

XLIV.—*New Species of Heterocera from Costa Rica.*—II.  
By W. SCHAUS, F.Z.S.

*Arctiadæ.*

*Aphyle intorta*, sp. n.

♀. Palpi red. Head and thorax brownish red. Abdomen crimson above, buff underneath. Legs roseate and buff; tarsi buff. Primaries lilacine red; a faint antemedial and postmedial dark line from below cell to inner margin; the outer margin pale yellow, incurved from apex to just below vein 6, then inwardly straight and perpendicular to tornus, separated from the dark portion of the wing below vein 6 by a purplish line outwardly edged with roseate; subterminal red points on veins 3, 4, and 5. Secondaries crimson. Underneath roseate, without the dark line separating the two colours on primaries.

Expanse 39 mm.

*Hab.* Sixola River; Sept.

Closely allied to *A. incarnata*, Wlk.

*Automolis vampa*, sp. n.

Body ochreous; two black points posteriorly on thorax. Legs streaked light and dark grey. Wings ochreous. Primaries: a subbasal dark point below cell; inner margin medially lilacine, with a black streak; basal half of costal margin and end of cell lilacine, streaked with black; black streaks from cell reaching outer margin between veins 2 and 3, 4 and 5, and 5 and 6; shorter streaks above veins 3, 6, and 7, these streaks more or less edged with lilacine. Underneath: primaries with a dark space at end of cell and streaks above veins 2-4; the costa lilacine.

Expanse 35 mm.

*Hab.* Sixola River; Sept.

Very closely allied to *A. polystria*, Schs.

*Melese sixola*, sp. n.

Antennæ long, pectinated. Palpi roseate, salmon-colour in front. Head salmon-colour; a grey spot on frons. Tegula and patagia grey, edged with roseate. Abdomen roseate above, buff underneath. Legs roseate and grey; tarsi whitish. Primaries grey, thinly irrorated with darker scales; a crimson streak on subcostal vein; a subbasal greyish streak



below cell, followed by a small red and black spot; a small red spot in cell, partly edged with black scales; base of inner margin roseate, followed by an antemedial large yellow-white spot, edged with red and divided by a red streak on submedian; two small similar spots medially above and below the submedian; a small red spot between veins 2 and 3; a postmedial whitish streak from vein 5 to costa, edged with red. Secondaries roseate.

Expanse 25 mm.

*Hab.* Sixola River; Sept.

*Melese sixola frater*, subsp. n.

Like *Melese sixola*, but with only a small crimson postmedial spot between veins 5 and 6, and no spot between veins 2 and 3.

Expanse 23 mm.

*Hab.* Sixola River; Sept.

*Melese quadrina*, sp. n.

Antennæ fasciculate. Palpi roseate, the second and third joints grey in front. Head, collar, and thorax greyish brown, the collar with a few red hairs posteriorly. Abdomen roseate above, buff underneath. Legs: tarsi whitish; tibiae roseate, streaked with grey. Primaries light brown; a small subbasal black spot below cell; a black quadrate spot in middle of cell; a small antemedial white spot edged with black resting on submedian vein; a postmedial white spot on costa, and below it between veins 5 and 7 two white points edged with black; from end of cell to middle of inner margin four indistinct dark brown spots. Secondaries roseate, below and beyond cell slightly hyaline whitish.

Expanse 31 mm.

*Hab.* Juan Vinas; Jan., Nov.

*Ochrodota marina*, sp. n.

♂. Palpi brown, tipped with ochreous. Frons light brown, vertex whitish. Tegula and patagia white, edged with brown. Thorax posteriorly dark brown. Abdomen yellow; a lateral row of black spots and a subdorsal black spot on last segment. Primaries dark brown, darkest along inner margin, medially below vein 2, and beyond cell; base, antemedial space above submedian, cell to near end, and costal margin to end of cell whitish, with reddish-brown annular and irregular lines; apical portion above vein 6 also



whitish, with similar lines. Secondaries yellow; the outer margin black, narrowing at anal angle and also narrower at apex. Underneath similar, but paler.

Expanse 33 mm.

*Hab.* Sixola River; March.

*Pachydota josefina*, sp. n.

♂. Head, thorax, legs, and abdomen below dark brown; the vertex creamy white; the coxæ orange. Abdomen above orange, with a large dorsal black space on second and third segments, followed by three black subdorsal spots; lateral black marks adjoining the dark underside. Primaries lilacine brown, with the usual darker transverse streaks, the post-medial bifurcating below vein 3 and containing the pale discocellular; the subterminal coalescing with the dark marginal shades below vein 3. Secondaries brown; the discal area whitish. Underneath, the primaries are brown, with darker veins; the secondaries brownish white, with dark veins; a brown costa and apex.

Expanse 55 mm.

*Hab.* Juan Vinas.

*Pachydota inermis*, sp. n.

♂. Head and thorax black-brown; vertex creamy white; fore coxæ orange. Abdomen above orange; first segment black; second and third with black subdorsal tufts, leaving only large yellow lateral spots; the other segments with fine transverse black lines posteriorly; underneath black, with lateral yellow tufts at base, anal hairs black. Primaries lilacine brown, with dark markings, the base dark; an ante-medial band; the postmedial enclosing a light spot at end of cell and bifurcating below vein 3, where the outer portion extends to outer margin; an oblique subapical wavy line from costa to vein 3; an apical irregular patch. Secondaries: the basal area to beyond cell dirty white; the veins dark; the outer margin broadly brown. Underneath: secondaries dirty white, the costa tinged with lilacine; the subcostal and discocellular dark brown; the other veins light brown.

Expanse, ♂ 47, ♀ 49 mm.

*Hab.* Sixola River, Tuis; May.

*Pachydota nitens*, sp. n.

♂. Body blackish brown; vertex creamy white; all the coxæ yellow; the abdomen with lateral yellow spots, becoming



larger towards last segment, and only separated by a black subdorsal line on the two segments before the last. Primaries shining lilacine brown, with the dark lines as in *P. inermis*, but the outer portion of postmedial continues to inner margin near tornus. Secondaries black, with a semi-hyaline white space at base, below cell, and slightly in cell. Wings below black, with only the semihyaline space on secondaries.

Expanse, ♂, 50 mm.

The female differs in having the abdomen orange dorsally, except a black subdorsal space on two basal segments, and fine black transverse lines on the two following segments. The secondaries underneath immediately distinguish this species from the female of *P. inermis*.

Expanse, ♀, 52 mm.

*Hab.* Juan Vinas.

*Pachydota nitens*, ab. *roseitincta*, ab. nov.

♂. Similar to *P. nitens*, but with the dorsal black band broader, leaving five lateral orange spots. Underneath, the secondaries have the hyaline space broadly edged above and below with roseate, which shows through on the upper surface.

Expanse 50 mm.

*Hab.* Tuis; May.

*Opharus roseistriga*, sp. n.

Palpi dark brown, the second segment shaded with buff. Frons dark brown. Vertex and patagia dorsally light buff. Collar roseate, shaded with brown posteriorly. Patagiæ outwardly dark brown. A roseate spot on thorax posteriorly. Abdomen blackish brown; a lateral roseate streak extending dorsally on last segment; anal hairs pale buff. Legs brown, the tarsi tinged with buff. Primaries dark brown, with a vague darker shade at end of cell; the costal margin brownish buff. Secondaries dark brown, slightly hyaline in, below, and beyond cell.

Expanse 43 mm.

*Hab.* Juan Vinas; June.

Allied to *O. linus*, Schs.

*Agoræa inconspicua*, sp. n.

Head, collar, and anal segments orange; some brown on frons. Palpi, thorax, and abdomen brown, the outer portion



of abdomen dorsally darker. Wings brown; the discal area of secondaries more thinly scaled.

Expanse 30 mm.

*Hab.* Juan Vinas; February, May.

*Brycea carpintera*, sp. n.

♂. Body black. Wings black, except the basal half of fore wings, which is orange, with a narrow black space at base and a short basal streak on costa; the basal half of costal margin also orange. Underneath similar.

Expanse 25 mm.

*Hab.* Tres Rios, on the Carpintera Mountain; Sept.

*Heliactinidia sitia*, sp. n.

Palpi orange, tipped with grey. Head orange. Antennæ black. Collar and patagia grey, the latter with a darker streak inwardly. Thorax and abdomen orange, with a subdorsal black line. Legs dark grey outwardly, yellowish inwardly. Primaries olive-grey, the veins yellowish; a pale shade from costa above discocellular to inner margin near tornus; a few orange scales on this shade at and above discocellulars. Secondaries orange.

Expanse, ♂ 38, ♀ 40 mm.

*Hab.* Sixola River; Tuis, Juan Vinas, El Sitio.

Closely allied to *H. flavivena*, Dogn.

*Diospage carilla*, sp. n.

♀. Legs black, irrorated with metallic green. Head, collar, and thorax black, with metallic-green spots; frons metallic green; patagia with only a short green streak inwardly. Abdomen black; a subdorsal dark green streak, lateral green transverse spots, obsolescent on segments 5 and 6; underneath, last three segments scarlet. Wings black. Primaries: basal third dark gold-green in cell, below cell, and just under submedian vein; a broad postmedial oblique ochreous space from just below costa to below vein 2. Secondaries: basal half dark blue, with a lighter blue streak along median and one near inner margin. Underneath, the secondaries are streaked with blue at base, shortly in the cell, with two spots beyond cell.

Expanse 48 mm.

*Hab.* Carillo.

Looks very much like *Belemniastis trotschi*, Druce.



*Calidota quadripunctata*, sp. n.

Palpi and body below brown. Legs brown; the coxæ yellow. Frons dark brown. Vertex and collar buff, the former with a single black spot, the latter with two black spots. Thorax light brown. Abdomen above yellow, with a subdorsal row of black spots and a brownish tuft near base. Primaries light brown; a small black spot at end of cell and three spots beyond cell, the two spots between veins 4 and 6 much larger than the spot between 3 and 4. Secondaries pale greyish brown, the discal area thinly scaled.

Expanse 49 mm.

*Hab.* Avangarez; July.

Allied to *C. rema*, Dogn., but quite distinct.

*Euchaetes mitis*, sp. n.

Head and thorax grey; a roseate line behind head. Legs greyish brown; fore coxæ streaked with roseate. Abdomen roseate above, with subdorsal and lateral row of black spots, the ventral surface grey. Fore wings grey. Hind wings whitish in the male, dark grey in the female.

Expanse, ♂ 33, ♀ 41 mm.

*Hab.* Juan Vinas, El Sitio.

This is subsp. 2 of *Euchaetes expressa*, Edw., in the 'Catalogue of Lepidoptera Phalænæ.'

## Lymantriadæ.

*Eloria torrida*, sp. n.

Body and legs creamy white. Wings white, thinly scaled. Primaries: the costa finely dark brown; the apex and outer margin above vein 4 narrowly brown. Underneath similar, with the costa more broadly brown.

Expanse 32 mm.

*Hab.* Sixola River, Esperanza, La Florida.

*Eloria sixola*, sp. n.

Head and collar yellow. Legs streaked with dark brown and grey. Body whitish, thinly scaled; some yellow hairs on patagia. Wings white, thinly scaled, the veins more heavily scaled. Primaries: the costa finely brown. Underneath the costa of primaries narrowly, the outer margin and apex broadly brown, narrowing at tornus.

Expanse, ♂, 44-46 mm.

*Hab.* Sixola River; April.



*Eloria geometrina*, sp. n.

Palpi dark grey, orange at base. Head, collar, spots below wings, and anal tufts orange; body otherwise grey with faint whitish transverse lines posteriorly on abdominal segments. Legs brown streaked with white. Wings white, thinly scaled. Primaries: the costa narrowly, the outer and inner margins broadly dark grey; a greyish streak in cell, and a greyish diaphanous shade below cell; a broad oblique grey shade from median between veins 2 and 3 to inner margin. Secondaries: the outer margin dark grey; a grey streak from base to anal angle along the inner margin, and a short streak along vein 2 on postmedial space to outer margin.

Expanse 36 mm.

*Hab.* El Sito; May. Juan Vinas; May.

*Orgyia povera*, sp. n.

Head and thorax dark brownish grey. Abdomen brown. Primaries light brown, darker on basal half of costa and cell; a geminate faint reddish-brown line at end of cell; a vague darker antemedial shade below cell to inner margin; an indistinct and interrupted postmedial lunular line followed by darker but indistinct spots; fringe dark grey. Secondaries dark brown.

Expanse 31 mm.

*Hab.* Avangarez Mines; July.

*Orgyia costaricensis*, sp. n.

Body buff, the thorax mottled with darker scales; subdorsal tufts of dark curly scales on first and third segment of abdomen. Primaries: the basal third mottled buff and brown, limited by a slightly oblique dark brown antemedial shade, and containing an interrupted black basal line and a large ovate brown spot below the cell; the costa from antemedial to postmedial broadly creamy buff or greyish; a steel-grey medial shade from subcostal to submedian, followed at end of cell by an interrupted geminate brown line; from end of cell to postmedial the space is also filled in with steel-grey; the postmedial is outcurved beyond cell, incurved below vein 2, thick, black, lunular, followed at apex by some black and buff; the outer margin is light brown partly shaded with grey; sometimes a terminal dark line. Secondaries creamy buff, with some dark marginal shading at apex.

Expanse 29 mm.

*Hab.* Tuis; June. Juan Vinas; June.

Allied to *O. falcata*, Schs.



## Eupterotidæ.

*Apatelodes turrialba*, sp. n.

Palpi velvety black-brown. Head and thorax brownish, irrorated with grey; a black shade posteriorly on head. Abdomen lighter than thorax. Primaries grey, the lines and vein 2 black; three antemedial lines close together, the inner one oblique from costa to vein 2, then slightly lunular to inner margin, preceded by small black spots above and below submedian, the middle line faint, interrupted, the outer line very slightly curved, distinct; the two postmedial lines wide apart, oblique from costa, slightly incurved below vein 4, and between them a fine indistinct dark geminate shade; a small subterminal white spot between veins 6 and 7; fringe brown. Secondaries: the base dark grey followed by a broad medial shade still darker, angled at vein 6 and internal nervure; the outer half of wing lighter silky grey; some whitish scales at anal angle, and a blackish shade above them on inner margin. Underneath lighter grey. The primaries with the postmedial lines less distinct; the costa shaded with white; the white spot surmounted by a white streak. Secondaries: an irregular blackish medial line, followed by an indistinct dark line; the postmedial line outwardly shaded with white and much curved near anal angle.

Expanse, ♂, 52 mm.

*Hab.* Volcano Turrialba, 5800 ft.; Sept.

*Apatelodes vitrea*, sp. n.

Thorax dark violaceous brown. Abdomen above dark reddish brown. Body below and head light brown. Collar light reddish brown. Primaries dark brown tinged with blackish grey below cell and vein 4, otherwise tinged with reddish; a few whitish scales in place of antemedial line; a lunular fine lilacine subterminal line below vein 5, followed by lilacine scales; a large vitreous spot between veins 6 and 7, and a smaller one between 7 and 8; the outer margin slightly incurved above vein 6 and below vein 5. Secondaries dark reddish brown; some whitish scales and darker brown spots on inner margin. Underneath light reddish brown, the inner margin of secondaries broadly paler, and with a medial and a postmedial darker curved line, the former blackish on discocellular.

Expanse 34 mm.

*Hab.* Tuis; Sept.



*Apatelodes paratima*, sp. n.

Head and palpi brown. Thorax buff. Abdomen above: first segment dark velvety brown, other segments buff shaded with brown on last segments and with a subdorsal row of small brown spots; two lateral reddish-brown spots near base. Body underneath and tufts on legs reddish brown. Primaries buff; small antemedial, medial, and postmedial brown spots on costa; a larger triangular spot on costa before apex broadly bordered with white, which is really part of the curved whitish subterminal line, almost obsolete below vein 6; a dark point in cell; an oblique brown spot on inner margin at a third from base; the outer margin shaded with grey between veins 2 and 5. Secondaries brownish buff with a faint whitish curved outer line. Underneath: primaries buff; the costa creamy buff; a brown streak on discocellular; a grey subcostal streak; dark grey and brown shadings from cell to subterminal, which is more distinctly marked; the spot on costa before apex grey; the outer margin at apex ochreous brown. Secondaries ochreous brown, broadly shaded with white on inner margin, containing a dark basal streak and a postmedial brown patch; the discocellular dark brown; the costa white irrorated with grey; the subterminal white line straight from costa, angled between veins 3 and 4; the veins on brownish portion dark grey irrorated with reddish brown.

Expanse 32 mm.

*Hab.* Avangarez, Tuis.

Allied to *A. imparata*, Dogn.

*Olceclostera magniplaga*, sp. n.

Head and thorax lilacine grey with brown irrorations. Abdomen reddish brown; fine transverse white lines posteriorly on segments; two sublateral white spots on basal segments. Primaries lilacine grey; a short black streak at end of cell edged with lighter grey; a broad irregular antemedial darker transverse shade containing a dark point on median and submedian veins; a similar postmedial shade, broadest beyond cell, inwardly edged by a darker shade slightly outcurved beyond cell and below vein 2, and outwardly edged by an interrupted brown line much outcurved towards apex and between vein 2 and submedian; a large transparent spot subterminally between veins 5 and 6, rather elongated with straight edges, and a slight transparent dash below vein 5; the outer margin above vein 2 brown, widest between veins 4 and 5, partly edged by a lunular brown line;



a brownish streak on costa near apex. Secondaries brown, darkest on inner area; a postmedial darker brown line. Underneath light brown, with dark points at end of cell, two postmedial lines on primaries, incurved below vein 5, and on secondaries a dark medial line, and an outer finely lunular line.

Expanse, ♂, 45 mm.

*Hab.* Juan Vinas; June. El Sitio; May.

*Olceclostera nigripuncta*, sp. n.

Body lilacine grey with a few brown irrorations; a sub-lateral reddish-brown spot on first two segments crossed by two white lines. Primaries dull grey; traces of a basal and an antemedial blackish line; a medial and a postmedial brown shade, the latter outwardly curved beyond cell and above inner margin, and followed by a lunular dark line punctiform on veins; a small black spot on inner margin just before middle; a subterminal very small hyaline spot between veins 5 and 6; a minute point at end of cell; indistinct subapical lunular marks. Secondaries brown with traces of a pale outer line. Underneath the wings are greyish buff with black points at end of cell; a single outer dark line on primaries; a brown medial shade on secondaries followed by a blackish-brown punctiform lunular line.

Expanse 39 mm.

*Hab.* Juan Vinas; June, November. La Florida; July.

*Olceclostera indentata*, sp. n.

Palpi, legs, head, and thorax mottled grey and brown. Abdomen reddish brown above, irrorated with grey scales, and fine greyish transverse lines posteriorly on segments; underneath grey irrorated thinly with brown, and with sub-lateral white points, larger on two basal segments. Primaries lilacine grey, thinly irrorated with brown; the markings brown; a dot and very faint basal line; a geminate ante-medial line, the outer portion heavier, incurved in cell and below vein 2; a dark point at end of cell; the postmedial outcurved beyond cell, then lunular to inner margin followed by a series of dark points connected by a fine greyish-white lunular line; a transparent spot between veins 5 and 6, indentate on its outer side; a fine subterminal lunular line from costa to vein 3; the fringe dark brown. Secondaries brown with traces of a medial and postmedial line. Underneath: primaries light brown, the costal and outer margins shaded with grey; a brownish streak on discocellular; the



postmedial line not lunular below vein 2, and followed by another line slightly lunular. Secondaries greyish irrorated with brown; a black point at end of cell; a medial thick brown line, outcurved beyond cell; a postmedial row of dark points indistinctly connected by a fine wavy line.

Expanse, ♂, 40 mm.

*Hab.* Sixola River; March.

*Olceclostera avangareza*, sp. n.

Head and thorax mottled grey and brown. Abdomen light brown irrorated with grey and brown. Primaries irrorated grey and brown; geminate antemedial and postmedial lines, within which the colour is more of a brown; the antemedial line is basally indentate on its inner side, nearly straight on its medial side; the postmedial on its basal side is curved beyond cell, then nearly straight to inner margin and heavily marked, its outer part is fine, slightly wavy, and outcurved between vein 2 and submedian; the outer margin brownish limited by a fine lunular line; a small subterminal hyaline spot between veins 5 and 6. Secondaries light brown; a dark line at end of cell; a dark median line; a fine postmedial line, slightly outcurved before reaching the inner margin. Underneath light brown; a dark streak on discocellular of primaries and the two postmedial lines only; on secondaries the outer line is whitish and angled between veins 5 and 6.

Expanse 34 mm.

*Hab.* Avangarez Mines; July.

Closely allied to *O. azteca*, Schs.

*Zanola tuisa*, sp. n.

Body brownish buff, the legs irrorated with darker brown. Primaries brownish buff, thinly irrorated with brown scales; an antemedial brownish shade bifurcating on costa; a small white spot at end of cell containing a black point; a postmedial brown shade incurved between vein 4 and just above submedian, followed by a fine lunular line punctiform on veins; two small subterminal white spots between veins 4 and 6, separated by a dark shade, the upper spot being the larger; a dark brown streak on costa before apex; the fringe dark brown between the veins. Secondaries whitish buff; a dark point in cell followed by a medial and a postmedial brown wavy line; the fringe dark brown. Underneath the secondaries are irrorated with dark brown, the discal spot is larger, and the postmedial line more dentate, partly shaded with black.



Expanse 33 mm.

*Hab.* Tuis ; June. Sixola River ; Sept.

Close to *Z. ennomoides*, Wlk.

*Zanola fieldi*, sp. n.

Body above dark brown slightly tinged with reddish, underneath buff, the abdomen with lateral oblique brown streaks and black points. Primaries dark brown-grey ; the costal margin and basal third below between cell and submedian dull reddish brown ; traces of an antemedial, medial, and postmedial dark line below the subcostal vein ; some buff scales on discocellular ; a fine dark subterminal outwardly lunular line ; a terminal inwardly lunular line contiguous to a small patch of buff scales between veins 4 and 5 ; a light brown shade at tornus. Secondaries dark brown shaded with reddish brown above cell and veins 6, and also a whitish medial space on costa. Primaries below brown ; the inner margin and outer margin below vein 5 buff ; the postmedial and subterminal lines nearly straight. Secondaries below buff, irrorated thinly with light reddish brown ; a dark point at end of cell and a reddish-brown medial shade ; the subterminal brown and grey partly edged with black, very broad with the margins dentate. The costal margin of secondaries is excised, and the apex is also excised.

Expanse 30 mm.

*Hab.* Sixola River ; March.

Named after Mr. H. M. Field, whose great kindness in lending me his powerful acetylene light enabled me to procure many new species.

*Zanola elongata*, sp. n.

Head and thorax reddish brown. Abdomen above dark brown. Primaries : the costal margin dull brown with some antemedial white scales ; cell and space beyond to postmedial dark reddish brown ; the discocellular black edged with bright reddish brown ; on basal half below cell a large bright reddish-brown space crossed by the dark brown antemedial line ; from this space to postmedial line below cell and vein 3 the colour is reddish brown ; the postmedial line is dark brown, wavy, and almost subterminal ; the outer margin dark brown, somewhat paler at tornus ; a subterminal dark lunular line chiefly visible between veins 4 and 7, where it crosses a patch of bright reddish brown which is widest between veins 4 and 5 ; below vein 5 the margin is wavy and oblique, giving the wing a long and narrow appearance.



Secondaries dark brown. Underneath the primaries are dark brown; the inner margin pale buff; a pale marginal space between veins 4 and 7, and a nearly straight postmedial line. Secondaries underneath light brown mottled with lilacine and reddish brown; a dark brown shade from apex to middle of inner margin, crossed at costa by the black postmedial line which is lunular, dentate; a wavy paler brown shade on outer margin. The costa of secondaries is straight and slightly produced upwards at apex.

Expanse 41 mm.

*Hab.* Tuis; August.

Bears a superficial resemblance to *Z. verago*, Cr.

*Colla cælestis*, sp. n.

♂. Legs white shaded with brown. Palpi brown. Head and thorax white; some brown on frons. Abdomen olivaceous brown above, laterally and underneath white. Wings white opalescent. Primaries: some antemedial and postmedial ochreous spots on costa; a broad subterminal space from vein 4 to costa broken by the veins and divided by a fine white line; a single subterminal spot between veins 2 and 3, these spots are apparently grey but also opalescent in the proper light; a marginal grey shade, not opalescent, cut by the veins; a terminal white line; fringe white outwardly, grey basally. Secondaries: some olivaceous-brown spots on inner margin, a grey spot above anal angle, and some marginal grey spots between angle and vein 4.

♀. Wings dirty white. Primaries: a basal space, and two antemedial smoky shades, slightly curved; a geminate postmedial shade curved from costa to vein 4, partly coalescing, followed by a broader similar shade, interrupted between veins 3 and 4. Secondaries as in the male.

Expanse, ♂ 27, ♀ 34 mm.

*Hab.* Sixola River; March, September.

Dalceridæ.

*Acraga hamata*, sp. n.

Primaries somewhat falcate, slightly produced and rounded below vein 4. Secondaries incurved below apex, the anal angle produced. Antennæ brownish buff. Head and thorax deep yellow. Abdomen pale yellow. Wings bright yellow; the costal margin of secondaries whitish.

Expanse 28 mm.

*Hab.* Juan Vinas; June. Tuis; May.



*Acraga goes*, sp. n.

♂. Lemon-colour; the frons slightly tinged with grey, the inner margin of primaries a trifle darker; the costal margin of secondaries slightly whitish.

Expanse 18 mm.

*Hab.* Guapiles.

*Anacraga philetera*, sp. n.

♂. Body orange. Primaries orange, darkest on inner margin. Secondaries orange; the costal margin broadly whitish yellow. Underside paler.

Expanse 22 mm.

*Hab.* Sixola, La Florida.

*Dalcera? innoxia*, sp. n.

Head and thorax grey mottled with white. Abdomen dark grey above with some white hairs. Primaries greyish brown; a white spot at base; a white streak below cell, interrupted by veins 2 and 3; a white streak above basal half of inner margin; some white on extreme inner margin on outer half; fringe white with dark spots at end of veins, and faint terminal white markings between the veins.

Expanse 32 mm.

*Hab.* Bajos del Toro Amarillo; April.

This species will require a new genus, as veins 7, 8, 9 are stalked, 10 is free, and 11 anastomoses with subcostal.

*Minacraga argentea*, sp. n.

♀. Head and thorax anteriorly whitish buff. Thorax posteriorly and abdomen silvery. Primaries silvery buff, except a large silvery-white irregular ovate space extending from the costal margin to inner margin near tornus, finely edged with ochreous and dark brown scales; terminal dark points on veins, the largest at tip of vein 7. Secondaries white irrorated with silver scales. Underneath white.

Expanse 30 mm.

*Hab.* Juan Vinas; June.

*Dalcerides bicolor*, sp. n.

♀. Head, thorax, legs, and abdomen below orange-red. Abdomen above blackish brown. Primaries orange-red, the veins slightly darker. Secondaries black, thinly scaled.

Expanse 28 mm.

*Hab.* Volcano Poas; May.



**Megalopygidæ.***Mesocia fluxa*, sp. n.

Head whitish; frons light brown. Legs light brown partly streaked with white. Collar and thorax white with some light brown and greenish-white shadings. Abdomen black; anal hairs white, and a white subdorsal tuft at base. Primaries: costa, base, inner margin finely, and apex white, the latter streaked with grey; the cell just beyond it, below it, and narrowly along inner margin pale greenish irrorated with black; the outer margin below vein 7 broadly light brown with intervenal grey streaks; an indistinct marginal white line. Secondaries black, the veins terminally whitish, and whitish shadings at anal angle.

Expanse 27 mm.

*Hab.* Sixola River.

Pattern of wings similar to *M. lorna*, Schs., but different in colour.

*Trosia venata*, sp. n.

Antennæ, head, and collar ochreous brown. Frons and legs blackish brown. Thorax pale brown; patagia whitish. Abdomen white tinged above with yellow. Wings white. Primaries: the costal margin and veins light brown.

Expanse 39 mm.

*Hab.* Avangarez; July. Esperanza; May.

*Megalopyge montana*, sp. n.

Head reddish brown, darkest on vertex. Thorax mottled reddish brown and buff posteriorly. Abdomen dark brown with transverse whitish bands. Primaries: the base and outer margin pale buff; the intermediate space brown, darkest antemedially and on costal margin; some dark spots at base; an outer white line, lunular, separated by the veins and shaded on either side with darker brown, except outwardly between veins 3 and 5; the apical third of costa light brown; a terminal dark line interrupted by the veins. Secondaries light brown; the outer margin pale buff; a terminal interrupted dark line. Underneath brown, the outer margins pale buff; the terminal line as above.

Expanse 34 mm.

*Hab.* Juan Vinas; February. El Sitio; May.

Allied to *M. salacia*, Druce, but altogether paler.



## Lacosomidæ.

*Cicinnus tuisana*, sp. n.

Head light reddish brown, collar roseate grey. Thorax grey. Abdomen roseate grey, all irrorated thinly with black scales. Wings lilacine grey thinly irrorated with black. Primaries: apex produced, acute, falcate; a dark round spot at end of cell; an indistinct dark antemedial shade; the postmedial oblique from costa, black, angled between veins 7 and 8, then inwardly oblique to inner margin, pale buff, indistinct, finely shaded with black, followed by a brownish shade below vein 3, most heavily marked between 2 and 5 and on submedian; a subterminal red dash across vein 6; the apex slightly darker grey. Secondaries: a black spot at end of cell; a medial curved black line, followed by a broad brownish shade especially on inner margin. Underneath grey with heavier black irrorations, and partly shaded with reddish; a terminal red patch on primaries between veins 3 and 7.

Expanse 48 mm.

*Hab.* Tuis, Juan Vinas.

Allied to *C. mexicana*, Druce.

*Cicinnus prominens*, sp. n.

♀. Head and collar reddish fawn, the latter edged posteriorly with grey. Thorax roseate grey. Abdomen reddish brown above, all irrorated thinly with black scales. Wings grey. Primaries: the costal margin for four-fifths roseate buff, crossed by a medial oblique black streak, and a black spot at four-fifths from base; the cell and antemedial area below cell pale reddish, outwardly limited below cell by a wavy dark line, and containing a black basal spot; a white streak on discocellular; the subterminal line fine, black, from costal spot oblique to vein 7 near margin, then inwardly wavy to inner margin at two-thirds from base, followed above vein 5 by a black and red shade, and below vein 4 to inner margin by a large blackish space broken by grey spots and red streaks on veins. Secondaries: some red suffusions at base; a faint antemedial line; a white streak at end of cell; a blackish line beyond cell; the outer margin suffused with dark brown, which extends to a line between veins 3 and 4; the inner margin narrowly whitish grey. Underneath grey with dark striæ; the primaries suffused with dark brown except on inner margin; white streaks on discocellular; the subterminal line dentate much closer to outer margin; a red



marginal space on primaries from vein 3 to above vein 7 ; some red streaks on veins of hind wings. The fore wings are acute and falcate.

Expanse 55 mm.

*Hab.* El Sitio, Juan Vinas.

*Cicinnus latris*, sp. n.

Head and collar reddish buff; thorax and abdomen buff, thinly irrorated with black scales. Wings brownish buff, thinly irrorated with black scales and striæ. Primaries: a black spot at end of cell; apex above vein 8 broadly dark grey; traces of a medial dark line; a black spot on costa at four-fifths from base; the outer line oblique from costal space, but intercepted by apical grey space angled at vein 8 and inwardly oblique, fine, blackish, closely followed by a brown line; a faint brown marginal shade from line at vein 4 to tornus. Secondaries: a faint antemedial line; a black medial line followed by a faint wavy line; beyond medial line the wing is dark brown tinged with red at anal angle. Underneath the black striæ are more conspicuous; on primaries the discal area and veins 2-8 are reddish; a bright marginal red space from veins 3-8, limited by the line which is curved from costa to outer margin at vein 3; on secondaries there are traces of an irregular subterminal black line. Primaries acute, falcate.

Expanse, ♂, 54 mm.

The ♀ has the outer margin of hind wings much paler and there is no red underneath.

Expanse, ♀, 63 mm.

*Hab.* Tuis, Juan Vinas.

*Cicinnus lacuna*, sp. n.

Head and thorax olivaceous brown. Abdomen buff-brown; a sublateral dark brown streak; anal hairs dark brown. Body thinly irrorated with black scales. Primaries: the costa beyond antemedial line light reddish brown; basal half of wing brown, somewhat paler medially below cell; a fine straight antemedial dark brown line; a black point at end of cell; a broad blackish-brown postmedial line, inwardly oblique from costa to inner margin, beyond which the wing is dark brown, with a fine blackish line close to postmedial, but not reaching costa, and still another faint line separates this space from the olivaceous-brown outer margin; a faint submarginal line from vein 4 to tornus. Secondaries similar, but no discal point, and the lines do not quite reach the



inner margin, which is light brown. Underneath the wings are paler; the postmedial line is narrow and slightly wavy, especially on hind wings; the discal spot on fore wings is larger and there is a black point on hind wings; the outer margins are shaded with dark brown. The female is duller; the postmedial line dark brown, geminate; the outer margin broadly olivaceous brown with some black irroration beyond the line, chiefly on hind wings.

Expanse, ♂ 47, ♀ 66 mm.

*Hab.* Tuis, Juan Vinas.

Closely allied to *C. unalca*, Schs.

*Cicinnus ligina*, sp. n.

Body and wings pale fawn-colour, slightly tinged with roseate and thinly irrorated with brown scales. Primaries: a faint wavy light brown antemedial line; an oblique hyaline spot at end of cell finely edged with light grey; a brown outer line obliquely curved from costa at two-thirds from base to vein 7, then oblique to inner margin, inwardly shaded with buff below vein 7; from the angle of line to apex a faint dark line; a subterminal dark brown spot between veins 3 and 4, and a fainter spot between 2 and 3; the tornus slightly excised. Secondaries: the outer margin crenulate; a brown medial line inwardly shaded with buff; a small dark outer spot between veins 3 and 4. Underneath paler; a single subterminal spot on fore wings between veins 2 and 3; the line on hind wings subterminal, excurved between veins 2 and 5.

Expanse 40 mm.

*Hab.* Juan Vinas, Tuis, Cachi.

Very closely allied to *C. gilia*, Schs.

*Cicinnus gentilis*, sp. n.

Body and wings grey, thinly irrorated with brown; the veins streaked with light brown. Primaries: a fine antemedial light brown line slightly curved; a fine streak at end of cell running into a hyaline streak on discocellular which is broadly edged with black; an oblique greyish-brown outer line angled between veins 6 and 7, then inwardly oblique to inner margin; a fine greyish streak from line at vein 5 to tornus; a terminal brown shade. Secondaries: a medial brown line; a grey streak from costa before apex to anal angle. Underneath similar, except on hind wings, where



there is only a postmedial fine brown line slightly angled at vein 4.

Expanse, ♀, 31 mm.

*Hab.* Sixola River.

*Cicinnus turgidus*, sp. n.

Body and wings pinkish fawn-colour, irrorated with dark brown. A dark brown subdorsal streak on abdomen, and the segments posteriorly edged with dark brown. Primaries: a faint wavy antemedial light brown line; an oblique brownish line from middle of costa to spot at end of cell, which is oblique and hyaline; the outer line thick, olivaceous brown, oblique from costa to vein 7 near margin, then angled and inwardly oblique to inner margin, inwardly shaded with buff; a wavy black streak from angle of line to apex; a faint blackish line from vein 4 to near tornus. Secondaries slightly crenulate; a heavy olivaceous-brown medial line, a blackish streak from vein 4 near line to outer margin near anal angle. Underneath paler; the outer line narrower, on secondaries straight from costa near apex to vein 4, then slightly angled; a subterminal black spot on fore wings above vein 2, and a smaller spot below vein 2.

Expanse 60 mm.

*Hab.* Sixola River; Sept.

Allied to *C. trailii*, Btl.

*Cicinnus dulcis*, sp. n.

Body yellowish buff. Primaries: the basal third of costa, the base to antemedial line, and the outer margin light olivaceous brown; the medial space slightly light reddish brown, below vein 2 pale roseate lilacine, which extends slightly beyond line, but less marked; the apex above angle of outer line roseate lilacine; the outer line curved from costa to vein 7, blackish on costa and very fine along vein 7, angled and nearly straight to inner margin just beyond middle, dark brown, inwardly shaded with buff; a brownish streak from costa at two-thirds to discal spot which is hyaline and cut by vein 5; a few black irrorations on medial space; a faint darker shade from vein 4 to tornus. Secondaries: the base to line roseate lilacine with a few black irrorations; the medial line straight as on fore wings; the outer margin olivaceous brown tinged with roseate at apex and anal angle. Underneath roseate, the outer margin suffused with brown;



the outer line curved beyond cell on fore wings with a black subcostal spot, and the marginal shades below vein 4 heavier and blackish; on hind wings the line is wavy and slightly angled between veins 3 and 4.

Expanse 46 mm.

*Hab.* Juan Vinas; January.

*Cicinnus volucris*, sp. n.

♂. Body and wings dark brown. Fore wings narrow, very falcate; hind wings produced at anal angle. Primaries: the costal and outer margins lighter brown irrorated with dark brown; the outer line still darker brown, angled between veins 6 and 7, closely followed below angle by a blackish line, which at angle extends to apex; a curved shade consisting of black irrorations from vein 3 at line to submedian; an oblique hyaline spot at end of cell, cut by vein 5. Hind wings rather paler; a hyaline point at end of cell; the line as on fore wings diverging near inner margin to anal angle. Underneath paler; the marginal spots beyond line more heavily marked.

Expanse 37 mm.

*Hab.* Sixola; Sept.

*Cicinnus beta*, sp. n.

Head, collar, and abdomen above light reddish fawn; abdomen below and thorax roseate grey, thinly irrorated with black. Wings roseate grey, thinly irrorated with black. Fore wings: the costa finely olivaceous brown; an ante-medial, curved, light brown shade; a medial dark spot on costa; at end of cell an upright hyaline spot outwardly edged with black and cut by vein 5 forming a small letter B; the outer line fine, brownish, from costa to vein 8, then angled and increasing in width to inner margin, black, inwardly shaded with grey, and followed from below vein 4 by a larger whitish patch thickly irrorated with black; a brownish line from angle to apex; a small reddish shade between 7 and 8; the outer margin dull grey; the veins partly streaked with reddish. Hind wings: the basal half roseate grey with some slight reddish-brown mottling and dark irrorations; a hyaline spot as on primaries, closely followed by a black transverse line, beyond which the margin is duller grey with brown and reddish shadings; at apex a pale patch as at tornus on fore wings, and a similar smaller and darker space at anal angle.



Primaries below with the disk shaded with red, and a marginal red space between veins 4 and 8, inwardly edged by a dark line; some dark shades beyond discal spot; an inwardly curved black line along vein 3 and to inner margin, followed by a pale patch with black irrorations. Secondaries below roseate grey; a reddish-brown patch around discal spot, one at apex, and another at anal angle, the latter surmounted by a semilunar black line.

*Hab.* Sixola River; Sept.

Closely allied to *C. lemoulti*, Schs.

*Cicinnus alsa*, sp. n.

Head reddish fawn-colour. Body and wings olivaceous buff, with a few scattered black scales. Primaries: the costal margin tinged with roseate, the extreme costa finely brown; a black spot above vein 8 at four-fifths from base, from which a fine line extends to near margin, where it is angled and forms a slight inward curve to inner margin postmedially; this line is of a darker shade and outwardly bordered with light buff; a small hyaline spot at end of cell, edged with black on basal side; a very faint antemedial darker shade. Secondaries: a subbasal dark shade; a faint whitish spot at end of cell; the outer line as on fore wings, not quite straight. Underneath the wings are more reddish brown; a faint dark fine subterminal line on primaries curved between 7 and 5, straight to 2, then incurved to inner margin; on secondaries slightly incurved below costa, then outcurved to inner margin; the black on discal spot of primaries more conspicuous. The wings are broad, and the outer margin of secondaries evenly rounded.

Expanse 36 mm.

*Hab.* Turrialba, 5800 feet, Juan Vinas.

Allied to *C. imperita*, Dogn.

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XLV.—A Note on *Alouatta discolor* of Spix.

By GUY DOLLMAN.

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THE British Museum has recently acquired a series of monkeys from Miritiba, Maranhao, Brazil, which appear to represent the Varied Howling Monkey described by Spix as





Schaus, William. 1910. "XLIV.—New species of Heterocera from Costa Rica—II." *The Annals and magazine of natural history; zoology, botany, and geology* 6, 402–422. <https://doi.org/10.1080/00222931008692867>.

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