pale dilution below the median vein, running over the discal nervules. Hind wings semitransparent over the disk to outer margin.

Expanse.—22 mm.

Locality.—Two males, St. Jean, Maroni River, French Guiana (W. Schaus).

Type.—Cat. No. 8999, U.S.N.M.

EPIPEROLA ALBIMARGINATA Kaye.

Sisyroca albimarginata KAYE, Trans. Ent. Soc. Lond., 1901, p. 158.

Localities.—Trinidad; French Guiana.

EPIPEROLA PELUDA Dognin.

Perola peluda DOGNIN, Ann. Soc. Ent. Belg., XLIII, 1899, p. 7.

Localities.—Colombia; French Guiana. M. Dognin has kindly sent me his unique type, which agrees with specimens collected by Mr. Schaus.

Genus PEROLA Walker.

Perola WALKER, Cat. Brit. Mus., IV, 1855, p. 920.

Perola DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 238.

PEROLA VILLOSIPES Walker.

Trabala villosipes WALKER, Cat. Brit. Mus., XXXII, 1865, p. 555.

Phocoderma (?) *villosipes* KIRBY, Cat. Lep. Het., 1892, p. 538.

Perola villosipes DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 238.

Localities.—Colombia; French Guiana.

PEROLA SERICEA Möschler.

Asbolia sericea MÖSCHLER, Verh. zool.-bot. Ges. Wien., XXVII, 1878, p. 671.

Pseudasbolia sericea KIRBY, Cat. Lep. Het., 1892, p. 877.

Perola sericea DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 238.

Localities.—Dutch and French Guiana; Orizaba, Mexico.

PEROLA AFFINIS, new species.

Nearly allied to *sericea*, but the outer line nearer the margin, sub-continuous, dentated inward at vein 6 and slightly at vein 2. A silky whitish lilaceous shade below median vein, on vein 1 at base and over posterior half of thorax. All the veins streaked with red brown.

Expanse.—42 mm.

Locality.—One male, 60 miles up Maroni River, French Guiana (W. Schaus).

Type.—Cat. No. 9000, U.S.N.M.

PEROLA PETROPOLIS, new species.

Allied to *sericea* and *affinis*. Outer line more retracted than in *sericea*, curving from apex under median vein over discal nervules to base of wing, indented at vein 6. Veins brown within this area. Lilaceous color overspreads the area without the line faintly and covers all of thorax.

Localities.—Two males, Petropolis, Brazil (W. Schaus); one male, Mogy Guassa, São Paulo, Brazil.

Type.—Cat. No. 9001, U.S.N.M.

PEROLA PENUMBRA, new species.

Dark brown with a slight reddish bronzy tint. Body and legs a little lighter, the hind legs especially, pale brown. Fore wings umber brown, the veins, except along costal edge, lined in dark brown. Outer line faint, broad, well indicated at its inception on costa near apex, faint and clouded below, appearing strongly as a diffuse patch on vein 1c, below end of cell. Outer margin darkly clouded almost to the line; interspaces in cell and beyond slightly yellowish. Hind wings dark brown, a little lighter toward costa.

Expanse.—37 mm.

Locality.—One male, San Salvador, Central America, in the collection of M. Paul Dognin.

PEROLA INVARIA Walker.

Romosa invaria WALKER, Cat. Brit. Mus., V, 1855, p. 1115.

Asbolia micans MÖSCHLER, Stett. Ent. Zeit., XXXIII, 1872, p. 359.

Pseudasbolia micans KIRBY, Cat. Lep. Het., 1892, p. 877.

Localities.—Honduras; Dutch Guiana.

PEROLA PLATONA Schaus.

Perola platona SCHAUS, Journ. N. Y. Ent. Soc., IV, 1896, p. 56.

Locality.—Venezuela. Larger than *invaria*, but scarcely differing otherwise.

PEROLA DRUCEIOIDES Dognin.

Trabala druceioides DOGNIN, Ann. Ent. Soc. Belg., XXXVIII, 1894, p. 682.

Perola druceioides DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 239.

Locality.—Ecuador.

PEROLA CICUR Schaus.

Trabala cicur SCHAUS, Proc. Zool. Soc. Lond., 1892, p. 323.

Perola cicur DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 239.

Locality.—Brazil.

PEROLA RUBENS Schaus.

Trabala rubens SCHAUS, Proc. Zool. Soc. Lond., 1894, p. 237.

Perola rubens DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 239.

Locality.—Brazil.

PEROLA BRUMALIS Schaus.

Trabala brumalis SCHAUS, Proc. Zool. Soc. Lond., 1892, p. 323.

Perola brumalis DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 239.

Locality.—Brazil.

PEROLA BURCHELLI, new species.

Shape of *brumalis*. Dull ochraceous, a brown spot in center of thorax. Fore wings divided by a whitish line from base along median vein to end of cell, then curving gently to apex; another white line along outer margin from apex to middle of inner margin before the ochreous brown fringe. Costal area bright red brown, a little more ochreous on costal edge. Inner space red brown on basal half, the outer and larger part blackish gray. Hind wings whitish, brown on costa and tips of wings. Legs ochraceous, fore tibiae and palpi reddish brown.

Expanse.—31 mm.

Locality.—One male, Burchell collection, Hopeian Museum at Oxford (No. 743, collected Nov. 7, 1827) from Goyaz, Brazil.

PEROLA BISTRIGATA Hampson.

Orthocraspeda bistrigata HAMPSON, Trans. Ent. Soc., Lond., 1898, p. 259.

Perola lucia SCHAUS, Journ. N. Y. Ent. Soc., VIII, 1901, p. 231.

Locality.—St. Lucia, Grenadines.

Mr. Schaus's type and the three specimens in the British Museum have all lost the hind legs, leaving the correct generic reference in some doubt.

PEROLA CILIPES Walker.

Canila cilipes WALKER, Cat. Brit. Mus., V, 1855, p. 1126.

The type is without locality. I have seen no other specimens.

PEROLA SUCIA Schaus.

Perola sucia SCHAUS, Journ. N. Y. Ent. Soc., IV, 1896, p. 56.

Amydona sucia DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 237.

Locality.—Brazil.

PEROLA PUNCTATA Walker.

Candyba punctata WALKER, Cat. Brit. Mus., VII, 1856, p. 76.

Candyba punctata HAMPSON, Moths of India, I, 1894, p. 397.

Candyba punctata SWINHOE, Cat. Lep. Oxf., I, 1892, p. 235.

Locality.—Brazil. Prof. E. B. Poulton kindly brought me the type to London for examination. There is a second specimen in the Schaus collection from Geldersland, Surinam River, Dutch Guiana.

PEROLA SUBPUNCTATA Walker.

Amydona subpunctata WALKER, Cat. Brit. Mus., V, 1855, p. 1110.

Natata sericea BUTLER, Trans. Ent. Soc. Lond., 1878, p. 75.

Perola dora DRUCE, Biol. Cent.-Am., Lep. Het., I, 1878, p. 219.

Localities.—Brazil; Panama.

PEROLA PARALLELA, new species.

I shall describe this species more fully in an article Prof. E. B. Poulton will publish on the Burchell collection, made in Brazil in 1827-1828 and now in the Hopeian collection at Oxford. It is ochereous with two oblique subparallel lines.

PEROLA UMBER, new species.

Almost exactly like *Epiperola drucei* Schaus, but all dark bronzy brown instead of ochraceous, and differing generically by the four spurs on the hind tibiae. The line is edged with grayish outwardly below and there is a little of this color on the median vein. Beyond the line the ground color is lighter, divided by the dark veins.

Expanse.—26 mm.

Localities.—One male, St. Jean, Maroni River, French Guiana (W. Schaus); one female, Callao, Peru (Mrs. M. J. Pusey).

Type.—Cat. No. 9002, U.S.N.M.

PEROLA MURINA Walker.

Perola murina WALKER, Cat. Brit. Mus., IV, 1855, p. 920.

Locality.—Brazil.

PEROLA REPETITA Druce.

Perola repetita DRUCE, Ann. Mag. Nat. Hist. (7), V, 1900, p. 512.

Localities.—Colombia; French Guiana.

Genus ISOCHÆTES Dyar.

Isocrates DYAR, Journ. N. Y. Ent. Soc., VII, 1899, p. 208.

ISOCHÆTES BEUTENMUELLERI Hy. Edwards.

Limacodes beutenmuelleri Hy. EDWARDS, Can. Ent., XIX, 1887, p. 145.

Scymra beutenmuelleri KIRBY, Cat. Lep. Het., 1892, p. 534.

Locality.—Southern Atlantic States, North America.

Genus EUPHOBETRON, new genus.

Male antennæ shortly bipectinated to the tip, palpi slender, upturned to vertex; thorax robust, head sunken; hind tibiæ with four spurs. Fore wings with veins 7-9 stalked, normal.

Type.—*Euphobetron cupreitineta* Dyar.

EUPHOBETRON AQUAPENNIS, new species.

Large, robust; fore wings pale testaceous toward apex, purplish brown along inner margin. A fine pale waved line begins on inner margin and runs to costa; a branch leaves it on median vein curves down to vein 2, runs along it a short distance, then becomes submarginal and is lost in the subapical paler area. Below the line is purplish brown, above it red brown, fading to the pale subapical area; a brown discal dot. Apex dark brown with a costal spot before it. A terminal waved red line duplicated by small cusps. Hind wing bright red, overspread with brown broadly on the disk. Throat ochre brown, abdomen red.

Expanse.—36 mm.

Localities.—One male in the British Museum, Potaro River, British Guiana (C. B. Roberts); one male in the U. S. National Museum, Sapucay, Paraguay (W. T. Foster), the hind wings entirely red.

Type.—Cat. No. 9003, U.S.N.M.

EUPHOBETRON CUPREITINETA, new species.

Antennæ testaceous, tarsi light, legs purplish black. Head light above, thorax black; abdomen black above, lighter at tip and with purplish basal tufts. Wings marked as in *Phobetron*, purplish black, a cupreous brown patch filling lower half of median space; above it to outer line dull ochraceous, shaded with black, somewhat digitately divided by the dark veins. Black lines, transverse anterior, transverse posterior and subterminal, undulate, bent nearly together above cupreous patch, the subterminal denticulate, none reaching costa. Hind wings blackish.

Expanse.—23 mm.

Localities.—Nine males, St. Jean, Maroni River; 60 miles up Maroni River; Cayenne, French Guiana (W. Schaus). One specimen

has been placed in the British Museum. There is a specimen in poor condition at the University Museum, Oxford.

Type.—Cat. No. 9004, U.S.N.M.

EUPHOBETRON MOOREI Kirby.

Narosa rufotessellata MOORE, Proc. Lit. Phil. Soc. Liverpool, XXXVI, 1883, p. 366.

Narosa (?) moorei KIRBY, Cat. Lep. Het., 1892, p. 529.

Locality.—Brazil. Mr. Schaus collected a badly rubbed specimen which may be this species. I have not seen the type. It is at Liverpool.

EUPHOBETRON NATADOIDES, new species.

Dark chestnut brown, palpi paler, a red brown tuft at back of thorax tipped blackish; abdomen dark brown. Fore wings dark chestnut brown, irrorate with violet blue scales. Base dark blackish, obliquely limited without from basal third of inner margin, diffused above; beyond lighter chestnut brown. A line of violet scales from outer fourth of costa, oblique for a short distance, then sharply bent down and straight to above tornus. Within it a large blackish brown area of the color of the basal area and nearly touching it at the end of the cell. Apex dark, but less brown. Hind wings blackish, lighter at the base.

Expanse.—24 mm.

Locality.—One male, Parapanema, Province of St. Paul, Brazil, in the collection of M. Paul Dognin. The type is without antennæ, but I assume they are bipectinated to the tip.

Genus PHOBETRON Hübner.

Phobetron HÜBNER, Verz. bek. Schmett., 1827, p. 398.

PHOBETRON HIPPARCHIA Cramer.

Bombyx hipparchia CRAMER, Pap. Exot., II, 1777, pl. CLXXXV, fig. D.

Sphinx coras STOLL, Pap. Exot., IV, 1780, pl. CCCXII, fig. A.

Euryda variolaris HERRICH-SCHAEFFER, Ausser. Schmett., I, 1854, fig. 182.

Nemata bifuscies WALKER, Cat. Brit. Mus., IV, 1855, p. 968.

Nemata basifusca WALKER, Cat. Brit. Mus., V, 1855, p. 1083.

Localities.—Venezuela to Brazil.

PHOBETRON PITHECIUM Smith and Abbot.

Phalarna pitheciium SMITH and ABBOT, Lep. Ins. Ga., II, 1797, p. 74.

Phobetron pitheciium DYAR, Journ. N. Y. Ent. Soc., IV, 1896, p. 178.

Locality.—Atlantic States. North America.

Genus LEUCOPHOBETRON Dyar.

Leucophobetron DYAR, Journ. N. Y. Ent. Soc., V, 1897, p. 122.

Leucophobetron DYAR, Proc. Ent. Soc. Wash., VI, 1904, p. 77.

LEUCOPHOBETRON ARGENTIFLUA Hübner.

Euproctis argentiflua HÜBNER, Samml. Exot., Schmett., II, 1824.

Heterogenea argentiflua DEWITZ, Nov. act. k. Leop.-Car. Deut. akad. Nat., XLIV 1882, p. 252.

Euproctis argentiflua MÖSCHLER, Abh. Senck. nat. Ges., XVI, 1890, p. 349.

Altha rufipuncta HAMPSON, Ann. Mag. Nat. Hist. (7), VII, 1901, p. 253.

Locality.—Cuba, West Indies.

LEUCOPHOBETRON ARGYRORRHŒA Hübner.

Euproctis argyrorrhœa HÜBNER, Zutr. ex. Schmett., II, 1823, p. 13.

Locality.—Dutch Guiana. I have not seen this species, but place it here provisionally.

LEUCOPHOBETRON (?) PUNCTATA Druce.

Euclea (?) punctata DRUCE, Ann. Mag. Nat. Hist. (7), VII, 1901, p. 435.

Locality.—Colombia. Unknown to me and probably not belonging to this family. The type should be in Mr. Druce's collection, but he was unable to find it at the time I visited him.

Genus ALARODIA Möschler.

Alarodia MÖSCHLER, Abh. Senck. Ges., XIV, 1886, p. 35.

Alarodia DYAR, Journ. N. Y. Ent. Soc., V, 1897, p. 121.

ALARODIA IMMACULATA Grote.

Phryne immaculata GROTE, Proc. Ent. Soc. Phil., V, 1865, p. 246.

Calybia immaculata KIRBY, Cat. Lep. Het., 1892, p. 446.

Eupoeya nivalis PACKARD, Ent. News, IV, 1893, p. 169.

Calybia immaculata DYAR, Journ. N. Y. Ent. Soc., V, 1897, p. 121.

Locality.—Cuba.

ALARODIA SLOSSONIÆ Packard.

Eupoeya slossoniæ PACKARD, Ent. News, IV, 1893, p. 169.

Locality.—Florida and Texas, North America.

ALARODIA PYGMÆA Grote.

Euproctis pygmæa GROTE, Proc. Ent. Soc. Phil., VI, 1867, p. 320.

Calybia pygmæa DYAR, Journ. N. Y. Ent. Soc., V, 1897, p. 121.

Locality.—Cuba.

ALARODIA FUMOSA Grote.

Euproctis fumosa GROTE, Proc. Ent. Soc. Phil., VI, 1867, p. 321.

Locality.—Cuba. I have not seen this species. Described from a female.

ALARODIA MACULATA Schaus.

Altha maculata SCHAUS, Trans. Am. Ent. Soc., XXX, 1904, p. 138.

Locality.—Cuba. This may be the male of the preceding.

ALARODIA NANA Möschler.

Alarodia nana MÖSCHLER, Abh. Senck. Ges., XIV, 1886, p. 35.

Locality.—Jamaica. I have not seen this species. Described from one male.

ALARODIA JAMAICENSIS Schaus.

Eupoeya jamaicensis SCHAU, Journ. N. Y. Ent. Soc., IV, 1896, p. 57.

Locality.—Jamaica. I am much indebted to Lord Walsingham for a male of this species taken by himself at Runaway Bay, Jamaica. It has a row of black dots on the discal nervules.

Genus CRYPTOPHOBETRON, new genus.

Antennæ of male bipectinated to the tip, the pectinations moderate; palpi short, slender, appressed, upturned, reaching the lower third of the front; hind tibiæ with four spurs, the upper pair short and appressed. Fore wings with 12 veins, 7 to 10 stalked, 2 and 3 separate; hind wings with 2 to 5 well spaced, 6 and 7 coincident, 8 anastomosing with the subcostal at middle of cell.

CRYPTOPHOBETRON OROPESO Barnes.

Limacodes oropeso BARNES, Can. Ent., XXXVII, 1905, p. 215.

Locality.—Arizona. In originally determining this species for Doctor Barnes as undescribed, I refrained from indicating its exact generic position.

Expansion.—14 mm.

Genus VIPSOPHOBETRON, new genus.

Antennæ simple in both sexes; palpi slender, upturned nearly to the vertex; hind tibiæ with very long middle and end spurs in both sexes. Thorax moderate, head subprominent. Wings alike in the two sexes, trigonate, produced. Fore wings with veins 8-10 stalked, else normal, or vein 10 from the end of the cell in the female.

Type.—*Vipsophobetron marona* Dyar.

VIPSOPHOBETRON MARONA, new species.

Dark blackish brown, lustrous purplish shining. Inner, outer, and submarginal lines hardly relieved from the ground color, but not shining and edged with a few ocher brown scales. Hind wings dark brown.

Expansion.—Male, 13 mm.; female, 19 mm.

Localities.—Two males, one female, St. Jean, Maroni River, and Cayenne, French Guiana (W. Schaus).

Type.—Cat. No. 9005, U.S.N.M.

VIPSOPHOBETRON MARISA Druce.

Semyra marisa DRUCE, Ann. Mag. Nat. Hist. (7), V, 1900, p. 513.

Locality.—Colombia.

VIPSOPHOBETRON (?) MARINNA, new species.

Dark blackish brown, thickly sprinkled with violet scales. Outer line curved, dentate, dark red brown, in the bend around the cell the intravenular spaces are paler and somewhat digitate. A large dark discal cloud. Apex to middle of outer margin ochraceous. Hind wings dark brown.

Expanse.—25 mm.

Locality.—Two females, Cayenne, French Guiana (W. Schaus).

Type.—Cat. No. 9006, U.S.N.M.

This may prove referable to *Isochætes* when the male is known.

Genus PSEUDOVIPIPSANIA Dyar.

Pseudovipsania DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 239.

PSEUDOVIPIPSANIA FRIGIDA Schaus.

Vipsania frigida SCHAUS, Proc. Zool. Soc. Lond., 1892, p. 323.

Locality.—Mexico.

PSEUDOVIPIPSANIA INVERA, new species.

Head retreating but scarcely sunken, thorax projecting well before insertion of wings; wings elongate. Head and thorax pink, shading to straw color on patagia and brown on metathorax, black irrorate. Abdomen reddish brown above, straw color below. Fore femora dark brown, middle legs with black hair on tarsi. Both wings somewhat transparent. Fore wings brown along costa and at base, straw yellow medially, shaded with purplish terminally; a subterminal line wavy on the veins, traces of another line beyond the cell from costa to vein 5; a discal arc and broken mesial line. A black dot at extreme base. Hind wing pale ochreous, reddish along abdominal margin.

Expanse.—29 mm.

Localities.—Two males, St. Jean and St. Laurent, Maroni River, French Guiana (W. Schaus).

Type.—Cat. No. 9007, U.S.N.M.

Genus ULAMIA Möschler.

Ulamia MÖSCHLER, Verh. zool.-bot. Ges. Wien, XXXII, 1883, p. 339.

ULAMIA DOLABRATA Stoll.

Bombyx dolabrata STOLL, Pap. Exot., IV, 1780, pl. cccvi, fig. F.

Scopelodes whitelyi DRUCE, Proc. Zool. Soc. Lond., 1893, p. 299.

Locality.—Guianas.

ULAMIA SERICEA Schaus.

Amydona sericea SCHAUS, Proc. Zool. Soc. Lond., 1892, p. 324.

Amydona sericea DYAR, Journ. N. Y. Ent. Soc., VI, 1898, p. 237.

Locality.—Peru.

Genus *TANADEMA*, new genus.

Male antennæ singly pectinate, the pectinations slender, dense, decreasing rapidly, the terminal half simple. Palpi upturned nearly to vertex. Hind tibiæ with four spurs. Wings trigonate, ample, fore wings with veins 7-10 stalked, hind wings with 6 and 7 from a point, normal.

Type.—*Tanadema mas* Dyar.

TANADEMA MAS, new species.

Purple brown, glossy; palpi, vertex of head, and basal abdominal tufts bright ochre. Fore wings with an obscure dark discal dot and two parallel wavy lines, distinct only below vein 3. Hind wing brown.

Expanse.—17 to 19 mm.

The female is like the male, but larger, with simple antennæ, the wings less pointed.

Localities.—Six males, St. Jean and St. Laurent, Maroni River, French Guiana; Geldersland, Surinam River, Dutch Guiana (W. Schaus); 3 males in the British Museum, Rockstone, British Guiana (W. J. Kaye); 1 female in the British Museum, British Guiana (C. B. Roberts).

Type.—Cat. No. 9008, U.S.N.M.

TANADEMA FEMINA, new species.

Similar to *mas*, but smaller, of a more vivid brown, almost red, the ochreous tufts of abdomen hardly visible, and the outer line of fore wings slenderer, more excurved around the cell and retracted below vein 2.

Expanse.—10 mm.

Locality.—Two males, St. Jean, Maroni River, French Guiana.

Type.—Cat. No. 9009, U.S.N.M.

TANADEMA INCONGRUA, new species.

Fore wings sharply pointed, the costa straight to apex. Dark purplish brown on basal area, sharply limited from middle of costa to just before anal angle, the apical half of wing paler, darkened again along costa and clouded marginally. Hind wings blackish brown.

Expanse.—20 mm.

Localities.—One male, St. Jean, Maroni River, French Guiana (W. Schaus); one male in the University Museum at Oxford. Resembles the members of the next genus, but has pectinate antennæ.

Type.—Cat. No. 9010, U.S.N.M.

Genus *DICHROMAPTERYX*, new genus.

As in *Tanadema*, but the male antennæ shortly uniserrate, without any pectinations.

Type.—*Dichromapteryx dimidiata* Dyar.

DICHROMAPTERYX OBSCURA, new species.

Purplish brown, sharply limited on fore wings by a dull lilaceous shade from middle of costa to anal angle, apex again broadly darkened with the basal color, faintly indicating a dark submarginal shade and trace of discal bar. Hind wing blackish brown.

Expanse.—20 mm.

Localities.—Two males, St. Jean, Maroni River, French Guiana; Surinam River, Dutch Guiana (W. Schaus).

Type.—Cat. No. 9011, U.S.N.M.

DICHROMAPTERYX DIMIDIATA, new species.

Palpi, head, and thorax lilaceous, shading to brown on posterior part of thorax and abdomen. Basal half of wings dark brown, paler basally, sharply limited from middle of costa to anal angle. Apical half pale lilaceous whitish, shading to brown at apex. Two superposed black discal points. Hind wings dark brown.

Expanse.—23 mm.

Locality.—Two males, St. Jean, Maroni River, French Guiana (W. Schaus).

Type.—Cat. No. 9012, U.S.N.M.

DICHROMAPTERYX ULTIMA, new species.

Antennæ of male simple, smooth, flattened, without serrations. Head, fore legs, body, and base of fore wings dark chocolate brown, on fore wings sharply limited by a whitish line, straight from middle of costa to anal angle; beyond purplish brown, rather dark, suffused with the basal color at apex, obliquely inward and curving to tornus. Hind wings pale brown, lighter at base. Below uniformly pale brown.

Expanse.—20 mm.

One male in the University Museum at Oxford.

Genus PROLIMACODES Schaus.

Prolimacodes SCHAU, Journ. N. Y. Ent. Soc., IV, 1896, p. 56.

PROLIMACODES TRIANGULIFERA Schaus.

Prolimacodes triangulifera SCHAU, Journ. N. Y. Ent. Soc., IV, 1896, p. 56.

Locality.—Mexico.

PROLIMACODES (?) GIBBOSA Sepp.

Phalæna gibbosa SEPP, Surin. Vlind., 1848, pl. cxxix.

Locality.—Dutch Guiana. Not known to me in nature.

PROLIMACODES SCAPHA Harris.

Limacodes scapha HARRIS, Rep. Ins. Mass., 1841, p. 303.

Prolimacodes scapha DYAR, Journ. N. Y. Ent. Soc., IV, 1896, p. 172.

Locality.—Atlantic States, North America.

PROLIMACODES TRIGONA Hy. Edwards.

Limacodes trigona Hy. EDWARDS, Pap., II, 1882, p. 12.

Prolimacodes trigona DYAR, Bull. 52, U. S. Nat. Mus., 1903, p. 356.

Locality.—North America, Arizona. Mr. C. Schaeffer has taken this species in some numbers in the Huachuca Mountains. The serrations of the male antennæ are much longer than in *scapha*.

The following genera are confined to North America and the Holarctic region, so far as at present known.

Genus HETEROGENEA Knoch.

Heterogena KNOCH, Beitr. Ins., III, 1793, p. 60.

HETEROGENEA SHURTLEFFII Packard.

Heterogena shurtleffii PACKARD, Proc. Ent. Soc. Phil., III, 1864, p. 346.

Locality.—Atlantic States.

Genus KRONÆA Reakirt.

Kronæa REAKIRT, Proc. Ent. Soc. Phil., III, 1864, p. 347.

KRONÆA MINUTA Reakirt.

Limacodes minuta REAKIRT, Proc. Ent. Soc. Phil., III, 1864, p. 251.

Locality.—Atlantic States. No specimens of this species are known to exist.

Genus TORTRICIDIA Packard.

Tortricidia PACKARD, Proc. Ent. Soc. Phil., III, 1864, p. 347.

TORTRICIDIA FISKEANA Dyar.

Tortricidia fiskeana DYAR, Ent. News, X, 1900, p. 333.

Locality.—Atlantic States.

TORTRICIDIA GRÆFII Packard.

Lithacodes græfii PACKARD, Ent. Amer., III, 1887, p. 52.

Locality.—Texas.

TORTRICIDIA FLEXUOSA Grote.

Limacodes flexuosa GROTE, No. Am. Ent., I, 1880, p. 60.

Locality.—Atlantic States.

TORTRICIDIA TESTACEA Packard.

Tortricidia testacea PACKARD, Proc. Ent. Soc. Phil., III, 1864, p. 348.

Locality.—Atlantic States.

TORTRICIDIA CRYPTA Dyar.

Tortricidia testacea var. *crypta* DYAR, Proc. U. S. Nat. Mus., XXV, 1902, p. 395.

Localities.—Colorado; Manitoba; British Columbia.

TORTRICIDIA PALLIDA Herrich-Schaeffer.

Limacodes pallida HERRICH-SCHAEFFER, Ausser. Schmett., 1854, fig. 183.

Locality.—Atlantic States.

Genus **SLOSSONELLA** Dyar.

Slossonella DYAR, Proc. Ent. Soc. Wash., VI, 1904, p. 117.

SLOSSONELLA TENEBROSA Dyar.

Slossonella tenebrosa DYAR, Proc. Ent. Soc. Wash., VI, 1904, p. 117.

Locality.—Florida.

Genus **COCHLIDION** Hübner.

Cochlidion HÜBNER, Tentamen, 1806.

COCHLIDION BIGUTTATA Packard.

Limacodes biguttata PACKARD, Proc. Ent. Soc. Phil., III, 1864, p. 341.

Locality.—Atlantic States.

COCHLIDION RECTILINEA Grote and Robinson.

Limacodes rectilinea GROTE and ROBINSON, Trans. Am. Ent. Soc., II, 1868, p. 188.

Locality.—Atlantic States.

COCHLIDION LATOMIA Harvey.

Limacodes latomia HARVEY, Can. Ent., IX, 1875, p. 75.

Locality.—Texas.

COCHLIDION Y-INVERSA Packard.

Limacodes y-inversa PACKARD, Proc. Ent. Soc. Phil., III, 1864, p. 341.

Locality.—Atlantic States.

Genus **LITHACODES** Packard.

Lithacodes PACKARD, Proc. Ent. Soc. Phil., III, 1864, p. 345.

LITHACODES FASCIOLA Herrich-Schaeffer.

Limacodes fasciola HERRICH-SCHAEFFER, Ausser. Schmett., I, 1854, fig. 186.

Locality.—Atlantic States.

Genus **PACKARDIA** Grote and Robinson.

Packardia GROTE and ROBINSON, Ann. Lye. Nat. Hist. N. Y., VIII, 1866, p. 373.

PACKARDIA ELEGANS Packard.

Cyrtosia elegans PACKARD, Proc. Ent. Soc. Phil., III, 1864, p. 342.

Locality.—Atlantic States.

PACKARDIA GEMINATA Packard.

Cyrtosia geminata PACKARD, Proc. Ent. Soc. Phil., III, 1864, p. 343.

Locality.—Atlantic States.

PACKARDIA ALBIPUNCTATA Packard.

Cyrtosia albipunctata PACKARD, Proc. Ent. Soc. Phil., III, 1864, p. 344.

Locality.—Atlantic States.

UNIDENTIFIED SPECIES.

The following have been described as Limacodidæ or referred to that family, but I am unable to identify them:

Agisa basalis WALKER, Cat. Brit. Mus., VII, 1856, p. 1757.—Rio Janeiro, Brazil.

Limacodes concolor WALKER, Cat. Brit. Mus., XXXII, 1865, p. 487.—Amazon region.^a

Niaca curvimargo WALKER, Cat. Brit. Mus., V, 1855, p. 1156.—Rio Janeiro, Brazil.

Mureda ferruginea WALKER, Cat. Brit. Mus., V, 1855, p. 1157.—Rio Janeiro, Brazil.^b

Surida incisa WALKER, Cat. Brit. Mus., V, 1855, p. 1145.—Rio Janeiro, Brazil.

Renada lateralis WALKER, Cat. Brit. Mus., III, 1855, p. 771.—Rio Janeiro, Brazil.

Amydona punctata WALKER, Cat. Brit. Mus., V, 1855, p. 1111.—Rio Janeiro, Brazil.

Agisa rufoflava WALKER, Cat. Brit. Mus., V, 1855, p. 1129.—Rio Janeiro, Brazil.

Clanara terminata WALKER, Cat. Brit. Mus., V, 1855, p. 1099.—Rio Janeiro, Brazil.

Nyssia varia WALKER, Cat. Brit. Mus., V, 1855, p. 1137.—Habitat unknown.

All the other South American species mentioned in Kirby's Catalogue Lepidoptera Heterocera as Cochlidiidæ (Limacodidæ), except those listed in this paper, belong to other families.

^a Probably belonging to the Dalceridæ.

^b Perhaps a species of *Natada*.