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XLI.—*New Species of Heterocera from Costa Rica.*—XXI.

By W. SCHAUS, F.Z.S.

[Concluded from p. 357.]

Erateina delecta, sp. n.

♀. Body black; longitudinal yellow-white lines on frons and thorax; transverse lines on collar and abdomen. Fore wings fuscous brown; basal third shaded with slate-grey; inner margin white; a red streak along costa, not reaching apex; a semihyaline white oval spot close beyond cell, suffusing with a similar outbent and downcurved spot from veins 4 to 2; cilia at apex tipped with white. Hind wings black, almost entirely filled with a semihyaline white spot, not touching margins, the veins crossing this spot more heavily scaled; a terminal small white spot above vein 6, and a larger spot including cilia between veins 6 and 5; whitish mottlings on cilia otherwise. Fore wings below dark red; inner margin greyish; a yellow-white streak on basal half of extreme costa, one below it and on median vein; a white streak in cell; a yellowish spot on costa to semihyaline spot. Hind wings: the margin dark red; whitish streaks at base; the costa narrowly yellow-white; the white space shaded in front with purple-red, reaching and angled at vein 6, behind edged with black; large terminal white spots edged with fuscous brown, the largest spot between veins 5 and 6, only inwardly so edged, the white extending through cilia.

Expanse 33 mm.

Hab. Poas.

Cænocalpe dryasaria, sp. n.

♂. Body grey irrorated with brown; basal segment of abdomen white, on following segments two fine interrupted fuscous-brown lines. Wings grey irrorated with brown; a fine terminal fuscous line; cilia fuscous. Fore wings: lines fuscous brown; basal line fine; subbasal geminate filled in with dark brown; antemedial similar, outangled on costa and inbent; medial space to outer line tinged with brown, except on costal margin; a black point on discocellular; postmedial line fine, geminate, barely traceable; outer line inbent from costa preceded by a fuscous-brown shade from veins 5 to 7, outwardly finely edged with white, and followed by a lunular dark brown line, punctiform on veins; a whitish shade from vein 5 to apex; traces of a whitish subterminal line. Hind wings: lines defined on inner half chiefly; geminate antemedial and medial lines; a postmedial line; an outer lunular line followed by dark points on veins; a whitish subterminal line. Wings below greyish white irrorated with brown forming faint lines; the postmedial line more distinct; black discal points.

Expanse 22 mm.

Hab. Juan Vinas.

Hammaptera dominans, sp. n.

♀. Frons dark green. Vertex, collar, and thorax brown mottled with fuscous. Abdomen yellow-brown irrorated with black. Fore wings: base dark greyish green, crossed by a subbasal geminate outcurved line, followed by a pale green narrow antemedial shade, outwardly crossed by a fine dark green line, then a dark brown space edged with fuscous, its outer edge inbent below subcostal, incurved from vein 2 to submedian; medial space lilacine brown to postmedial, then slightly darker to outer line; a dark streak on discocellular; postmedial fine, dark brown, geminate, outbent on costa, vertical opposite, wavily incurved below vein 3; the outer line fuscous brown, outcurved, lunular, partly interrupted, followed by a green shade, crossed by a dark green line, outwardly edged by a dark brown line which is partly geminate; termen mottled green and brown; subterminal white points on veins; an interrupted terminal dark brown line; cilia light brown spotted with fuscous. Hind wings yellow-buff; inner area broadly shaded with fuscous to a fine outer line, geminate on inner margin; some fuscous marginal spots and reddish irrorations; the terminal dark line interrupted and not reaching apex. Wings below

yellow-buff; fine fuscous lines on discocellulars. Fore wings: a fuscous shade in and below cell to near termen between veins 2 and 4; four fine postmedial lines, outbent, partly suffusing from costa to vein 4; a large apical fuscous space from costa to vein 4, crossed by yellow subterminal points; a subterminal fuscous line from vein 4 to near tornus. Hind wings with some reddish and dark grey irrorations; faint traces of a geminate postmedial line; the outer line better defined; subterminal shade narrow, interrupted.

Expanse 31 mm.

Hab. Poas.

Near *H. fulvifusa*, Warr.

Hammaptera colonaria, sp. n.

♀. Frons pale bistre. Vertex, collar, and patagia light brown, darker-shaded. Thorax and abdomen whitish grey, thickly irrorated with yellow-bistre; thorax edged behind with black; a transverse fuscous band on base of abdomen and similar segmental lines. Fore wings whitish irrorated with pale brown; subbasal, antemedial, and postmedial broad olive-brown lines, edged with fuscous brown, the outer edge of postmedial lunular below vein 4; a dark streak on discocellular; a subterminal lunular white line from costa to vein 4, preceded by two olive-brown lines, and followed by darker shading interrupted between veins 7 and 8; paired terminal fuscous markings at veins; cilia pale brown tipped with grey, with darker shadings at veins. Hind wings greyish white, broadly paler beyond postmedial; a fine grey medial and postmedial line, the latter closely followed by a slightly darker line; terminal fuscous markings. Wings below creamy white; marginal fuscous shadings, darkest from costa to vein 4; short black discal streaks. Fore wings: a postmedial fuscous shade, its outer edge outangled at vein 4. Hind wings: a faint postmedial line, followed by a coarser line outcurved below vein 4.

Expanse 27 mm.

Hab. Esperanza.

Rhodomena cachiria, sp. n.

♀. Palpi black, spotted with white at base. Head and thorax whitish grey, faintly shaded with light brown; a black and metallic bronze tuft behind. Abdomen whitish grey, dorsally shaded with fuscous at base, followed by reddish-brown shades. Fore wings white; the base narrowly black to below cell; a subbasal fine black line terminating in black

spots on margins ; an antemedial fascia, fuscous brown mottled with black, partly edged with pale brown shadings, chiefly in cell, where it is joined by an inbent line from a triangular fuscous spot on costa ; medial space broadly clear white, narrow on costa ; a small yellow-brown spot on discocellular with a few black scales ; postmedial line fine, black, starting from costal spot, incurved opposite cell, out-angled below vein 4, incurved and spotted on veins ; a parallel fainter line follows, the intermediate space tinged with green and roseate brown, both lines macular between veins 2 and 4 ; the outer line followed by a broad fuscous-brown shade, but narrow between veins 2 and 4, its outer edge somewhat lunular ; terminal space pale green with faint roseate-brown shadings subterminally ; a dark terminal line ; a fuscous spot at apex ; cilia spotted with fuscous. Hind wings whitish grey, with faint postmedial, subterminal, and terminal greyish shades. Wings below whitish grey, obscured by darker grey shadings. Fore wings : the antemedial fascia, postmedial line, subterminal shades, and apical spot well indicated. Hind wings thickly striated and mottled with grey ; a darker postmedial shade ; subterminal shading darker, not reaching costa.

Expanse 25 mm.

Hab. Cachi.

Anapalta avolaria, sp. n. .

♂. Body and base of fore wings grey irrorated with dark grey and fuscous brown. Fore wings : a subbasal black line ; antemedial line fuscous, outcurved, closely followed by a sinuous medial line ; space beyond broadly brownish white ; geminate postmedial dark lines on costa ; outer line fuscous, outcurved from costa to vein 2, then slightly inbent to inner margin ; terminal space brown, darker-shaded on costa, opposite cell, and at tornus ; traces of a whitish subterminal line. Hind wings whitish, the termen tinged with grey, shading to fuscous grey at anal angle ; antemedial, medial, and outer lines faintly indicated. Fore wings below duller, the lines faintly marked towards inner margin ; a broad fuscous subterminal shade from costa to vein 4. Hind wings brownish white ; antemedial, medial, postmedial, and subterminal lines faint ; a fuscous spot on discocellular at medial line ; the outer line deeply outcurved, darker, and distinct.

Expanse 21 mm.

Hab. Poas.

Eupithecia albibasalis, sp. n.

♂. Body brownish buff. Abdomen: a fine black segmental line on second segment; anal hairs fuscous. Fore wings: costa mottled with light brown and white, the extreme edge black, interrupted by whitish shades; a white space at base in and below cell, crossed by a subbasal light brown line, and limited by an antemedial line outangled on subcostal, this line light brown on margins, otherwise fuscous, and is followed in and below cell by a dark greyish shade, outwardly edged by a darker line, outcurved in cell and below it; rest of medial space greyish brown crossed by a fine dark line, outbent on costa; postmedial somewhat punctiform, followed by two series of smaller points faintly connected by lines; outer space above vein 4 whitish grey; a fine greyish subterminal shade; the termen shaded on interspaces with light brown, the shade at apex larger, more conspicuous; a terminal dark line; a small white spot at tornus and one on cilia at tornus. Hind wings dark grey with traces of lines, fuscous on inner margin and shaded with light brown. Wings below dark grey, the lines darker. Fore wings: a yellowish shade on costa to postmedial; the postmedial shade broadest. Hind wings: two antemedial and a medial line; the postmedial more outcurved, coincident with medial on margins; a punctiform line following it, and a subterminal shade.

Expanse 22 mm.

Hab. Juan Vinas.

Eupithecia albimixta, sp. n.

♀. Head mottled white and fuscous. Collar brownish grey and black. Thorax and abdomen fuscous mottled with grey; some pale reddish-brown shading dorsally on abdomen beyond base. Fore wings white, the lines and shadings black; subbasal line broad, slightly curved; a broad greyish shade following it; antemedial fascia broad, its inner edge evenly curved, its outer edge outangled in cell and on fold; a dark streak on discocellular, and a fine medial line outcurved around it; postmedial broad, partly interrupted, divided by a white line opposite cell; large grey and fuscous subterminal patches from costa to vein 4, outwardly edged by a fine lunular white line, and with a light brown mark on vein 6; some similar shadings below vein 2 to tornus; a fine terminal black line; cilia spotted black and white. Hind wings greyish white; traces of transverse lines; a fine dark terminal line. Wings below greyish. Fore wings suffused with fuscous

on costa and apically, with whitish-buff spots on costa. Hind wings irrorated with fuscous grey, the lines well marked, rather thick; a basal, antemedial, two medial, a postmedial, and a subterminal line; a fine black terminal line. Very similar to *E. cyrnea*, Dr. Postmedial line more outcurved. Hind wings greyer; wings below much darker, the lines heavier.

Expanse 22 mm.

Hab. Poas.

Eupithecia brevicula, sp. n.

♂. Body buff; thorax and base of abdomen fuscous brown; tip of abdomen fuscous; anal hairs buff. Wings brownish buff. Fore wings: base below subcostal to inner margin, a streak below subcostal to end of cell, a broad shade along submedian, and costal half beyond postmedial fuscous grey with traces of black lines; on costa only a faint antemedial and medial line; a dark point on discocellular; postmedial fuscous, outangled at vein 6, inangled on vein 3, with darker spots on veins; a subterminal fuscous shade, interrupted by ground-colour between veins 3 and 5, outwardly faintly edged by a greyish dentate line; terminal fuscous streaks on interspaces above vein 5, and below vein 2. Hind wings: costa to postmedial greyish white; inner margin irrorated with black at base; a small dark spot on discocellular anteriorly; a postmedial shade; a subterminal shade on costa; terminal cuneiform black spots near apex. Wings below whitish buff; black discal points; a distinct postmedial line; fuscous apical shades. Fore wings: a subterminal shade, indistinct between veins 3 and 5.

Expanse 13 mm.

Hab. Juan Vinas.

Eupithecia briseis, sp. n.

♂. Body olive-brown; anal hairs white. Fore wings pale olive-brown shaded with reddish brown subterminally; a fine darker subbasal line; a fine darker antemedial line, outcurved on costa, and inbent; an almost medial dark brown fascia, inwardly edged with fuscous brown, and also inbent, its edges even; a curved line, open in front, around discocellular; two indistinct punctiform lines from it to inner margin; postmedial straight on costa, brown, outcurved from veins 6 to 2, fuscous, preceded by a dark shade opposite cell; termen shaded with grey. Hind wings white; inner margin narrowly fuscous brown towards base; a

similar postmedial line on inner margin; anal angle shaded with brown. Hind wings below whitish, very faint antemedial and medial lines; the postmedial consisting of short brown streaks on veins.

Expanse 19 mm.

Hab. Poas.

Eupithecia broteas, sp. n.

♀. Head and palpi whitish buff; frons shaded with yellow. Collar pale grey. Thorax yellow-brown; a transverse white fascia followed by fuscous spots on patagia, and grey shade behind. Abdomen yellowish with black dorsal points. Wings whitish grey crossed by numerous inbent olive-brown lines, partly suffusing, irrorated in cell and below it with fuscous; a black spot on discocellular; the medial line just beyond cell very fine yellowish; the two postmedial lines broader, irrorated with fuscous brown on veins, the outer followed by a clearer grey shade, then an olive-brown shade and the subterminal line, which is white and lunular towards costa; outer margin olive-brown; fine black streaks on interspaces from subterminal to termen; a terminal darker olive-brown line; cilia greyish spotted with smoky olive-brown. Hind wings: the costal margin broadly whitish with very faint traces of lines; the lines irrorated with fuscous before inner margin. Wings below greyish white. Fore wings: antemedial and medial line fine; a fuscous line on discocellular; postmedial broad with darker streaks on veins; a fine outer line; a dark line, broad on costa before pale subterminal; a dark marginal shade. Hind wings: a fine antemedial line; a black point at upper angle of cell; a well-marked postmedial line; a subterminal line; some marginal shadings, and a terminal line.

Expanse 23 mm.

Hab. Juan Vinas.

Eupithecia cachina, sp. n.

♀. Palpi pale brown. Head, collar, thorax, two basal and terminal segments of abdomen bone-colour; black points on patagia; abdomen otherwise grey-brown with fuscous segmental lines. Wings bone-colour, the markings dull fuscous brown. Fore wings: subbasal fine, interrupted by pale median; antemedial irregular, inbent, preceded by a shade on costa; a line before end of cell, inbent; a spot on discocellular; line following cell fine, deeply inbent to near previous line; a broad postmedial shade, followed by a

clear pale shade from costa to vein 4, and below it by pale and fuscous geminate spots on veins; outer space dark-shaded, with some pale spots on veins, followed by a dentate pale subterminal line; an interrupted terminal line, barely darker than terminal shadings; cilia fuscous with pale spots. Hind wings: the lines as on fore wings, the finer lines not reaching costa. Wings below slightly browner, the lines and shades dull brown. Fore wings: all the lines present. Hind wings: a basal and antemedial line; a broad medial and subterminal shade.

Expanse 18 mm.

Hab. Cachi.

Eupithecia caliginosa, sp. n.

♂. Antennæ pubescent. Fore wings long, broad at termen. Palpi, vertex, and collar brownish grey; frons darker. Thorax fuscous brown; abdomen slightly browner, with dorsal black and buff points. Wings brown. Fore wings: space below cell shaded with fuscous; a fine sub-basal black line; an outcurved fuscous line before end of cell; a black point on discocellular; postmedial broad, out-angled, marked with fuscous spots on interspaces, partly irrorated with whitish-grey scales; similar scales on submedian; two fine brown lines following postmedial, well apart, and with small darker spots on veins; fine black lines on interspaces to termen, interrupted by the faint whitish subterminal line; a terminal dark line interrupted by veins. Hind wings: base of costa highly arched, downcurved and produced at vein 6; subbasal, antemedial, medial, postmedial, and outer fuscous lines, the postmedial broadest; some subterminal greyish scaling. Wings below brownish white; the postmedial line outcurved, well marked; the subterminal dark line more distinct on fore wings; a black discal point on fore wings.

Expanse 17 mm.

Hab. Poas.

Eupithecia cariosa, sp. n.

♀. Palpi yellow-brown, the second joint irrorated above with black. Head and collar yellow-brown. Thorax dark brown crossed in front with white spots and with a medial spot behind. Abdomen brown; black dorsal tufts on segments. Wings dark brown, the veins irrorated with black and white; a subterminal lunular dentate white line partly interrupted and inwardly shaded with fuscous above

and below vein 5; the cell, the inner margin broadly, and a shade from cell to apex irrorated with fuscous; a fine medial white line outangled on discocellular; traces of a similar antemedial line. Hind wings: a geminate medial paler shade, and fuscous postmedial shade, all ill defined. Wings below brownish grey; the postmedial and subterminal fuscous shades well defined, the latter followed by a dentate whitish line on fore wings, and by a wavy shade on hind wings with branches towards postmedial; fine lines on discocellular, and traces of antemedial lines.

Expanse 22 mm.

Hab. Juan Vinas.

Eupithecia contexta, sp. n.

♀. Body fuscous mottled with grey. Fore wings fuscous brown crossed by whitish-grey lines, outcurved and sinuous; a subbasal line; the antemedial and medial fascia broad, divided by a fuscous line; the space following crossed by a whitish line and limited by the white postmedial which is also divided by a fuscous line; a subterminal lunular dentate white line; cilia whitish grey with dark spots; the subcostal vein to just beyond postmedial light brown; the end of median and veins 3 and 4 partly light brown; vein 6 light brown between postmedial and subterminal; a dark line on discocellular. Some specimens are greyer and the shade following antemedial is velvety black. Hind wings dark brownish grey; traces of two antemedial and a medial line; median, vein 2, and inner margin irrorated with fuscous brown, the inner margin with white lines also. Wings below brownish grey. Fore wings: four outcurved darker lines beyond middle and a subterminal shade broadest on costa. Hind wings: two antemedial, a medial, and postmedial line; outer margin darker-shaded, with small whitish subterminal spots on interspaces; dark points on veins on either side of postmedial line. This species has a distinguishing feature in the light brown subcostal, and similar shade on vein 6. The only species approaching it is *E. viperea*, Schs.

Expanse 22 mm.

Hab. Juan Vinas, Poas.

Eupithecia derogata, sp. n.

♂. Antennæ pectinated. Palpi and head buff. Thorax and abdomen dark grey, irrorated with fuscous; darker segmental lines; some light brown shading on patagia.

Fore wings: costal margin dark grey, with fuscous lines; a fuscous space between cell and submedian to vein 2; cell and inner margin brown; subbasal and antemedial fine black lines, barely traceable; a dark line on discocellular, preceded by two dark lines in cell; a fine dark postmedial line followed by a broad fuscous shade from costa to vein 4, and another fine fuscous line; below vein 4 there is a brownish shade followed by a lunular line; an outer fine brown line followed by similar shadings to termen, crossed by a very faint subterminal pale line, partly shaded with fuscous; a fine terminal fuscous line; cilia fuscous spotted with whitish. Hind wings: costal margin highly arched with large fovea containing long hairs, outwardly downbent and produced above vein 4; antemedial, medial, and postmedial broad fuscous lines, the last followed by a fine brown line; outer space brown, crossed by a white subterminal line inwardly shaded with fuscous; an interrupted terminal line. Wings below whitish grey. Fore wings: an oval dark space below cell, corresponding to fovea of hind wings; a dark line on discocellular, postmedial and subterminal lines dark, out-curved. Hind wings: fovea black; antemedial, postmedial, and subterminal darker lines.

Expanse 17 mm.

Hab. Juan Vinas, Avangarez.

Eupithecia dissors, sp. n.

♂. Palpi and collar buff. Head and thorax greyish brown. Abdomen brown shaded with fuscous dorsally. Fore wings buff, the lines broad fuscous grey; a fuscous basal shade; an antemedial line, the medial suffusing with postmedial below subcostal; a fuscous streak on discocellular; the outer edge of postmedial lunular dentate; the subterminal shade outwardly lunular dentate edged with greyish-buff scales; a fine terminal black line; cilia with faintly darker shades at veins. Hind wings: costal margin grey, broadly fuscous shaded beyond middle; inner half buff-brown; a medial and a subterminal fuscous line. Wings below buff-brown shaded with fuscous grey; dark discal spots. Fore wings: an antemedial and broader postmedial line; the outer margin broadly darker, crossed by a subterminal macular buff line. Hind wings: a subbasal line; a medial line touching discal spot; a subterminal shade suffusing with terminal shade at apex.

Expanse 17 mm.

Hab. Juan Vinas.

Eupithecia fausta, sp. n.

♂. Frons light brown. Vertex and body greyish white, the abdomen shaded with light yellow-brown. Fore wings: costal margin and a little more than terminal third pale yellow-brown; a white streak along cell in front to subterminal line, which is also white, and expands to termen between veins 3 and 4; cell behind, and below to inner margin, dark grey; a terminal interrupted fuscous line; cilia dark grey. Hind wings: the basal half dark grey, followed by a white shade, and then pale yellow-brown; the termen broadly white; the terminal line preceded by yellowish shades in places. Fore wings below brown, the inner margin silky grey. Hind wings below whitish.

Expanse 15 mm.

Hab. Poas.

Eupithecia josefina, sp. n.

♀. Head and collar greyish brown. Thorax and abdomen brown; a fuscous shade across thorax in front; a buff shade across base of abdomen. Wings light silky brown; a fine terminal dark line; cilia mottled with lighter brown. Fore wings: lines on costa and inner margin slightly darker brown, not traceable otherwise; a small black spot on discocellular; an outer faint paler line; subterminal whitish, interrupted, preceded on costa by a fuscous-brown spot. Hind wings: the inner margin mottled with dark brown and white; a brown streak on discocellular; subterminal white, only near anal angle. Wings below greyish brown. Fore wings: costa mottled with grey between the lines; antemedial vertical; black discal spots, postmedial and subterminal slightly outcurved. Hind wings; the lines slightly darker; two antemedial, a broader medial, a punctiform postmedial, and dentate subterminal line.

Expanse 17 mm.

Hab. San José.

Eupithecia macreus, sp. n.

♀. Body brownish grey, the abdomen mottled with fuscous. Fore wings dark brown, crossed by thick light brown lines, the dark portions edged with fuscous; basal, subbasal, and antemedial lines slightly inbent; medial line sinuous passing close beyond fuscous streak on discocellular, a broad postmedial space dark brown, light brown on costa with three fuscous spots, otherwise crossed by a single

fuscous line, outwardly edged with some whitish scaling and a light brown shade followed by a dentate black line; subterminal line white, lunular; termen with light brown shading on interspaces; an interrupted terminal dark line; cilia grey-brown with darker spots. Hind wings brownish white; a dark streak on discocellular; lines faintly indicated; the subterminal dentate, better defined; a black terminal line. Wings below pale brownish. Fore wings: medial, postmedial, and outer lines outcurved on costal half, then vertical; subterminal evenly curved. Hind wings: postmedial line the darkest, followed by a very fine line; the subterminal lunular.

Expanse 26 mm.

Hab. Poas.

Eupithecia montana, sp. n.

♀. Wings long and narrow. Body and wings greyish buff, faintly tinged with brown. Abdomen: a transverse dark brown shade near base; dorsal fuscous points. Fore wings: lines indicated by broad dark shades on costal margin, otherwise by irrorations slightly inbent and forming small spots on median and points on submedian; subbasal on costal only; antemedial fine; medial barely traceable below cell; postmedial inangled on subcostal, with dark streaks on costa and beyond cell; an outer row of points on veins; terminal space somewhat darker-shaded; the pale subterminal line faintly indicated; a dark interrupted terminal line. Hind wings slightly whiter: a black discal point, and fuscous line through it to inner margin; lines preceding it only on inner margin; a faint subterminal line not reaching costa; termen darker-shaded; a dark terminal line. Wings below duller; black discal points, dark terminal line. Fore wings: postmedial and outer lines faintly indicated. Hind wings: medial line reaching costa; outer line indicated by brown streaks on veins.

Expanse 21 mm.

Hab. Poas.

Eupithecia nemoralis, sp. n.

♀. Body greenish white, the abdomen irrorated with fuscous. Wings greenish white. Fore wings: the lines below cell and vein 4 very finely reddish brown; a fuscous shade at base of costa; antemedial line faintly indicated, geminate; medial line outangled at black discocellular point, followed by a broad dark shade to cell; postmedial macular

on costa, dark brown, slightly outcurved, parallel with medial line below vein 4, and followed from vein 4 to costa by a broad fuscous-brown shade; a fine greenish outer line, followed by a fine reddish-brown line partly punctiform; subterminal black spots, largest on costa and between veins 4 and 5, faintly connected by a dentate white line; an interrupted terminal black line. Hind wings: black irroration forming fine antemedial and medial lines; a similar broad postmedial shade, dividing into three fine lines on costa; outer space tinged with pale green; the dentate subterminal white line preceded by small black spots; a black terminal line, interrupted at veins; cilia greenish with dark spots.

Expanse 18 mm.

Hab. Juan Vinas.

A male from the Volcano of Turrialba, which I think belongs to this species, has the costal shadings reddish brown, the cilia reddish brown, and there is a distinct white spot on discocellular of fore wings.

Expanse 13 mm.

Eupithecia olivocostata, sp. n.

♀. Palpi, head, collar, and thorax yellow-brown, probably olive-green when fresh. Abdomen dull greyish brown with paler segmental lines. Wings dull dark brown; a slightly darker terminal line; cilia buff, darker-shaded at veins. Fore wings: costal margin olive-green; a small fuscous spot on discocellular, and pale oblique shade above it; lines not traceable; a faint fuscous postmedial shade, a subterminal white spot below vein 2, a larger spot between 3 and 4, and a faint whitish line from vein 5 to costa. Hind wings: costa broadly shaded with whitish to near apex; a dark streak on discocellular; faint antemedial and medial lines; postmedial broader, heavier marked; subterminal white spots on interspaces, the largest between veins 3 and 4. Wings below whitish buff, a faint antemedial line; dark brown streaks on discocellulars; postmedial line outcurved; the subterminal whitish spots preceded by a dark shade; the termen faintly dark-shaded.

Expanse 27 mm.

Hab. Poas.

Eupithecia placens, sp. n.

♀. Palpi and frons brown. Vertex, collar, and thorax greyish. Abdomen brown, with some darker irroration.

Wings whitish grey; darker shades on cilia at veins. Fore wings: costal margin shaded with buff; lines faint, pale brown; subbasal, antemedial, and medial lines not traceable below cell; some black scales near end of cell; a round black spot on discocellular; postmedial shade slightly darker-tinged, outcurved beyond cell, marked with fine fuscous streaks on veins; a dull reddish-brown subterminal shade outwardly crossed by a fine pale line. Hind wings greyer; inner margin buff, crossed by three dark brown spots. Wings below darker grey; faint discal spots; lines barely indicated.

Expanse 22 mm.

Hab. Juan Vinas, Poas.

Eupithecia rectilinea, sp. n.

♀. Palpi buff. Head whitish buff. Thorax and abdomen buff with transverse brown lines, interrupted dorsally. Fore wings long, narrow; anal angle rounded. Wings brown, the lines whitish; terminal whitish points; a fine whitish line at base of cilia; subterminal line parallel with termen, inangled on submedian. Fore wings: costa shaded with buff to near postmedial; subbasal and antemedial lines, dark brown on costa, inbent below it; medial line inbent from subcostal; postmedial straight. Hind wings: antemedial and medial line straight; postmedial slightly upcurved towards inner margin. Fore wings below silky grey-brown; medial and postmedial buff, inwardly shaded with fuscous, well marked on costal half. Hind wings below; an antemedial and postmedial darker brown shade outwardly edged with buff-brown.

Expanse 16 mm.

Hab. Juan Vinas.

Eupithecia rufa, sp. n.

♀. Palpi and head greyish buff. Collar and thorax pale reddish. Abdomen dark brown, the terminal segment buff; lateral reddish spots. Wings dark brownish grey. Fore wings: base reddish limited by a fine subbasal black line; two faint antemedial darker lines, curved on costa and inbent, chiefly indicated by irrorations; medial space from below cell to costa pale red, darker on costa, outwardly edged by a postmedial curved dark line, faintly defined and not crossing costal margin, where the reddish shade extends somewhat; an outer row of pale points on veins; a subterminal whitish

line, partly obsolescent from below vein 5; terminal pale points. Hind wings: a faint antemedial and postmedial darker shade; terminal roseate points. Wings below silky brownish grey; darker discal spots, and a postmedial shade; subterminal paler spots.

Expanse 19 mm.

Hab. Juan Vinas.

Eupithecia subtilis, sp. n.

♀. Head and collar fuscous mottled with buff. Thorax and base of abdomen buff-brown; abdomen otherwise mottled and spotted with black. Fore wings buff-brown; base of costa and cell fuscous; a black discal spot containing a few grey scales; a fuscous shade on costa from before end of cell to postmedial, crossed by whitish lines; three postmedial fine indistinct lines, fuscous-shaded on inner margin; a very faint subterminal pale shade; cilia tipped with grey. Hind wings: the apical area buff-brown, the inner margin irrorated with fuscous; black and whitish spots and lines on median, veins 2 and 3, and submedian. Wings below dark greyish brown, with fuscous discal spots. Fore wings: traces of darker lines chiefly on costa. Hind wings: traces of dark lines; some whitish lines on inner margin from middle to termen; some terminal whitish shades.

Expanse 17 mm.

Hab. Juan Vinas.

Eupithecia summissa, sp. n.

♀. Body and fore wings dull grey. Fore wings thinly irrorated with fuscous brown; a fine wavy subbasal fuscous line; a nearly medial fuscous line suffusing with an oblique black line across costa and discocellular; two fine outcurved lines beyond followed by the more heavily shaded postmedial fuscous line; postmedial followed by three fine brownish lines, the two outer lines more heavily marked, the last edging the subterminal shade which is dull grey; the termen darker grey; a terminal fuscous line. Hind wings brownish grey, more darkly irrorated on outer and inner margins; traces of a line on inner margin. Wings below paler, the lines darker, very faint. Hind wings: two antemedial, a medial, postmedial, and subterminal lines equally apart.

Expanse 19 mm.

Hab. Poas.

Vein 5 on fore wing from lower angle of cell.

Eupithecia superans, sp. n.

♂. Frons fuscous; vertex whitish grey. Collar brown, thorax whitish grey; the patagia shaded with fuscous. Abdomen brown dorsally shaded with grey at middle. Wings pale slate-grey; cilia light brown with darker shadings. Fore wings: base of costa brown limited by a wavyly inbent black line, followed by a clear grey shade; an antemedial faint brownish shade originating from a black costal spot, followed by a finer clear grey line and then an oblique black spot on costa; costa medially brown; a fuscous streak on discocellular, followed by a clear grey line edged with dark brown, outcurved, lunular to middle of inner margin; postmedial clear grey inwardly preceded by a broad fuscous shade on costa, a smaller shade at vein 4, and short streaks on veins 5, 2, fold, and submedian, outwardly finely edged with brown, this line is inbent on costa, slightly outbent, and somewhat wavy; subterminal line lunular dentate, whitish grey, crossing a fuscous shade between veins 5 and 4, which are terminally brown, and preceded by a brown shade from vein 3 to inner margin; termen partly shaded with fuscous, the tips of veins 2 and 6 also brown. Hind wings crenulate, with lines corresponding to fore wings; the postmedial preceded by a fuscous shade between veins 3 and 5; the subterminal preceded by brownish shades; terminal brown shades, except space between veins 3 and 4 which is whitish grey. Wings below dull grey. Fore wings: a dark line from costa across black discocellular streak; a fuscous postmedial shade, broad on costa where it is preceded by a short line, interrupted from vein 6 to near 4, with only a spot on vein 5. Hind wings: a faint antemedial and medial line; the postmedial broad, fuscous, angled between veins 4 and 3.

Expanse 24 mm.

Hab. Juan Vinas.

Eupithecia tenebricosa, sp. n.

♂. Palpi, head, and collar whitish buff. Thorax and abdomen dark purplish brown. Fore wings brown, basal half tinged with purple, the lines and shades fuscous brown; basal and subbasal lines fine, outcurved, followed by a spot on costa, and smaller shade in cell; antemedial fine, outangled in cell, and wavyly inbent, followed by a broader parallel shade; a round black spot at end of cell crossed by an outcurved line; postmedial shade broad, followed by a fine line punctiform on veins; subterminal greyish, fine,

preceded by a broad dark shade and followed by fuscous streaks on veins ; no terminal line ; cilia brown mottled with fuscous brown. Hind wings brown, paler on costa ; basal, antemedial, and medial lines on inner margin ; postmedial reaching costa ; outer margin broadly darker ; the subterminal whitish brown. Wings below paler. Fore wings : a fuscous streak on discocellular ; postmedial fine, followed by a broad fuscous shade, not reaching inner margin ; subterminal broad, paler. Hind wings : basal and medial lines, the latter crossing a dark spot on discocellular ; postmedial broad, fuscous on costa ; a broad subterminal brown shade ; terminal brown shadings.

Expanse 19 mm.

Hab. Poas.

Eupithecia tenera, sp. n.

♂. Body and wings white faintly tinged with olive-grey. Fore wings : basal fourth of costa narrowly fuscous grey ; a similar triangular spot medially on costa, darker-edged, its apex formed by a fuscous-brown spot on discocellular ; a subterminal clearer white dentate line, preceded by faint dark shades on costa and on interspaces between veins 3 and 5 ; a better-marked fuscous point above tornus. Hind wings : a dark discal point ; clearer white antemedial, postmedial, and subterminal shades, the last preceded by some fine dark shadings. Wings below suffused with dark grey, and with black discal spots. Hind wings : the suffusions forming an angled postmedial white shade.

Expanse 15 mm.

Hab. Juan Vinas.

Eupithecia tremula, sp. n.

♀. Head, collar, and thorax white ; a transverse black line on patagia ; thorax shaded behind with light brown. Abdomen white shaded with grey from beyond base ; black dorsal points. Fore wings whitish, the lines consisting of fuscous irrorations forming spots on costa ; costa shaded with pale brown ; subcostal and veins terminally brownish buff ; subbasal line fine, outangled below cell ; three antemedial lines, coarser ; an oblique black streak on discocellular ; a fine medial line beyond cell ; postmedial outbent to vein 6, then wavyly inbent, fuscous, preceded by a broad fuscous grey shade, followed by a fine brown line ; subterminal wavy, white, preceded and followed by fuscous and brown shadings from vein 8 to vein 4, and near inner margin ;

a fine terminal black line; cilia whitish with dark grey spots. Hind wings whitish; some fuscous irrorations at base of inner margin; a spot on discocellular anteriorly; postmedial fuscous streaks on veins, followed by a very fine and faint line; subterminal dentate, well marked, and punctiform on veins; terminal dark shadings and line. Wings below whitish grey, the lines fuscous grey. Fore wings: line across costa and cell thick, followed by a fine line, and broader outcurved postmedial; a subterminal line. Hind wings: basal irrorations; faint antemedial and medial lines; a dark line on discocellular; postmedial with dark streaks on veins; subterminal more heavily shaded on veins.

Expanse 20 mm.

Hab. Juan Vinas, Poas.

Eupithecia turpicula, sp. n.

♂. Palpi and collar brown. Head and thorax fuscous; white spots at base of antennæ; abdomen grey; black dorsal points; base and terminal segment buff. Fore wings grey; irrorations, lines, and shadings brownish, darkest on costa; subbasal and geminate antemedial lines fine, slightly curved; a medial shade, darker-edged, followed by a broad white shade from costa to vein 4, outwardly crossed by a fine dark line, and an oblique line on discocellular; postmedial shade broad; outcurved, followed by a fine line; a subterminal dark shade, partly edged outwardly with whitish scales; terminal dark shades on interspaces; cilia dark brown, with a fine white line at base and whitish spots. Hind wings white; a dark discal point; lines well marked on inner margin; postmedial faint towards costa, partly punctiform; subterminal punctiform; termen shaded with brown; cilia white, with dark spots. Wings below whitish tinged with brownish grey; fuscous lines on discocellular. Fore wings: postmedial shade broad. Hind wings: basal shade broad; medial line curved just beyond cell; postmedial very fine, followed by dark streaks on veins; subterminal and terminal shades almost suffusing.

Expanse 20 mm.

Hab. Turrialba.

Eupithecia valeria, sp. n.

♂. Antennæ pubescent. Wings broad. Body and wings buff-brown; some black irrorations on thorax behind; dorsal black points on abdomen not reaching base. Fore wings:

an interrupted fuscous streak on subcostal; a fine black sub-basal line; antemedial fine, curved on costa, inbent, preceded by some fuscous irrorations and followed by a faint medial line; an outbent line to black discal point; some yellow-brown shading above median at end of cell; black irrorations beyond cell; postmedial fuscous, slightly outcurved to vein 6, then inbent, outwardly edged with whitish, and a fine black lunular line; outer space broadly clearer brown, divided by the subterminal white line, which interrupts some fuscous shadings on interspaces; traces of an interrupted terminal black line; cilia darker grey, with brownish spots. Hind wings: some black irrorations at base of inner margin; a black discal point; postmedial line distinct; marginal shadings crossed by a faint subterminal whitish line. Wings below bone-colour; black discal points; a postmedial fuscous line close to cell, distinct; a subterminal line and terminal fuscous shade; traces of an antemedial line.

Expanse 16 mm.

Hab. Juan Vinas.

Near *E. orsetilla*, Dr.

Eupithecia venusta, sp. n.

♀. Head, thorax, base, and two terminal segments of abdomen white. Collar and abdomen medially orange-brown, dorsal black points on abdomen. Wings white. Fore wings: basal third of costa orange-brown; a subbasal cluster of black scales below subcostal, some scattered black scales below it, and a few beyond on subcostal; a broad orange-brown medial incurved fascia, interrupted in and below cell by fuscous irrorations and edged on extreme costa with fuscous; a broad similar shade extends from the fascia along veins 3 and 4 to termen, bifurcating to tornus and vein 5, enclosing a terminal white spot; these branches partly edged with fuscous scales; veins 4 and 5 terminally black, with subterminal white points; a fine irregular black line encloses a white spot beyond cell; an orange-brown subterminal spot on costa; a terminal black line. Hind wings: a broad orange-brown medial shade not reaching costa, irrorated with fuscous on inner margin, forming three lines; a small cluster of black scales above anal angle; an oblique orange shade from above vein 3 to termen at angle; a terminal black line; the outer margin produced at vein 3. Wings below shaded with grey, especially the fore wing, which has a black discocellular line, and fine postmedial, outer, and subterminal darker lines. Hind wings: an ante-

medial, medial, and subterminal line ; a dark discal point ; the terminal line black.

Expanse 19 mm.

Hab. Juan Vinas.

Eupithecia vilis, sp. n.

♀. Body dark grey ; segmental black lines on abdomen. Fore wings greyish brown, irrorated with fuscous brown ; lines mostly very indistinct and not traceable ; antemedial apparently outcurved ; a dark spot medially on costa and dark shade on discocellular ; the median shaded with buff between veins 3 and 4 ; postmedial wavyly outcurved, punctiform on veins, followed by a fine whitish-grey line, and another series of dark points ; subterminal distinct, whitish, lunular dentate ; terminal dark grey triangular shadings, but no line ; cilia mottled with whitish. Hind wings similar ; veins 2 and 3 more darkly irrorated ; the lines somewhat punctiform. Wings below paler, without irrorations, the lines faintly marked ; a terminal darker shade on hind wings.

Expanse 19 mm.

Hab. Peas.

Nearest *E. summissa*, Schaus, but with a brown tinge ; the discocellular more vertical.

Eupithecia viperea, sp. n.

♀. Body greyish, with darker irrorations ; a transverse black line on second segment of abdomen. Fore wings greyish, more darkly irrorated, base of costa fuscous ; traces of fine darker lines ; a broad, outcurved, wavy black fascia just before middle edged with whitish grey ; a dark streak on discocellular ; postmedial line whitish, inwardly shaded with dark brown, outwardly edged by a fine dark line and then with light brown and another fine dark line ; the subcostal and all the veins terminally light brown ; subterminal white, interrupted by veins and partly shaded with dark brown ; a terminal dark line. Hind wings : a dark streak on discocellular ; traces of lines, well marked on inner margin ; the subterminal better defined, fuscous grey, dentate ; a terminal dark shade interrupted by line. Wings below brownish white ; dark streaks on discocellular. Fore wings : the postmedial and subterminal outcurved, brownish. Hind wings : an antemedial, medial, and two postmedial lines ; a subterminal lunular line. Easily distinguished from *E. contexta*, Schs., by the veins on fore wings being all light brown

terminally and by the whiter hind wings and different markings below.

Expanse 23 mm.

Hab. Poas.

Eupithecia vitans, sp. n.

♂. Body and fore wings pale bistre; abdomen dorsally shaded with brown. Fore wings: some fuscous-brown irrorations below cell, at end, just beyond cell, and at base of inner margin; a black spot on discocellular; the lines not traceable except on costa; some shining whitish irrorations at end of cell and postmedially; the subterminal consisting of similar scales forming a dentate line, preceded by small fuscous shades; the outer margin somewhat darker; an interrupted dark terminal line. Hind wings whitish; a black discal spot; black irrorations forming lines on inner margin; a grey postmedial shade and slightly darker subterminal and terminal shades. Wings below white; a terminal dark brown line with whitish points at veins. Fore wings: black basal and antemedial shades on costa; a brown costal spot above the black discocellular spot; a fine brown postmedial line originating from a black costal spot; subterminal shade brown, on costa black. Hind wings: brown irrorations at base; a black discal spot; postmedial line punctiform; a narrow subterminal shade.

The female is rather darker.

Expanse, ♂ 16 mm., ♀ 20 mm.

Hab. Juan Vinas, Tuis, Cachi.

Dochephora discordans, sp. n.

♂. Antennæ simple. Palpi light reddish brown. Body brown shaded with fuscous. Fore wings very broad terminally; costal margin slightly sinuous; underneath with a vesicle between veins 2 and 3, filled with short hairs; a larger smooth vesicle below vein 2; vesicles above black, wing otherwise greyish brown; an oblique fuscous streak on discocellular; a postmedial darker brown vertical line and subterminal similar broader line, slightly curved. Hind wings small; costal margin arched; outer margin rounded; a long vesicle on upper side below costa containing a tuft of long whitish hairs; wings mostly dark grey, the inner margin brown, with darker subterminal and terminal lines. Wings below brownish grey; faint traces of lines on fore wings.

♀. Thorax grey; body otherwise pale yellow-brown, with

dark brown shadings, forming segmental lines on abdomen. Wings pale greyish brown, irrorated with brown, and short, shining, curly scales; antemedial and medial lines fine, darker brown; postmedial line broader, fuscous brown; subterminal similar, outwardly edged with greyish white; a terminal line interrupted by veins. Fore wings: the subcostal and base of costa yellowish brown; a small black spot on discocellular; the veins terminally lighter brown. Wings below smoky grey, the lines darker, the postmedial most distinct; black lines on discocellular, very fine on hind wings.

Expanse, ♂ 14, ♀ 18 mm.

Hab. Guapiles, Juan Vinas.

Tithraustes longipennis, sp. n.

♀. Abdomen fuscous. Head mottled with white; an orange spot on shoulders; a whitish dorsal line on abdomen; abdomen ventrally white. Fore wings fuscous brown; a broad white line below cell from base, not reaching vein 2; a semihyaline white fascia beyond cell from stalk of veins 3 and 4 to stalk of veins 7-10; a large white spot below vein 3 to submedian near termen; a small terminal white spot on vein 5. Hind wings black; a semihyaline white fascia below cell, crossed by vein 2; a white spot beyond cell.

Expanse 46 mm.

Hab. Juan Vinas, Limon.

Hyrmina cærulescens, sp. n.

♂. Palpi black. Frons white, black medially. Body blue-black; abdomen ventrally white. Fore wings black shot with blue, brighter on inner margin; a whitish streak above submedian, not reaching termen; a hyaline streak in cell and a very slight streak at base below cell; a broad hyaline fascia beyond cell from subcostal to submedian; subapical hyaline spots between veins 5 and 8. Hind wings shot with bright blue; a hyaline streak in and below cell, not reaching termen; all the wings black across hyaline spaces. Wings below black, the hind wings with a broad white streak on costa to middle, and the inner margin broadly whitish streaked with fuscous.

Expanse, ♂ 28, ♀ 33 mm.

Hab. Carillo.

Uraniidæ.

Psamathia sordidata, sp. n.

♂. Body and wings grey, the latter finely and thinly striated with brown. Fore wings: the extreme costa striated with fuscous; inner line fine, dark brown, outbent from costa; outer line broader, outwardly narrowly shaded with lighter brown, slightly angled below vein 6; a small subterminal black spot between veins 6 and 7; cilia brown, darkest at base. Hind wings: outer line deeply angled on vein 4, geminate, divided by a lighter brown line; outer margin paler-shaded; a terminal brown shade, outwardly finely edged with whitish grey, the shade interrupted between veins 4 and 3; terminal fuscous-brown spots below vein 4 and vein 3. Underneath dull grey without markings.

Expanse 29 mm.

Hab. Guapiles, La Florida, Tuis.

Very close to *P. parallelaria*, Warr., which has the outer line vertical; also larger.

Epiplema æolis, sp. n.

♂. Body and wings white. Fore wings: the base faintly tinged with pale brown; costal margin irrorated with grey; some dark brown irrorations forming an outer row of small spots; a few subterminal dark brown scales. Hind wings: some antemedial irrorations; the postmedial line better defined, macular; a cluster of dark scales above anal angle; a few subterminal and terminal brown scales.

♀. Body and wings white; more numerous irrorations forming a fine antemedial line; some medial irrorations; the postmedial line geminate, with a small spot above vein 4 on fore wings; brown striæ at tornus of fore wings and subterminally on hind wing.

Expanse 21 mm.

Hab. Guapiles.

Near *E. adjectaria*, Wlk.

Epiplema cononaria, sp. n.

♀. Body and wings grey faintly tinged with brown. Fore wings: a few darker irrorations; extreme costa with small fuscous-brown spots; a fine antemedial reddish-brown line, outcurved, touching a small brown spot on subcostal; a large fuscous spot close beyond cell; postmedial line reddish brown, fine, but broader on costa, slightly inbent; a terminal

reddish-brown shade from vein 4 to apex, with marginal black points; cilia light brown, spotted with fuscous. Hind wings darker-shaded; antemedial and postmedial lines dark brown, coarser, macular, shaded with buff; the medial space with fuscous striæ; outer and subterminal fuscous striæ; termen narrowly shaded with brown; cilia whitish buff, divided by a brown line. Wings below grey, with a few dark striæ.

Expanse, ♂ 14-20, ♀ 17-21 mm.

Hab. Juan Vinas, Cachi, San José, Poas.

The largest specimens are from Poas.

Epiplema proclivaria, sp. n.

♀. Body and wings brown; palpi grey; frons black. Fore wings: a few dark striæ on basal third; a dark brown medial line, heavier-shaded on margins, outcurved, almost angled at vein 4; an outer inbent fuscous shade, outwardly shaded with dark brown, and followed by a small white spot between veins 4 and 5, below vein 2 outcurved, filled in with fuscous brown, and outwardly edged by a short white line; a small marginal fuscous spot between veins 5 and 6. Hind wings: inner margin paler-shaded; antemedial line outcurved, dark brown; postmedial line dark brown, outwardly edged by a fine whitish line; outer margin produced between veins 6 and 7. Wings below brown, with a few fuscous irrorations; a very fine darker postmedial line.

Expanse 32 mm.

Hab. Poas.

Near *E. lacerataria*, Wlk.

Epiplema lustrata, sp. n.

♂. Frons black. Vertex yellow. Body and wings light grey. Fore wings: some scattered black irrorations; medial line outcurved, fine, light reddish brown; an outer fascia, reddish brown on costa to vein 5, then darker grey, outwardly defined by a fine reddish line and irrorated with black, below vein 2 reddish, broadly edged with fuscous brown, and suffusing with medial line; a subterminal fuscous shade from vein 3 to tornus; a terminal reddish-brown shade at excision below apex, inwardly edged by a black line; cilia black on excision. Hind wings: base and inner margin whitish grey, otherwise reddish brown; a few fuscous irrorations; a medial dark brown line from vein 3 to inner margin; outer line angled between veins 4 and 3, white on brown space, dark

brown on inner margin ; a marginal black point below vein 4, a dark brown line from vein 4 to apex. Fore wings below fuscous grey, the margins buff ; subterminal black striæ. Hind wings below whitish yellow ; some black striæ, chiefly near apex.

Expanse 20 mm.

Hab. Juan Vinas.

Epiplema chremesaria.

♀. Frons black, vertex and body fuscous brown, the collar and patagia tinged with steel-blue. Fore wings fuscous to outer line, tinged with steel-blue and mottled with dark brown striæ ; lines brown ; medial line angled at vein 4, inwardly edged from cell to inner margin with whitish scales ; outer line outwardly edged with whitish scales ; terminal space light brown, with fuscous striæ ; a fuscous shade above tornus and terminally from veins 3-7, with marginal dark brown spots above and below vein 5. Hind wings similar, the terminal space dark brown ; inner line downbent to below middle of inner margin, inwardly edged by a whitish line ; postmedial outangled between veins 3 and 4, outwardly white-edged ; a greyish shade crossed by brown striæ at anal angle. Fore wings below fuscous grey to outer line, the terminal space brown, with dark striæ. Hind wings below pale brown, shaded with fuscous at base, crossed by dark striæ.

Expanse 24 mm.

Hab. Laguna.

Vein 5 on fore wings is from a little below upper angle.

Epiplema? similaria, sp. n.

♂. Frons fuscous. Vertex, collar, and thorax grey-brown. Abdomen fuscous grey. Fore wings very broad terminally, margin excavated between veins 6 and 4 ; apex blunt, light brown, thinly irrorated with fuscous brown ; inner margin shaded with fuscous grey ; an angled coarse fuscous-brown line from costa before middle to below vein 4 at its base, then upbent to costa. Hind wings small, fuscous grey, the outer half covered with coarse ochreous scales. Wings below paler ; the fore wings with irrorations only.

Expanse 24 mm.

Hab. Juan Vinas.

Veins 3 and 4 on hind wings are stalked.

Near *E. carilla*, Druce.

Antiplema clipearia, sp. n.

♂. Head fuscous brown. Collar and thorax in front dark grey-brown; thorax behind paler-shaded. Abdomen dark grey-brown. Wings light brown, with some darker irrorations. Fore wings: costal margin to postmedial broadly dark grey; a dark brown line from just before middle of costa, outbent to below vein 3, then upbent to costa, on which it is slightly incurved, outwardly edged where upturned with whitish-grey striæ; a similar curved line on inner margin beyond middle, the space within it darker-shaded; costa subterminally fuscous grey and some darker shadings below it; a marginal wavy black line, not reaching tornus, inwardly edged with whitish-grey striæ; a terminal whitish line. Hind wings: medial space broadly fuscous grey, limited by the postmedial brown line, outwardly edged with whitish striæ and inwardly by a dark brown antemedial line, preceded by a paler brown shade on inner margin; some dark grey and whitish terminal striæ and faint terminal fuscous points. Fore wings below grey-brown, with short darker striæ, the hind wings paler.

Expanse 15 mm.

Hab. Juan Vinas, San José.

Fore wings: veins 6 and 7 from upper angle; 8 and 9 on long stalk from middle of cell; 10 close to it; 11 approximating costal vein.

Gathynia latonaria, sp. n.

♀. Frons and collar dark purplish brown. Vertex white. Thorax and base of abdomen light greyish brown, abdomen otherwise greyish, thickly irrorated with fuscous brown. Wings rust-brown; cilia darker, with a pale line at base. Fore wings: the costal margin broadly shaded with dark grey and fuscous striæ; fuscous striæ near base; inner line fine, brown, outangled at vein 4, bifurcating at vein 2, and widely diverging, enclosing a darker space on inner margin; outer line dark brown, outcurved, suffusing with branch of medial line below vein 2; subterminal and terminal black irrorations; a small black spot at apex and one below it, inset; a fine terminal fuscous line. Hind wings: a very few black irrorations; lines dark brown; inner line twice outcurved; outer line downbent and curved, outwardly finely edged with white scales; termen narrowly darker; a black spot edged with grey below vein 4. Fore wings below fuscous grey, shaded with buff on costa and light brown at

tornus. Hind wings below buff, terminally shaded with brown; some scattered black irrorations. On fore wings vein 5 is from middle of discocellular, 6 and 7 from upper angle, 8 and 9 on long stalk from cell close to 10 and 11, which are free and not stalked as in typical *Gathynia*. The hind wings are toothed at veins 4, 6, and 7.

Expanse 21 mm.

Hab. Juan Vinas.

XLII.—*Descriptions and Records of Bees.*—LI.
By T. D. A. COCKERELL, University of Colorado.

Hylæoides waterhousei, sp. n.

♀.—Length about $13\frac{1}{2}$ mm.

A species with deep red markings, close to *H. concinnula*, Ckll., but pale area on clypeus entirely red, covering the whole of upper part of clypeus (but not extending beyond), and ending below as a broad lobe of colour in middle of clypeus, not reaching lower margin; scutellum and post-scutellum red except the narrow anterior border, which in the case of the scutellum is notched in the middle by the red; first abdominal segment with at least the basal half black; tegulæ very dark rufo-piceous. The broad red band on the third abdominal segment is greatly narrowed in the middle; ventral white band very well developed; prothorax above entirely and broadly red, but tubercles black.

Although this has a very strong superficial resemblance to the common *H. concinna* (Fab.), it is very distinct structurally by the very coarse deep punctures of the thorax and the more finely and shallowly but still very well punctured abdomen.

Hab. S. Australia (*Waterhouse*) (Nat. Mus. Victoria, 116).

Other specimens of *Hylæoides* from the Victoria Museum are all *H. concinna*, as follows:—(1) males, Raymond Isl., 247, 246; (2) females, Melbourne (*F. R. Spry*, 117); no loc., 248; Point Lonsdale, January (*I. Akershan*, 249).

Euryglossa furcifera, sp. n.

♀.—Length a little over 4 mm.

Bright chrome-yellow, marked with black; face broad, quite without dark markings; apical half of mandibles



Schaus, William. 1913. "XLI.—New species of Heterocera from Costa Rica.—XXI." *The Annals and magazine of natural history; zoology, botany, and geology* 11, 361–387. <https://doi.org/10.1080/00222931308692623>.

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