# NOTES ON SOME SPECIES OF NOTODONTIDÆ IN THE COLLECTION OF THE UNITED STATES NATIONAL MUSEUM, WITH DESCRIPTIONS OF NEW GENERA AND SPECIES.

By Harrison G. Dyar. Family NOTODONTIDÆ.

#### Malocampa puella, n. sp.

Thorax dark brown on the disk, the patagia silvery gray, tegulæ and vertex cinereous. Abdomen brown dorsally, pale beneath, the last segment silvery gray. Fore wings yellowish silvery-gray, a brown spot on costa at basal third, obsoletely connected to a large triangular patch on the middle of inner margin; a small costal patch at outer third, followed by three costal dots; a terminal row of brown spots in the fringe. Hind wings brown, irregularly yellowish towards the base. Beneath washed with brown, the hind wings yellowish except at the margins. Expanse 45 mm.

One male and 3 females, Aroa, Venezuela, and Orizaba, Mexico (collection of Wm. Schaus).

Type.—No. 11319, U. S. National Museum.

I have separated this species from the series of *Malocampa bolivari* Schaus in the Schaus collection. The types of *bolivari* consisted of a male and female, but in reality both are females, one with pectinated antennæ, the other with simple antennæ. I have restricted *bolivari* to the male type (really a female) and describe the species with simple antennæ in the female as *puella*.

## Congruia congrua, n. gen. and sp.

Vein 5 of secondaries obsolete; accessory cell present on fore wings, small, vein 6 arising from its middle, 7 to 10 stalked, 10 arising near base of stalk; antennæ of male fasciculate on basal half; vein 8 of hind wings diverging from cell at middle, palpi upturned, exceeding the vertex, the second joint thickened with scales, the third long, slender, nude. Wings long and narrow. Thorax brown, with ocherous intermixture on patagia, a high backwardly-directed tuft on collar blackishtipped behind; abdomen brown above, pale ochraceous below, a double brown dorsal line on the last two segments. Fore wing longitudinally lined; a heavy brown shade along median vein from base straight along vein 4 to margin; another line along vein 6 running to costa at base of this vein, the space between veins 4 and 6 beyond cell nearly continuously brown shaded; a similar shade along internal margin; faint tracings of fine lines on the outer third of wing, most distinct on costa; a waved, broken double line at the base of the fringe; a round

black discal point; hind wings whitish, with a dark brown, rather narrow border on outer margin and outer half of costa. Expanse 70 mm.

One male, Rio Janeiro, Brazil (collection of Wm. Schaus). *Type.*—No. 11320, U. S. National Museum.

#### Azaxia, n. gen.

Vein 5 of secondaries present; inner margin of primaries with a tuft of scales; primaries with areole; vein 5 from below angle of cell; outer margin crenulate; veins 7 to 9 stalked; vein 10 from the areole, which is long and narrow.

Type: Azaxia luteilinea = Heterocampa luteilinea Druce (Ann. Mag. Nat. Hist. (7), XIII, p. 249, 1904).

#### Eustemides, n. gen.

Vein 5 of secondaries present; inner margin of primaries without a tuft of scales; areole absent; veins 7 to 9 stalked.

Type: Eustemides carama = Eustema carama Druce (Ann. Mag. Nat. Hist. (7), XIII, p. 248, 1904).

#### Heterocampa puseyæ, n. sp.

Thorax and abdomen grayish brown, the thorax dark in front, the posterior tuft and ends of patagia lighter; beneath dull ochraceous. Fore wing light brown, broadly shaded with dark brown along the basal half of the costa and in an area beyond and below cell above vein I, limited outwardly by a pale subterminal shade parallel to the outer margin; lines very faint, the outer traceable, pale, strongly dentate on the veins with pale points, single, excurved over cell, both lines more visible below cell, distinct on vein I, relieved in a narrow brownblack marginal shading; two superposed small black discal dots; a terminal row of slender blackish dashes. Hind wing brown, the disk somewhat varied with ochraceous. Beneath the hind wings entirely pale, the fore wings shaded with brown except at the base. Expanse 37 mm.

One male, Callao, Peru (Mrs. M. J. Pusey, collector). *Type.*—No. 11331, U. S. National Museum.

Nearly allied to H, mephitis Schaus, but the discal dots both small and of equal size.

# Pheosia rimosa Packard.

This species has been going under the wrong name of dimidiata Herr.-Sch. The figure does not fit our species, and no one would have thought of such an identification, but for Herrich-Schaeffer's locality "Am. sept." It is more probable

that the locality is an error, and Brazil should be substituted. See the following:

#### Rhuda dimidiata Herrich-Schæffer.

Drymonia dimidiata Herr.-Sch., Ausser. Schmett., p. 66, fig. 515, 1856. Rhuda endymion Schaus, Proc. Zool. Soc. Lond., 1892, p. 340. (Not Pheosia dimidiata of Bul. 52, U. S. Nat. Mus., No. 3118, etc.)

Herrich-Schæffer's figure obviously represents a female of this Brazilian species and not the North American one with which it has been identified.

#### Rhuda lesca, n. sp.

Head and thorax dark brown, the collar lighter, with a broken black line anteriorly, the square patagial tufts pinkish tipped; abdomen dark gray, yellowish at the base, with a small basal blackish tuft. Fore wing pinkish silvery-white in the middle, defining a large quadrate costal patch, sharply limited, following vein 4 from its origin to position of subterminal line where it runs to costa parallel to outer margin; inner margin of patch oblique to basal fourth of costa; the patch is nearly black below but fades out to nearly whitish along the costa. A dark shade from costa at base extends over the wing below vein 2, terminating in three sinuous black lines subterminally, the space beyond them again narrowly white, subocellate; a white line from base curves down and runs along vein I to beyond middle, below which the inner area is whitish and pale brown suffused, but without any gray irroration; outer margin faintly darker shaded. Hind wings largely fuscous, the disk about vein 2 and the inner margin pale yellowish. Expanse 50 mm. The fore wings are broad and squarely cut.

One female, Castro, Parana, Brazil (collection of Wm. Schaus).

Type.—No. 11333, U. S. National Museum.

# Rhuda lorella, n. sp.

Markings essentially as in the preceding species. Abdomen brown, the two basal segments ocherous, without black basal tuft. Fore wings with the costal patch longer, its outer border somewhat excavated; basal line white, stopping before middle of wing and with silvery gray irrorations below it; outer line before tornus double, incurved and dentate on veins 1 and 2, followed by a blackish patch on vein 2 and a white dentate subterminal line, beyond which is a slender black line, very near the margin below, more remote above, and becoming quadrately produced between the veins above vein 4. Hind wings largely fuscous, the inner margin and a small space above vein 2 ocher-yellow. Expanse 55 mm. The fore wings are broad and squarely cut.

One female, Castro, Parana, Brazil (collection of Win. Schaus).

Type.—No. 11334, U. S. National Museum.

#### Rhuda labella, n. sp.

Closely allied to *Rhuda minor* Schaus, the markings of the fore wings being almost identical. The species, however, is larger and the hind wings are differently colored, being ocherous, with a narrow outer fuscous border, the fringe again ocherous. Expanse 60 mm. The wings are long and pointed.

One male, Nova Friburgo, Brazil (collection of Wm. Schaus).

Type.—No. 11335, U. S. National Museum.

Synopsis of the Species of Rhuda Walker.

Fore wing with a dark narrow line from base to outer margin,

dimidiata Herrich-Schaeffer.

Fore wing with a dark costal patch bordered below by a wide pinkishwhite band.

Silvery basal dash projecting; hind wing ocherous, a broad outer and costal dark border, the disk unspotted to inner margin,

diffusum Felder.

Silvery basal dash continued along vein I, not projecting.

Costal patch rounded; hind wing yellowish, with an apical shade and black spot at the pointed anal angle,

dissona Schaus.

Costal patch truncate on vein 4.

A bluish-silvery irroration at base of inner margin.

Marking above anal angle macular, the preceding
lines fine and broken.

Smaller; hind wing largely fuscous,

minor Schaus.

Larger; hind wing ocherous, with a narrow fuscous outer border......labella Dyar. Marking above anal angle preceded by a distinct

Marking above anal angle preceded by a distinct black line and followed by a white angulated one, lorella Dyar.

Irroration at base of inner margin without blue-gray tint.

Middle space of wing largely clear white,

geometrica Schaus.

Middle white space largely encroached upon by lines and irrorations......focula Cramer.

## Brecontia plagipennis, n. gen. and sp.

Vein 5 of secondaries absent; areole present, vein 5 arising close to upper angle of cell, vein 6 from the middle of the areole, 7 from end of areole, 8 and 9 stalked, 10 from before end of areole, which is long and narrow; vein 8 of hind wings diverging from 7 at middle of cell, veins 3 and 4 separate, 6 and 7 shortly stalked. Antennæ pectinated on the basal portion. Wings broad, trigonate, normal, the inner margin without scale-tuft.

Center of thorax reddish brown, patagia grayish clay-color; abdomen brown above, the segmental rings lighter, beneath whitish clay-color. Fore wing whitish clay-color; a large chocolate-brown patch from base on costa to the outer line, reaching vein 1 to middle of wing, then obliquely waved to vein 3, on which and on vein 5 is a rounded projection; the inner line cuts this patch as a zigzag dash on the ground-color, widest on costa, sharply angled on subcostal and at origin of vein 2; a large rounded, cloudy-black discal spot; in the broad pale outer area a brown spot follows the projection of the basal patch on vein 3, its outer edge trilobate and followed by a long patch with dentate inner edge, following the outer margin and diminishing in width toward both apex and tornus. Hind wing brown, paler at the base, the fringe pale. Expanse 38 mm.

One female, Callao, Peru (Mrs. M. J. Pusey). Type.—No. 11336, U. S. National Museum.

# Nagidusa cinescens Schaus.

Nagidusa cinescens Schaus, Trans. Ent. Soc. Lond., p. 322, 1901.

Macrurocampa marthesia, var. miranda Dyar, Sci. Bul., Brookl. Inst.,
1: 7, 185, 1905.

The above synonymy will obtain. Nagidusa Walker differs from Macrurocampa Dyar in having veins 3 and 4 of secondaries apart; otherwise the genera are closely allied. N. cinescens Schaus must be added to the North American list.

## Gisara ambigua, n. sp.

Head soiled white on the vertex, including the tufts at base of antennæ, collar dark brown, patagia gray, variegated with brown; abdomen gray dorsally, the anal tuft somewhat ocherous. Fore wing gray-brown, tinged with reddish; base lighter, the subbasal line black, geminate; inner line faintly indicated by a fine zigzag black line; a small black discal point; outer line indicated, waved, brown-black, closely followed by a row of rounded black spots; a subterminal row of black spots between the veins. Hind wing fuscous. Expanse 65 mm.

One male, Callao, Peru (Mrs. M. J. Pusey). Type.—No. 11337, U. S. National Museum.

Under Gisara ionia (Heterocampa ionia Druce, Ann. Mag. Nat. Hist. (7), v, p. 515, 1900) Druce describes the female as "without the bluish-gray patch at the anal angle." It seems probable that this female represents a distinct species, perhaps the one here described.

#### Hemiceras echo, n. sp.

Whitish gray, without rosy tint; three lines present on fore wings, white, straight, the basal with a dark border within, the inner one narrowly dark bordered without, the outer one broadly bordered within; spaces between rather heavily irrorated with brownish gray, leaving a pale space extending from anal angle; discal mark an oval cloud; subterminal line indicated, faint, wavy, limited within by dark shading. Hind wing whitish, the veins brown, the margins and the male stigma brown, the fringe whitish. Collar brown, vertex and thorax light gray, abdomen brownish dorsally. Expanse 40 to 50 mm.

Seven specimens, Callao, Peru (Mrs. M. J. Pusey); Omai, British Guiana (W. Schaus); St. Jean, Maroni River, French Guiana (W. Schaus).

Type.-No. 11342, U. S. National Museum.

Allied to *H. indistans* Guen., with which some of the specimens had been identified, but the color is whitish ashen, lacking the rosy brownish tint of that species.

# Hemiceras buscki, n. sp.

Head, collar, and thorax light brownish-ocherous, with a rosy tint; abdomen more brownish above. Fore wing of the color of thorax, the lines straight and rigid, distant on costa, approximate on inner margin, narrow, dark brown, with narrow pale outer borders; discal dots two, oblique, distinct, small. Hind wing whitish, the stigma of the male large, dark brown. Expanse 37 mm.

One male, Tabernilla, Canal Zone, Panama (A. Busck). Allied to *H. indigna* Schaus, but the hind wings much paler, so that the dark brown stigma strongly contrasts. *Type.*—No. 11343, U. S. National Museum.

# Hemiceras subdigna, n. sp.

Head, thorax, and dorsum of abdomen purplish brown, not very dark. Fore wing of the same color, lighter in the median space and at anal angle; lines straight and rigid, white, defined by narrow brown lines within, well separated on the costa which the outer line reaches well before apex; discal dots two, separated, oblique, clouded, the upper one faint; outer margin above tornus darkly shaded. Hind wings brown, the dark stigma not contrasted. Expanse 38 mm.

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

Type.—No. 11344, U. S. National Museum.

Allied to *H. indigna* Schaus, but the subterminal line is entirely undefined, the margin being shaded with brown.

#### Hemiceras unimacula, n. sp.

Head with white tufts on the vertex, collar dark brown, thorax pinkish brown, the abdomen dorsally darker. Fore wing pinkish brown, finely and evenly irrorated with dark brown; lines divergent, ocherous, narrowly edged with dark brown towards the median space, the outer attaining the costa before apex; a large, rounded, blackish discal spot, very distinct in the male, clouded and fainter in the female; an obscure yellowish spot close to base; two small blackish dots connected by a shade on middle of terminal space. Hind wing dark brown, of the color of the abdomen, the male stigma large, not contrasted. Expanse 40 to 48 mm.

Two males, two females, St. Jean and St. Laurent, Maroni River, French Guiana; Rockstone, Essequebo River, Dutch Guiana (W. Schaus).

Type.-No. 11345, U. S. National Museum.

#### Hemiceras tricolora, n. sp.

Head with white tufts on the vertex, collar dark brown, thorax pinkish brown, the abdomen dorsally more reddish brown. Fore wing pinkish brown, finely and evenly irrorated with darker, the lines very distinct, oblique, not strongly divergent, the outer one reaching the costa at apex, three-colored, dark brown toward the median space, then red-brown, then ocherous; discal dots two, small, clouded, very obscure; two faint dark dots on middle of terminal space (on veins 3 and 4), connected by a shade; fringe dark brown. Hind wing whitish, the veins toward the margin and the male stigma brown as well as a narrow marginal line before the whitish fringe. Expanse 38 mm.

One male, Carabaya, Peru (Schaus collection). *Type*.—No. 11346, U. S. National Museum.

This species somewhat suggests the description of *H. obliquicola* Walker, specimens of which are not before me.

## Hemiceras astigma, n. sp.

Head with white tufts on the vertex; collar, thorax, and abdomen dorsally dark brown. Fore wing shining dark brown, the lines strongly divergent, the inner erect, the outer oblique to apex, pinkish brown, strongly edged with dark brown within; discal mark a round dark cloud; fringe and inner margin chocolate brown. Hind wing whitish

between the veins, the inner and outer margins suffused with brown, a brown marginal line, the fringe whitish. No stigma on vein 2. Hind wings beneath entirely yellowish white. Expanse 41 mm.

One male, Carabaya, Peru (Schaus collection). Type.—No. 11347, U. S. National Museum.

#### Hemiceras colombia, n. sp.

Head with a few white hairs on the vertex, the collar, thorax, and abdomen dorsally unicolorous reddish brown, the patagia edged with dark purple. Fore wing reddish brown, the irrorations obscured; lines divergent, the inner one narrow and slender, slightly oblique, dark brown, the outer oblique to apex, distinct and broad, dark brown, ending in a blackish cloud at apex from which also runs a faint blackish, subterminal line, hardly waved; discal dot an oblique blackish bar, more distinct in the female. Hind wing brown, the male stigma large but not contrasted in color. Expanse 43 to 47 mm.

Two males, one female, Colombia (W. E. Pratt, collector, Schaus collection).

Type.—No. 11348, U. S. National Museum.

#### Hemiceras ochrospila, n. sp.

Head with white tufts at base on antennæ, collar dark brown, thorax and abdomen very pale ocherous. Fore wing very pale ocherous, finely, obscurely irrorated with darker, the lines divergent, straight, rigid, the outer running to apex, yellowish, edged within by brown, but entirely faint; a faint, double dark discal spot. Hind wing straw-yellow, the stigma very pale brown. In the single specimen there is a large semilunate black spot on the dorsum on the fifth segment of the abdomen, followed by two brown streaks, but this may be an imperfection. Expanse 47 mm.

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

Type.—No. 11349, U. S. National Museum.

Allied to *H. leucospila* Walker, but that has a rounded discal spot, and the lines are broader and more contrasted.

# Hemiceras calaonis, n. sp.

Head and thorax dark pinkish brown, the collar and patagia narrowly lined with dark purple; abdomen dorsally darker, more brownish, beneath pale yellowish. Fore wing dark reddish brown, the lines straight, divergent, the inner nearly upright, dark brown, accompanied by white points, the outer oblique, running to apex, dark brown, edged without with golden ochraceous; subterminal line indicated by a golden shade, wavy, faint; two brown discal dots, obliquely placed. Hind wing pale brown, the veins dark, the male stigma very large and dark brown, the margin slightly dark shaded, the fringe paler. Expanse 40 mm.

One male, Callao, Peru (Mrs. M. J. Pusey). *Type*.—No. 11352, U. S. National Museum. Allied to *H. stupida* Schaus, but the inner line is distinct.

#### Hemiceras kearfotti, n. sp.

Head and thorax light pinkish brown, abdomen dark brown above, yellowish white below. Fore wing light pinkish brown, finely darker irrorate, the veins faintly darker lined outwardly; lines divergent, the inner nearly upright, yellowish brown, slender, accompanied by white points; outer line oblique, running to apex, yellowish brown, edged with golden yellow without; discal dots two, oblique, the lower one large and oval, the upper small; subterminal line faintly indicated, visible only in certain lights; costal edge yellowish white. Hind wing whitish on the disk between the veins, which are brown; margin narrowly brown shaded, the fringe white; male stigma large, very dark brown. Expanse 40 mm.

One male, Victoria, Brazil, received several years ago from Mr. W. D. Kearfott.

Type.—No. 11353, U. S. National Museum. Distinguished by the white costal edge.

#### Hemiceras domingonis, n. sp.

Head and thorax dark pinkish brown, the abdomen dorsally a little lighter, pale yellowish beneath. Fore wing shining dark bronzy brown, minutely purplish irrorate; lines a shade paler than the ground color, distinct although but slightly contrasted in color, the inner arcuate, angled on submedian and discal folds, with black points on the veins towards median space; outer line straight, reaching costa well before apex, with black points on the veins within; a large oblique blackish discal cloud, somewhat trilobate; a faint dark cloud preceding the position of the subterminal line, which is however not indicated. Hind wing brown, pale at the base, beneath pale yellow. Expanse 40 mm.

One female, San Francisco Mts., Santo Domingo (A. Busck).

Type.—No. 11354, U. S. National Museum.

In the absence of a male this species may not be correctly referred generically.

# Hemiceras singuloides, n. sp.

Head, thorax, and abdomen dark brownish purple, the vertex with a few white hairs; abdomen paler purplish above, yellowish on the sides, pale purplish ventrally; fore tibiæ outwardly dark purple. Fore wing shining dark brownish purple, a dark blackish bronzy shade on upper two-thirds of outer margin, running obliquely inward to the end of the cell; lines indicated only by a row of white points, the inner waved,

the outer reaching costa before apex. Hind wing uniform dark brown, the male stigma large, still darker brown, fringe pale at the tips. panse 47 mm.

One male, Colombia (W. E. Pratt, collector, collection of W. Schaus).

Type.—No. 11355, U. S. National Museum.

Allied to H. violascens Guen., but the fore wings darker and the hind wings dark brown instead of whitish. Also resembles H. singula Guen., but the shading of the fore wing differs.

#### Hemiceras pernubila, n. sp.

Base of antennæ white; head and thorax purplish brown; abdomen similar above, yellowish below, with a little ventral purplish shading. Fore wing shining purplish brown, the lines a shade paler than the ground color, crenulate, indicated by black points on the veins, the obsolete scallops filled in with bronzy ochraceous, the inner curved, indented on the folds, the outer reaching costa before apex; a rounded clouded blackish discal mark, somewhat trilobate; a blackish cloud in the subterminal space, scarcely defining the subterminal line. wing brown, slightly whitish between the veins toward base, the male stigma large, dark brown, the fringe white. Expanse 38 to 45 mm.

Six males, one female, Cordoba, Mexico (R. Müller, No. 339); Jalapa, Mexico (W. Schaus); Costa Rica; Chiriqui, Panama (W. Schaus); Merida, Venezuela (S. Briceno); Zamora, Ecuador (P. Dognin).

Type.—No. 11356, U. S. National Museum.

Allied to H. nubilata Schaus, H. subochraceum Walk., and H. lotula Guen.; the ground color is less diversified than in nubilata and the pale color of the lines less extended, while these characters are more developed than in subochraceum or lotula. It may eventuate that there are too many names in this group, but, as they stand, this species seems as well defined as the others.

## Hemiceras soso, n. sp.

Head white on the vertex, collar and thorax dark purplish, abdomen purplish brown above, whitish below. Fore wing shining brassy testaceous, irrorate with blackish, especially obliquely in the median space; lines slender, black, crenulate, dotted on the veins, the inner curved, angularly waved on the veins, the outer rather sharply dentate between the veins, both shaded with clearer testaceous away from the median space; discal mark large, oval, blackish, paler in the middle, subannular; a blackish shade in the subterminal space indistinctly forming a row of large rounded spots, the subterminal line not defined. Hind wing whitish, with a little brown shading on margin and above tornus, the male stigma distinct, dark brown. Expanse 40 mm.

One male, Orizaba, Mexico (R. Müller, No. 1293).

Type.—No. 11357, U. S. National Museum. Allied to H. pagana Schaus, but the discal mark much less contrasted, while the lines are more continuous and distinct.

#### Hemiceras muscosa Schaus.

In a series of specimens the whitish purple irrorations of the type are gradually evanescent, till in the last they can scarcely be distinguished. The type is from Colombia. Others are before me from Brazil and Venezuela, all with less purplish than in the type.

## Hemiceras evanescens, n. sp.

Vertex largely white, collar and thorax purplish brown, abdomen grayer above, yellowish below, with a slight ventral purplish tint. Fore wing shining purplish brown, rather dark, uniform; lines crenulate, subobsolete, indicated by blackish dots on the veins, the inner gently curved, with a slight bronzy ochraceous edging towards the base, outer oblique, reaching costa before apex, distinct below the submedian fold and edged within the black dots by a little white powdering and white dots on the veins; discal mark a faint dark rounded cloud; a large indeterminate dark shading on the outer margin reaching up centrally to the outer line. Hind wing dark brown. Expanse 44 mm.

One female, Tabernilla, Canal Zone, Panama (A. Busck).

Type.—No. 11358, U. S. National Museum.

Allied to H. muscosa Schaus, but without a tooth on the anal angle of the fore wings, the subbasal tooth also being slight. There is no male, so the generic reference may possibly be in error.

# Hemiceras cotto, n. sp.

Head with a few whitish hairs, the collar and thorax purplish brown; abdomen grayer brown dorsally, the venter yellowish. Fore wing broad, trigonate, the teeth at anal angle and near base of inner margin strongly developed; color purplish brown, rather pale, marked by two bronzy shades, one in lower part of median space, crossing the outer line, the other extending from just beyond the discal mark to outer margin above tornus; a similar fainter shade defines the subterminal line above; lines slender, blackish, without pale edges, the inner strongly angled inwardly on both folds, the outer crenulate dentate, reaching costa before apex; discal mark a distinct, rounded blackish cloud. Hind wing brown shaded, paler toward the base, the male stigma dark brown, not contrasted, the fringe whitish. Expanse 34 mm.

One male, Orizaba, Mexico (W. Schaus). Type.—No. 11359, U. S. National Museum.

The following table may assist in separating the species of Hemiceras at present described. H. obliquicola Walker, H. pulverula Guenée, H. buckleyi Druce, and H. egregia Dognin are not included, as there exist no figures and the several descriptions are not sufficiently detailed to enable me to place the species in the table. The species not referred to in Mr. Schaus's revision of the Notodontidæ were published in the Transactions of the American Entomological Society, Volume XXX, pp. 147-148, 1904.

Epicoria gemina Walker is referred to Hemiceras by Mr. Schaus; but as Walker states that the male antennæ are setose, it would seem better placed in another genus. I have no speci-

men certainly identified.

TABLE OF THE SPECIES OF HEMICERAS GUENÉE.

Fore wings with the lines rigid, at least the outer one.

Three lines present, subbasal, inner, and outer.

Inner line marked by a large white patch in cell,

gortynoides Schaus.

No white spot in the cell.

Wing variegated in light and dark shades....plusiata Felder. Ground color nearly uniform.

Color "pale moss-rose," discal spot large, reddish,

pogoda Dognin.

Color light brown to gray.

Subterminal line whitish, dentate, defined by an outer pale shade .....jejuna Schaus. Subterminal line not defined, or if faintly so, by black.

Darker, somewhat bronzed and variegated by lighter purplish patches ......beata Schaus. Paler, scarcely bronzed, the light variegations not

Color brownish gray, the hind wings tinged with brown .....indistans Guenée. Color ashen, the hind wings tinged with fuscous.

echo Dvar.

Color dark reddish or bronzy brown.

Basal and inner lines straight.

Outer line followed by a diffused pale gray shade, satelles Schaus.

Outer line not followed by a pale shade. plana Butler. Basal and inner lines coarsely wavy....striolata Butler.

Two lines present, the subbasal one obsolete.

Outer line straight in its course.

Outer line terminating close to the apex on costa. The inner line straight.

Under side of the thorax black......affinis Druce. Under side of the thorax pale.

Discal dots two, oblique, the upper sometimes small or obsolete, the lower then small and round.

Collar dark brown, discolorous, with pale thorax. Fore wing dark brown, lines very distinct, of three colors .....tricolora Dyar. Fore wing brownish clay-color, lines distinct. narrow, three-colored....maronita Schaus, Pale straw-color, finely irrorate, lines faint, fine, two-colored.....ochrospila Dvar.

Collar concolorous with the thorax.

Hind wings of the male without a stigma on margin ......linea Guenée.

Hind wings of the male with a stigma.

Costa of fore wing concolorous.

Fore wing purplish brown; hind wing largely whitish over disk,

cavenennsis Schaus.

Fore wing bronzy brown; hind wing all brown.

Inner line distinct.

Lines unaccompanied by white points; male stigma concolorous or paler than ground,

bilinea Schaus.

Lines accompanied by white points; male stigma much darker than wing....calaonis Dyar. Inner line very faint. stubida Schaus. Costa of fore wing narrowly whitish on the edge and beneath....kearfotti Dyar.

Discal dot single, a large rounded spot.

Collar dark brown, discolorous; male with a stigma.

Fore wing straw-color; discal spot large, round, brown-black, contrasted.. lissa Druce. Fore wing brown, grayish irrorate.

Discal spot round, blackish; hind wing brown; stigma dark....unimacula Dyar. Discal spot obsolescent; hind wing pale straw-color, stigma pale,

leucospila Walker. Collar concolorous with the thorax; male without stigma.....astigma Dyar.

Discal dot an oblique linear bar.

Hind wings of the male with a stigma.

Fore wing gray powdery, the outer line white, vecina Schaus.

Fore wing brown, the outer line brown to a purplish apex ......colombia Dyar.

Hind wing of the male without a stigma.

Brassy yellow, with broad streaks on the veins, striata Schaus.

Brown, varied, veins narrowly brown lined, cadmia Guenée.

The inner line flexuous or not reaching costa.

Vertex gray-white; wing concolorous.

Fore wing brownish ocherous; hind wing whitish, the stigma contrasted.....aroensis Schaus. Fore wing dark bronzy brown.

Legs of male densely woolly.....manora Schaus.

Legs of male smoothly scaled.laurentina Schaus.

Vertex purplish; costa broadly bronzy-yellow,

flava Schaus.

Outer line terminating on costa remote from apex.

Lines subparallel, the subterminal a distinct straight line, ruizi Dognin.

Lines divergent, the subterminal obsolescent.

Discal dots separated, oblique.

Hind wing brown, the male stigma not contrasted.

Subterminal line indicated, preceded by indistinct dark shading especially at veins 2 to 5 and on inner margin beyond outer line,

indigna Schaus.

Hind wing whitish, the male stigma dark brown, strongly contrasted ......buscki Dyar.

Discal dots joined into a single patch.

Outer line flexuous, crenulate, fine but continuous, moresca Schaus.

Outer line more or less incurved below.

Outer line not ending on costa close to apex.

Two dark discal dots, obliquely placed.

Pale straw-color, inner line flexuous, obsolete,

serana Schaus.

Fore wing brown; inner line like the outer one. Line pale, with darker inner edge.

Larger, costa with a dark brown shade,

modesta Butler.

Smaller; costa without such a shade,

transducta Walker.

Discal dots joined in an irregular bar....postica Maassen. A vague discal cloud; no tooth on internal margin,

barina Guenée.

Outer line flexuous, running to costa near apex.

hind wing ......albulana Druce.

Outer line gently outcurved, with an angle below costa.

Not very dark brown, the inner line undulate.

Outer line straight, with a white point at the angulation; antennæ of female simple......anguilinea Schaus. Outer line wavy flexuous but distinct, no white point at the angle; antennæ of female pectinated,

commentica Schaus.

Fore wings with the lines finely crenulate, dotted, or obsolete.

Outer line bent at an angle below costa.

Large, the wing truncate, discal mark a large ellipse,

truncata Schaus.

Small, the wing normal, discal dot an oblique cloud,

undilinea Schaus.

Outer line straight, not bent at an angle, or obsolete. Ground of fore wing of two colors, contrasting.

Metallic olivaceous and purplish.

Costal area contrastingly pale.

vinicosta Guenée.

Costal area essentially concolorous.

Basal area contrastingly pale yellowish.

Median area diffused purplish.....maona Cramer.

Median area coppery brown, sharply limited at discal
mark ......splendens Möschler.

Basal area concolorous.

Wings sharply trigonate, purplish; hind wing white on disk .....sabis Guenée. Wings normal, brownish; hind wing brown shaded.

dcornata Walker; losa Druce.

Yellowish and lilaceous or brownish lilaceous.

Costa broadly pale yellow, inner area lilacine,

pallidula Guenée.

Costa essentially concolorous

Lilacine purplish, a large oval vellowish mark in the cell .....ovalis Schaus.

Without such a marking.

A stigma on the hind wing of the male.

Outer line dentate crenulate; wing showing a few small patches of vellowish between extensive cloudings of purplish brown,

nebulosa Schaus.

Outer line crenulate dotted; wing even more suffused ......nubilata Schaus.

No stigma on hind wing of male.

Outer line crenulate dotted.

Ground largely dark yellow; dots on the lines small, absent on the inner line,

flavescens Schaus.

Ground largely dark brown; dots on both lines large and distinct......punctata Dognin.

Dark purple-brown, with metallic, whitish, violaceous powdering or greenish metallic spotting.

A stigma on the hind wing of the male.

Whole wing except the outer margin and a ray from the cell shaded with metallic lilacine; hind wing white, with black stigma......carmelita Maassen.

Wing dark, with metallic green marks on discal spots and about the lines......constellata Dognin.

No stigma on the hind wing of the male.

Costal edge of fore wing white....sparsipennis Walker. Costal edge of the fore wing brown.

Marginal and discal dark shades united; hind wing largely whitish......muscosa Schaus. Marginal and discal dark shades separated; hind wing dark brown.....evanescens Dyar.

Ground of fore wing essentially uniform, at most clouded.

Fore wing bronzy, costa purplish discolorous to vein 12; hind wing white ......poulsoni Schaus. Fore wing without discolorous costal edge.

Hind wing of male without a stigma.

No distinct tooth on anal angle of fore wing,

brunnea Schaus.

A distinct tooth on anal angle of fore wing,

muscosa Schaus.

Hind wing of male with a stigma.

Costal edge white.

More reddish brown; hind wing largely white on the disk between the veins in male.

conspirata Schaus.

Outer line linear, black, contrasted, rather coarsely denticulate between the veins.

Hind wing brown; male stigma large.

punctilla Schaus.

Outer line dotted, finely crenulate or obsolete.

Discal spot large, oval, blackish, contrasted,

pagana Schaus.

Discal spot diffused or obsolete.

Fore wing pale gray ......alba Walker. Fore wing dark ocherous to brown.

Middle space of fore wing darker, blackish, nigrescens Schaus.

Costa blackish to vein 12.nigricosta Schaus. Wing uniformly colored.

A distinct tooth on anal angle of fore wing.

Very dark umber brown, with blackish shading.

Marginal shade disconnected from discal dot; hind wing dark fuscous......singula Guenée. Marginal shade broadly joined to discal dot.

Hind wing largely white between the veins in male,

violascens Guenée.

Hind wing dark fuscous, singuloides Dyar.

Dark reddish brown, basal and terminal areas more bronzy, shining, sericita Schaus.

Brown to ocherous, basal space concolorous.

Larger, the wing uniform,

micans Schaus.

Smaller, the costal area paler shaded.

Pale, the male stigma small, reddish brown,

rufescens Walker.

Darker, the male stigma dark brown.

Inner line continuous, curved,

metastigma Walker. Inner line finely angled or represented by dots,

walkeri Schaus.

No distinct tooth on anal angle of fore wing.

Hind wing white, male stigma brown, contrasted.

Wing smooth and uniform, reddish brown, the lines faint.

velva Schaus.

Wing varied, brassy luteous, the lines distinct.....soso Dyar.

Hind wing more or less brown shaded, the male stigma dark brown

Fore wing reddish brown, without dark shadings...quebra Schaus.

Darker brown, with less red tint.
With broad reddish-ocherous
shades bordering the lines.

These shades distinct.

nubilata Schaus.

These shades dark, obscured.

\*pernubila Dvar.

These shades absent or only faintly indicated.

Dark, very uniform (Mexico and Central America).

subochraceum Walker.

Dark, the lines more relieved; hind wing paler (Venezuela to Brazil).

lotula Guenée.

Smaller, more tan-colored, lines well relieved and with slight bordering shades....tulola Schaus.

## Hippia vittipalpis Walker.

This species was described from Santo Domingo (1857); insularis Grote from Cuba (1867); packardii Morrison from Texas (1875); lignosa Möschler from Jamaica (1886), and mandela Druce from Mexico (1887). Mr. Schaus placed lignosa and mandela as synonyms of insularis and let the others stand; but I am unable to distinguish any of them specifically from the material before me, unless it be mandela, which is larger and darker, the markings in the male less contrasted. I have, however, but one male of mandela and am inclined to let all the names fall into the synonymy of vittipalpis Walker. A larger series and knowledge of the life histories may possibly show distinctions, but I think it will not affect the synonymy of our North American species, which should be known as vittipalpis.

# Hippia schausi, n. sp.

Antennæ of the male strongly roughened with scales on the basal half above; head and collar yellowish ochraceous mixed with brown; thorax and abdomen dark gray, the abdomen with a dark basal tuft and pale below. Fore wing dark gray, shaded with blackish at base on costa and in median space and terminally above tornus; a white band stained with brown runs along the costal edge from apex to middle of cell where it leaves the costa and curves to inner margin at base, becoming more diffused and stained with brown, relieving the crenulate curved inner line, which follows it outwardly obliquely, finally curving inward and cutting it on subcostal vein; discal mark small, semilunate, in a dull brown cloud followed by a small white cusp joined to costal band; outer line obsolete, defined by the termination of the dark shade in median space, a row of white points on the veins; subterminal line indicated, followed by a row of black points in brownish annuli; a row of whitish points in the fringe. Hind wing blackish brown, with yellowish white fringe. Expanse 42 to 44 mm.

One male, one female, St. Laurent, Maroni River, French Guiana (W. Schaus).

Type.—No. 11363, U. S. National Museum.

Allied to *H. matheis* Schaus, from which it differs in having the white costal band diffusedly produced to the base of the wing.

#### Arachia fascis Schaus.

This species is not a synonym of A. combusta H.-S., as referred in Mr. Schaus's paper on the Notodontidæ. It is stated to be described from two males (Ent. Amer., VI, p. 47, 1890), but both the types are before me and are females. The antennæ have very long pectinations, while in combusta H.-S. the antennæ of the female are simple. Two males before me, obtained from Aroa, Venezuela and Omai, British Guiana, by Mr. Schaus bear the name A. meridionalis Schaus, which must be considered a synonym of fascis. Mr. Schaus's remarks (Tr. Am. Ent. Soc., xxx, p. 145, 1904) imply that he knew both sexes of both fascis and meridionalis, but such does not appear in his collection, and I consider them sexes of one species.

## Urgedra, n. gen.

Palpi porrect, exceeding the front, third joint short; antennæ of the male with long pectinations; legs with the tibiæ smoothly scaled; fore wings broadly trigonate, no tuft on the inner margin, the outer margin entire; vein 5 from the middle of the discocellulars, 6 from the long narrow areole at its basal third, 7 from the end of the areole, 8 to 10 stalked; hind wing rounded, veins 3 and 4 separated, 6 and 7 long-stalked, 8 diverging from the cell before the middle.

Type.—Urgedra striata Druce = Heterocampa striata Druce

(Ann. Mag. Nat. Hist. (7), XVII, p. 410, 1906).

I have before me two specimens from Carabaya, Peru, which I have identified as Druce's species, as they agree well with the description. They belong, however, to a new genus.

## Chadisra torresi Dognin.

Xylophasia torresi Dognin, Le Naturaliste, 1889, p. 82. Heterocampa perilleus Schaus, Proc. Zool. Soc. Lond., 1892, p. 335.

The type of *perilleus* before me is a female, not a male. I cannot distinguish it specifically from Dognin's figure of *torresi*. The figure has somewhat darker hind wings, but there is practically no difference in the markings. *Perilleus* was described from Brazil, *torresi* from Ecuador. When the male is known positively the species may be found referable to another genus, although I have tentatively selected as the male a specimen from French Guiana that was under the label "*Blera arecosa* Druce."

#### Chadisra cacobule, n. sp.

Head yellowish brown on the vertex, collar dark brown, thorax and abdomen pale gray. Fore wing pale gray, shining; basal space clear grav, subbasal space filled in with dark brown shading, limited by the inner line, which is narrow, black, bent in below cell and outward below vein 1, subdislocated on the veins; a median gray line, dentate on the veins, preceded by a gray shade in the cell, in which the yellowishwhite discal bar is relieved, bicusped, preceded by two small yellowishwhite dots; outer line slender, in part black, in part gray, bent outward at vein 4, running inward along vein 3, subdislocated on the veins, flexuous between veins I and submedian fold, the fold and vein 3. veins 5 and 7, black and followed by a blackish brown cloud to the subterminal line; subterminal line distinct, black-brown, continuous and straight, curving inward at vein 2 and ending in a double spot; terminal line slender, black, forming angular semicircles between the veins. Hind wing whitish on disk, gray-shaded on the margin, the veins in that part dark; an angular black mark relieved by white above anal angle. Fringe white. Expanse 47 mm.

One female, Tabernilla, Canal Zone, Panama (A. Busck).

Type.—No. 11364, U. S. National Museum.
Allied to C. torresi Dognin, but the subterminal line is straight and continuous and the ground color lacks the olive tint. The species is no doubt congeneric with torresi, and will

await a male for confirmation of the generic position.

The genus Blera Walker will, I think, prove to be a synonym of Chadisra Walker. Mr. Schaus separates them by the difference in wing shape, but this is no doubt only a sexual difference, as all the specimens of Blera before me are males except two, and these do not possess the required shape, but would fall into Chadisra, if put through the table without their males. Correspondingly many of the Chadisra before me are females (although in part wrongly described as males), and those of which there are males have the wings more pointed than in females. The difference is scarcely fundamental enough to hold both genera. Moreover, there is considerable dimorphism between the sexes, apparently, and I should not be surprised if Chadisra cacobule, described above, should prove to be the female of Blera arccosa Druce, described from Panama.

## Chadisra (Blera) hymen, n. sp.

Head, collar, and anterior half of disk of thorax dark brown mixed with ochraceous brown; patagia and posterior half of thorax silvery gray, mixed with a little brown; basal abdominal tuft gray, abdomen dark brown dorsally except the posterior half which is gray, mixed

with brown; fore wing long and narrow, pale silvery gray, the subbasal space filled in with brown on the costal half, defined by two lines, broken-dislocated on the veins; three brown spots on the costa beyond; discal mark lunate, whiter than the ground; outer line represented by two black cusps between veins 4 and 6 and a wavy line below vein 3 to margin, a strong black dash below vein 3 continuing this line outwardly; beyond the outer line, except at the break between veins 3 and 4, filled in with brown to the faint white subterminal line; a brown spot between veins 4 and 5 near the margin; terminal line black, slender, forming angular cusps between the veins. Hind wing whitish over the disk, apex and outer margin brown shaded, especially on the veins; a small, double, angular white mark at anal angle. Expanse 45 mm.

One male, Omai, British Guiana (collection of Wm. Schaus).

Type.—No. 11365, U. S. National Museum.

#### Chadisra (Blera) infanta, n. sp.

Head yellowish brown, collar dark brown, disk of thorax narrowly yellowish brown in the middle, else silvery white, slightly tinted with gray; abdomen brown dorsally on the basal two-thirds, the terminal segments gray-white, the anal tuft mixed with brown; fore wing silvery gray-white, a costal, brown triangular spot in the subbasal space, edged by black lines which are obsolete below; discal mark white, faintly relieved; three brown angular marks on costal edge; outer line nearly absent, represented by two black marks between veins 4 and 6 and a black distinct L-shaped mark below vein 3, its long arm paralleling the vein, filled in below with brown, also a brown band from vein 4 to costa just beyond the remains of the outer line, edged with diffused black cusps next to the white, faintly relieved subterminal line; terminal line slender, black, forming arcs between the veins. Hind wing whitish, shaded with brown except in an outer mesial band and the fringe; an obscure angled mark at anal angle. Expanse 45 mm.

Two males, Carabaya, Peru (collection of Wm. Schaus). *Type.*—No. 11366, U. S. National Museum.

# Chadisra malocampoides, n. sp.

Head and thorax olive-brown, the patagia olive-green, probably all olive-green when fresh; abdomen dark gray, the tip olivaceous brown (green); fore wing grayish olive-green, a rounded elliptical clear spot of this color on inner margin at base, at anal angle, and on costa just before apex, the rest of the wing darker tinted, the veins lined with powdery blackish; lines faint, blackish, crenulate, the inner geminate, median and outer single, the outer with black points on the veins followed by light points on costal half; a round, punctiform, black discal dot, in a blackish brown pulverulent cloud; subterminal line indicated,

dark; a row of terminal, rounded light-olive spots, the fringe dark at ends of veins. Hind wing uniform dark brown, the fringe a shade lighter. Expanse 40 mm.

One male, Callao, Peru (Mrs. M. J. Pusey). *Type*.—No. 11367, U. S. National Museum.

The following table will separate the species the males of which belong to Blera Walker. The species referred to Chadisra proper, namely zabena Schaus, batama Schaus, zabenilla Dognin, multifida Schaus, cucullioides Schaus, and malocampoides Dyar, are omitted from the table, as they have an entirely different facies and could not possibly be confused with these. Chadisra verona Schaus and Blera pernuda Druce may be sexes of one species. Chadisra cacobule Dyar is omitted, as there is no male, and the table is founded on that sex; as remarked above, it may be the female of Blera arecosa Druce.

TABLE OF THE MALES OF CHADISRA, SECTION BLERA.

Ground color of fore wing white or pale gray over median space.

Outer line continuous, followed by unbroken shadings or parallel lines.

Outer line not followed by shadings, but by a brown line,

nitida Schaus

Outer line followed by brown shadings.

Outer line slightly bent outward below...politia Cramer.<sup>a</sup>
Outer line much bent outward below...ceruroides Walker.
Outer line, or a least its following shade, broken into separate

patches.

Following shade brown, edged by a row of rounded black spots, tenuis Schaus.

Following shade with its outer edge not forming rounded black spots.

A distinct black bar below vein 3, forming an angled mark with a fragment of the outer line.

Brown shadings reaching to inner margin. hymen Dyar.

Inner margin broadly silvery gray.....infanta Dyar.
sh below yein 3 indistinct not inited to a fragment of

Dash below vein 3 indistinct, not joined to a fragment of the outer line.

Subbasal space well filled in with brown.arecosa Druce. Subbasal space filled in only on costal half,

torresi Dognin.

<sup>a</sup> Mr. Schaus proposed the name *rogenhoferi* for Felder's figure of *politia* (not Cramer), but I am unable to distinguish it. On the other hand, *ceruroides* Walker seems separable, although placed as a synonym by Mr. Schaus.

Outer line obsolete, represented by a triangular costal patch.

Fore wing white; hind wing white.....pernuda Druce.

Fore wing olive-gray, basal space white; hind wing brown.

varona Schaus.

Ground suffused with dark over the median space, the terminal space discolorous, white.

#### Psilacron Felder.

Psilacron Felder, Reise Novara, pl. 97, fig. 22, 1874. Hardingia Schaus, Trans. Ent. Soc. Lond., 1901, p. 293.

There is an error in Mr. Schaus's characterization of Psilacron; it is stated that vein 7 arises from the areole, whereas it is really shortly stalked, in one of the specimens before me; in the other it arises from the base of the stalk. This is the only difference between Psilacron and Hardingia, and, as it is inconstant, I unite the genera.

## Psilacron plagimargo, n. sp.

Antennæ simple; head and thorax olive-brown, intermixed with white hairs; abdomen olive-brown, shading to gray posteriorly. Fore wing olive-brown, shaded with purplish over inner margin and subterminal area, the veins outwardly lined in black; ordinary lines obsolete, except the median line, which is distinct, black, and bent at right angles on vein 4; a heavy black bar on submedian fold from base nearly to middle, edging the purple shade on inner margin; a rounded black mark on vein 2, touching the margin on the vein, followed by a white patch; another white patch above vein 4 on the margin; fringe spotted with blackish at the ends of the veins. Hind wing pale purplish, a faint whitish mesial shade; fringe spotted with blackish at the ends of the veins. Expanse 48 mm.

One female, Orizaba, Mexico (R. Müller, No. 970). *Type.*—No. 11371, U. S. National Museum.

# Psilacron agcistrum, n. sp.

Head and thorax olive-green, intermixed with purplish brown. Fore wing light purplish, the basal space darker; three small patches of olive green near the middle of the wing, one above vein 1, one at the origin of veins 3-4, and one below the costa at the outer third; inner line geminate, crenulate, purplish brown; discal mark faint, linear, lunate, dark; outer line crenulate, geminate, broken between veins 2-3 and 4-5. filled with white, the upper segment forming a hook; median

<sup>b</sup> This is described as a male, but the character of the markings causes me to suspect that an error may possibly have been made.

shade faint, strongly arcuate over cell but not angled; three white dots on vein I in median space; a row of subterminal rounded purplish spots, absent where the outer line is broken; a white spot between veins 3-4; an oblique white apical dash. Hind wing pale fuscous, reddish along the inner margin, the fringe whitish. Abdomen with a basal tuft like the thorax, the rest nearly black dorsally, whitish beneath. Wings beneath entirely testaceous whitish, the costa black shaded towards the base. Expanse 45 mm.

Two males, Carabaya, Peru (collection of Wm. Schaus).

Type.—No. 11372, U. S. National Museum.

The specimens were labelled *Psilacron luteovirens* Feld., but differ from that in many details.

## Pseudodryas cosmipennis, n. sp.

Head, collar, and basal abdominal tuft olive-green; abdomen dark gray dorsally, the tip pale reddish, with two blackish marks. Fore wing with ground color soiled white shaded with olive-green along submedian fold centrally, on median vein, origin of veins 3-4, and on subcostal veins beyond cell, the whole ground sparsely irrorated with red-brown; inner line geminate, brown, crenulate, clouded with brown on costa to base; median line brown, bent at right angles on vein 3, crossing the brown lunate discal mark; outer line geminate, crenulate, brown; four brown specks subapically; a dark brown oblique shade from outer margin below apex inward to the outer line at vein 4; three submarginal brown spots below in the interspaces; fringe pale. Hind wing broadly red on the inner margin, shaded with fuscous, most strongly so beyond the faint pale outer mesial shade; fringe whitish. Expanse 42 mm. A second specimen has the ground shaded throughout with pale purple.

Two males, Carabaya, Peru (collection of Wm. Schaus).

Type.—No. 11373, U. S. National Museum.

The specimens were placed under *Psilacron luteovirens* Feld. in the collection, but they differ in venation, and fall by Mr. Schaus's table in Möschler's genus Pseudodryas, of which I have otherwise no specimens.

#### A NEW BARYTETTIX FROM ARIZONA.

By A. N. CAUDELL.

Some months ago, while transferring some ancient and discolored Orthoptera, I found, mixed with other unnamed material, a single female specimen that I at once recognized as a species unknown to our fauna. The specimen was without