

their organization, cannot possibly contribute to the formation of a vacuum.

The foregoing solution of this interesting physiological problem, I have reason to believe is applicable not to insects and Spiders alone, but also to some species of reptiles.

Catalogue of the Heterocerous Lepidopterous Insects collected at Sarawak, in Borneo, by MR. A. R. WALLACE, with Descriptions of New Species. By FRANCIS WALKER, Esq., F.L.S.

[Continued from p. 84.]

Gen. ARTIGISA, n. g.

Mas. *Corpus* vix robustum. *Proboscis* conspicua. *Palpi* subarcuati, verticem paullo superantes; articulus 3^{us} lanceolatus, 2^o brevior. *Antennæ* setis longiusculis instructæ. *Abdomen* alas posticas non superans; fasciculus apicalis parvus, compressus. *Pedes* robusti, pilosi, femoribus tibiisque anticis dense pilosis, calcaribus longis. *Alæ* anticæ apice subrotundatæ, costa recta, margine exteriori vix convexo sat obliquo.

Male. Body hardly stout. *Proboscis* distinct. *Palpi* slightly curved, rising a little higher than the vertex; 3rd joint lanceolate, much shorter than the 2nd. *Antennæ* with rather long bristles. *Abdomen* not extending beyond the hind wings; apical tuft small, compressed. *Legs* stout, pilose; fore femora and fore tibiæ densely pilose; hind tibiæ with four long spurs. *Wings* moderately broad. *Fore wings* slightly rounded at the tips; costa straight; exterior border hardly convex, rather oblique.

354. ARTIGISA NIGROSIGNATA, n. s. *Mas.* Ochraceo-cinerea, alis fascia media e atomis nigris, lineis exteriori et submarginali undulatis lunulisque marginalibus nigris, alis anticis lituris costalibus, plaga basali fasciaque exteriori nigris.

Male. Cinereous, tinged with dull ochraceous, paler beneath. *Fore legs* partly black. *Wings* with a few black speckles, which form a very incomplete middle band; exterior line black, slender, distinct, undulating, bent in the fore wings; submarginal line undulating, much less distinct; submarginal lunules black, forming a festoon with the marginal line. *Fore wings* with black marks along the costa, and with a black basal patch formed of confluent speckles; a black band, broadest by the costa, partly contiguous to the outer side of the exterior line, and traversing the submarginal line; this band is diffuse hindward, and emits a diffuse streak from its exterior side. *Length of the body* 4 lines; of the wings 10 lines.

Gen. VEIA, n. g.

Mas. *Corpus* vix robustum. *Proboscis* conspicua. *Palpi* compressi,

verticem superantes; articulus 2^{us} latissime fimbriatus; 3^{us} minimus. *Antennæ* latissime pectinatae, apices versus simplices. *Abdomen* cristatum, alas posticas perpaullo superans. *Pedes* sat graciles, femoribus tibiisque posterioribus subfimbriatis, calcaribus longissimis. *Alæ* anticae elongatae, apice rotundatae, costa recta.

Male. Body hardly stout. Proboscis distinct. Palpi compressed, rising rather higher than the vertex; 2nd joint very broadly fringed; 3rd very small. *Antennæ* very broadly pectinated to beyond half the length, bare from thence to the tips. *Abdomen* crested, extending very little beyond the hind wings. Legs rather slender; posterior femora and tibiae slightly fringed; hind tibiae with four very long spurs. Wings elongate, moderately broad. Fore wings rounded at the tips; costa straight; exterior border very oblique, very slightly convex.

355. *VEIA HOMOPTEROIDES*, n. s. *Mas.* Ferrugineo-fusca, cinereo suffusa, alis lineis plurimis denticulatis punctisque marginalibus nigris, fasciis duabus cinereis.

Male. Ferruginous brown, with a cinereous tinge, more cinereous beneath. Wings with several denticulated oblique slight black lines and with black marginal points; two cinereous bands, one exterior, the other marginal and less distinct. Length of the body 5 lines; of the wings 14 lines.

Fam. HYPOGRAMMIDÆ, *Guén.*

Gen. BRIARDA, *Walk.*

356. *Briarda decens*, *Walk. Cat. Lep.* 3rd ser. 1098.
Inhabits also Hindostan.

Gen. GADIRTHA, *Walk.*

357. *Gadirtha inexacta*, *Walk. Cat. Lep.* 3rd ser. 1102.
Inhabits also Hindostan.

358. *GADIRTHA CHALYBEA*, n. s. *Fæm.* Obscure ferrugineo-fusca, abdomine subcristato alas posticas paullo superante, alis anticis chalybeo tinctis, lineis nonnullis denticulatis lunulisque marginalibus nigris, striga basali testacea, alis posticis cupreo-fuscis.

Female. Dark ferruginous brown. Third joint of the palpi linear, shorter and more slender than the 2nd. *Abdomen* with slight crests, extending a little beyond the hind wings. Fore wings with a chalybeous tinge and with several transverse black denticulated lines, between some of which the ground-hue is rather paler than it is elsewhere; a testaceous basal streak dilated at the base, near which it is interrupted; marginal lunules black. Hind wings cupreous brown. Length of the body 8 lines; of the wings 20 lines.

359. *GADIRTHA DIFFUNDENS*, n. s. *Fæm.* Obscure fusca, palpis ru-

fescentibus, abdomine basi cinereo, alis æneo-fuscis, anticis apice rotundatis, vitta costaque nigro-purpureis, lineis quatuor undulatis indistinctis obscure fuscis, puncto basali punctoque discali ochraceis, linea submarginali cervina.

Female. Dark brown. Palpi reddish, obliquely ascending; 3rd joint lanceolate, about half the length of the 2nd. Abdomen cinereous towards the base, extending somewhat beyond the hind wings. Legs rather short and stout. Wings rather narrow, æneous brown. Fore wings rounded at the tips, blackish purple along the costa and along the interior border, and with a middle stripe of the same hue; four oblique, undulating, indistinct, dark brown lines; an ochraceous point in the disk near the base, and another representing the reniform mark; submarginal line fawn-colour, irregular, most distinct in front; costa straight; exterior border convex, very oblique. Length of the body 7 lines; of the wings 16 lines.

360. *GADIRTHA POLYGRAPHA*, n. s. *Fæm.* Obscure ferrugineo-fusca, abdomine alas posticas vix superante, alis anticis longis sat latis cinereo subinctis apice subrotundatis, fasciis duabus nigris abbreviatis, lineis interioribus undulatis subdentatis lineisque exterioribus cuneatis nigris, alis posticis fuscis.

Female. Very dark ferruginous brown, slightly paler beneath. Third joint of the palpi much shorter than the 2nd. Abdomen hardly extending beyond the hind wings. Wings long, rather broad. Fore wings partly tinged with cinereous, slightly rounded at the tips; interior part with some black undulating and slightly dentate lines; exterior part with several black cuneiform lines; two interior black bands, much abbreviated towards the interior border; 2nd band terminating in an elongated whitish dot; marginal lunules black; costa very slightly convex. Hind wings brown; fringe with the tip cinereous. Length of the body 8 lines; of the wings 21 lines.

361. *GADIRTHA FERROMIXTA*, n. s. *Mas.* Rufescenti-ferruginea, thorace nigro cinereoque consperso, alis anticis subdentatis sat angustis vix acutis, fasciis cinereis ex parte nigro marginatis lineas ferrugineas undulatas includentibus, striga costali subapicali lunulisque marginalibus nigris, alis posticis obscure cinereis.

Male. Reddish ferruginous, cinereous beneath. Palpi porrect; 3rd joint much shorter than the 2nd. Antennæ setulose. Thorax with black and cinereous speckles. Abdomen cinereous. Tibiæ banded with black. Wings slightly dentate, rather narrow. Fore wings hardly acute, with some irregular cinereous iridescent partly black-bordered bands, which include some ferruginous undulating lines; a longitudinal black streak near the tip of the costa; marginal lunules black. Hind wings dark cinereous. Length of the body 7 lines; of the wings 18 lines.

362. *GADIRTHA QUADRINOTATA*, n. s. *Fæm.* Obscure ferrugineo-fusca, abdomine alas posticas perpaullo superante, alis anticis latius-

culis vix dentatis, lineis nonnullis denticulatis pallide cervinis nigricante marginatis, spatio medio purpurascete maculam nigram includente, alis posticis obscure fuscis.

Female. Dark ferruginous brown, cinereous brown beneath. Palpi rather slender, not rising higher than the vertex; 3rd joint a little less than half the length of the 2nd. Abdomen extending very little beyond the hind wings. Wings hardly dentate, rather broad. Fore wings hardly acute, with several denticulated pale fawn-coloured blackish-bordered lines; middle part purplish-tinged, including a black discal hindward spot; some whitish costal subapical points; marginal lunules elongated, dark brown. Hind wings dark brown. Length of the body $4\frac{1}{2}$ lines; of the wings 12 lines.

363. *GADIRTHA METAPHÆA*, n. s. *Fœm.* Ochraceo-ferruginea, alis anticis elongatis apice subrotundatis, lineis nonnullis testaceis dentatis nigro punctatis, striga basali postica lata fusca, fimbria testacea nigro notata, alis posticis nigro-fuscis, fimbria extus cinerea.

Female. Ochraceous ferruginous. Body pale beneath. Third joint of the palpi full half the length of the 2nd. Abdomen cinereous. Wings elongate. Fore wings slightly rounded at the tips, with several testaceous dentate transverse lines, some of whose angles are pointed with black; interior border with a short broad brown streak at the base; fringe testaceous, with black marks. Hind wings blackish brown; fringe cinereous exteriorly. Length of the body 7 lines; of the wings 16 lines.

364. *GADIRTHA?* *SEMIFERVENS*, n. s. *Fœm.* Pallide straminea, abdomine alas posticas paullo superante, alis anticis vix acutis nigro subconspersis, lineis duabus cervinis undulatis non obliquis, puncto basali, punctis duobus discalibus lineaque submarginali punctulari nigris, costa convexa, alis posticis extus rufescentibus.

Female. Pale straw-colour. Palpi rising higher than the vertex; 3rd joint lanceolate, about half the length of the second. Abdomen extending a little beyond the hind wings. Hind tibiæ with four very long spurs. Wings moderately broad, with blackish marginal points. Fore wings hardly acute, thinly and minutely black-speckled; interior and exterior lines fawn-coloured, undulating, not oblique; submarginal line composed of black points; a black basal point and two black discal points; costa convex; exterior border moderately oblique; under side reddish. Hind wings reddish above exteriorly. Length of the body 5 lines; of the wings 13 lines.

365. *GADIRTHA?* *DISCIGERA*, n. s. Cervina, alis anticis rufescente tinctis, apice subrotundatis, linea interiore indistincta, striga discali, linea exteriori arcuata cinereo marginata lineaque submarginali interrupta nigris, costa vix convexa, alis posticis cinereis.

Fawn-colour, cinereous beneath. Fore wings reddish-tinged, slightly rounded at the tips, with a black discal streak, beyond which there is a black much outward-curved line, which is bordered with cinereous

on the outer side, and has between it and the exterior border a black submarginal very incomplete line; interior line black, denticulated, indistinct; costa hardly convex; exterior border slightly convex, very oblique. Hind wings cinereous. Length of the body 5?; of the wings 14 lines.

Gen. PHUMANA, n. g.

Fœm. *Corpus* crassum. *Proboscis* brevis. *Antennæ* validæ, simplices. *Abdomen* convexum, alas posticas longe superans. *Pedes* breves, robusti, femoribus tibiisque posticis densissime pilosis. *Alæ* elongatæ, sat angustæ; anticæ apice rotundatæ, costa recta, margine exteriore convexo.

Female. Body thick. Proboscis short. Antennæ stout, simple. Abdomen convex, slightly tapering from the base to the tip, extending far beyond the hind wings. Legs short, stout; hind femora and hind tibiæ most densely clothed with long hairs; hind tibiæ with four stout spurs. Wings elongate, rather narrow. Fore wings rounded at the tips; costa straight; exterior border convex, moderately oblique.

Allied to *Gadirtha*.

366. PHUMANA CANESCENS, n. s. *Fœm.* Cinerea, thorace fascia ferruginea, alis anticis fusco conspersis et nebulosis, lineis cinereis denticulatis, litura reniformi ferrugineo-rufa subrotunda nigro punctata, punctis duobus basalibus nigris, litura basali postica ferrugineo-rufa, alis posticis cinereo-fuscis, spatio marginali ferrugineo-rufescente.

Female. Cinereous, darker beneath. Thorax with a ferruginous band in front. Fore wings minutely brown-speckled, partly shaded with brown, the latter hue with denticulated transverse cinereous lines; reniform mark ferruginous red, nearly round, with a black point; two other black points in the disk nearer the base; a ferruginous-red mark by the base of the interior border, and a tinge of the same hue along the costa; marginal line brown, zigzag. Hind wings cinereous brown, with a ferruginous-red tinge about the middle part of the exterior border. Length of the body $7\frac{1}{2}$ lines; of the wings 16 lines.

Gen. CHUDUCA, n. g.

Fœm. *Corpus* sat robustum. *Proboscis* brevis. *Palpi* decumbentes, compressi; articulus 2^{us} apice latior; 3^{us} parvus. *Antennæ* glabræ, graciles. *Abdomen* alas posticas paullo superans. *Pedes* sat validi; tibiæ posticæ calcari apicali longissimo. *Alæ* anticæ elongatæ, angustæ, acutæ, costa vix convexa, margine exteriore subconvexo perobliquo.

Female. Body moderately stout. Proboscis short. Palpi decumbent, compressed, not longer than the breadth of the head; 2nd joint widened towards the tip; 3rd conical, minute, less than one-fourth of the length of the 2nd. Antennæ smooth, slender. Abdomen extending a little beyond the hind wings. Legs moderately long, and stout hind tibiæ with four spurs; one of the apical pair very long.

Wings elongate. Fore wings narrow, acute; costa hardly convex; exterior border slightly convex, extremely oblique. Hind wings moderately broad.

Allied to *Gadirtha*.

367. *CHUDUCA PYRALOIDES*, n. s. *Fam.* Nigricans, alis anticis chalybeo subinctis plaga apud marginem interiorem pallida nigro conspersa, lineis nigris denticulatis valde indistinctis, punctis basalibus testaceis, linea duplici marginali e punctis albis, alis posticis æneofuscis basi cinereis subhyalinis.

Female. Blackish. Abdomen and underside dark cinereous. Fore wings slightly tinged with chalybeous blue; a pale black-speckled patch by the interior border; transverse lines black, denticulated, very indistinct; a few testaceous points in the disk towards the base, and a double row of white points along the exterior border. Hind wings æneous brown, cinereous and slightly hyaline towards the base. Length of the body 5 lines; of the wings 14 lines.

Gen. *CIASA*, n. g.

Fam. *Corpus* sat robustum. *Proboscis* conspicua. *Palpi* porrecti, compressi; articulus 2^{us} pilosus; 3^{us} lanceolatus, 2ⁱ dimidio non longior. *Antennæ* graciles, glabræ. *Abdomen* lanceolatum, alas posticas perpaullo superans, basi subcristatum. *Pedes* læves, sat validi; tibiæ posticæ calcaribus longis. *Alæ* longiusculæ; anticæ acutæ, costa recta, margine exteriore perobliquo.

Female. Body moderately stout. *Proboscis* distinct. *Palpi* porrect. compressed, about as long as the breadth of the head; 2nd joint pilose; 3rd lanceolate, about half the length of the 2nd. *Antennæ* slender, bare. *Abdomen* lanceolate, extending very little beyond the hind wings, slightly crested towards the base. *Legs* smooth, moderately long and stout; hind tibiæ with four long spurs. *Wings* rather long, moderately broad. Fore wings acute; costa straight; exterior border very oblique.

Allied to *Gadirtha*.

368. *CIASA PUSTULIFERA*, n. s. *Fam.* Ferrugineo-fusca, alis anticis lituris tribus discalibus pallide viridescentibus, lineis nigris dentatis interruptis pallido marginatis, striga obliqua marginali pallide cervina, lunulis marginalibus nigris pallido marginatis, fimbria cinerea pallido notata, alis posticis æneo-fuscis.

Female. Ferruginous brown. Abdomen and underside cinereous brown. Fore wings with three pale dull greenish marks in the disk, and with some black, pale-bordered, dentate, irregular, and interrupted lines; an oblique pale fawn-coloured streak by the fore part of the exterior border; marginal lunules black, pale-bordered; fringe dark cinereous, with pale marks; costa with four pale points towards the tip. Hind wings æneous brown; fringe tipped with hoary. Length of the body 5 lines; of the wings 12 lines.

Gen. *CORSA*, *Walk.*

369. *CORSA ABSORBENS*, n. s. *Fœm.* Fusca, alis anticis cervinis albido marginatis, basi, plaga apud angulum interiorem plagaque apicali fuscis nigro conspersis, linea submarginali cana dentata, alis posticis fimbria cinerea.

Female. Brown. Palpi obliquely ascending; 3rd joint less than half the length of the 2nd, with which it forms a slight angle. Fore wings fawn-colour, whitish-bordered with the exception of the base, an apical patch, and a patch by the interior angle; these are brown, speckled with black, and the two patches contain a submarginal dentate hoary line; tips rounded; exterior border convex. Hind wings brown, with a fawn-coloured border; fringe cinereous. Length of the body 6 lines; of the wings 16 lines.

Gen. *CURGIA*, n. g.

Mas. *Corpus* crassum. *Proboscis* conspicua. *Palpi* validi, pilosi, recurvi, verticem superantes; articulus 3^{us} lanceolatus, 2^o brevior. *Antennæ* subsetulosæ. *Abdomen* alas posticas longe superans. *Pedes* breves, robusti, pilosi; tibiæ posticæ calcaribus quatuor longis. *Alæ* anticæ breviusculæ, sat angustæ, apice subrotundatæ, costa margineque exteriore rectis.

Male. Body very stout. *Proboscis* moderately long. *Palpi* stout, pilose, applied to the front, recurved over the vertex; 3rd joint lanceolate, shorter than the 2nd. *Antennæ* very minutely setulose. *Abdomen* extending much beyond the hind wings. *Legs* short, stout, pilose; hind tibiæ with four long spurs. *Wings* rather short. *Fore wings* rather narrow, slightly rounded at the tips; costa and exterior border straight, the latter rather oblique. *Hind wings* moderately broad.

Allied to *Plotheia*.

370. *CURGIA NONAGRICA*, n. s. *Mas.* Testacea, thorace antico fuscescente, alis anticis linea exteriore albida subobliqua vix undulata intus nigro punctata, reniformi angusta indistincta nigricante marginata, alis posticis cinereis semihyalinis.

Male. Testaceous. *Thorax* brownish in front. *Abdomen* and under side pale cinereous. *Fore wings* with a whitish exterior, slightly oblique, hardly undulating line, which is accompanied by black points on its inner side; reniform mark narrow, blackish-bordered, indistinct; marginal points black. *Hind wings* cinereous, semihyaline, slightly iridescent. Length of the body 8 lines; of the wings 16 lines.

Gen. *CROPIA*, *Walk.*

371. *CROPIA ONERATA*, n. s. *Mas.* Nigra, crassa, subtus albida, abdomine fusco-cinereo basi cristato apice nigro alboque cincto late-

ribus albo punctatis, alis anticis purpureo-rufescentibus latiusculis subdentatis, lineis undulatis nigris, spatio marginali glauco-cinereo lineam nigram denticulatam includente, puncto maculaque exteriore discalibus nigris, plaga subcostali squamosa iridescente, alis posticis glauco-cinereis, plaga exteriore squamosa.

Male. Black, very stout, whitish beneath. Palpi white in front, ascending higher than the vertex; 3rd joint shorter than the 2nd. Antennæ stout, minutely setulose. Thorax slightly speckled with cinereous. Abdomen brownish cinereous, extending a little beyond the hind wings, crested towards the base, with a transverse black-and-white line at the base of the tuft, which is reddish; a row of white points along each side. Wings rather broad, slightly dentate, cinereous beneath. Fore wings of a various purplish-reddish hue, with undulating black lines, which are here and there dilated; marginal space glaucous cinereous, intersected by a black denticulated line; an incomplete row of yellow black-bordered marginal points; a black discal point, and an exterior black discal spot; a curved pale line forming a loop with the costa, which has pale points along its exterior parts; a large squamous iridescent subcostal patch. Hind wings glaucous cinereous, with a short black reddish-bordered line, which extends from the interior border to the disk; a patch like that of the fore wings, but narrower and extending from the disk to the fore part of the exterior border; fringe brown, interlined with black, white at each end; under side with a line composed of black dots. Length of the body 10 lines; of the wings 20 lines.

This species has some resemblance to *Hypoetra complens*.

Gen. ASINDUMA, n. g.

Fæm. Corpus robustum, squamosum, læve. Proboscis conspicua. Palpi compressi, vix lati, verticem paullo superantes; articulus 3^{us} lanceolatus, 2^o brevior. Antennæ graciles. Abdomen subcarinatum, alas posticas perpaullo superans. Pedes validi, læves; tibiæ posticæ quadricalcaratæ. Alæ anticæ apice rotundatæ, costa basi subconvexa, margine exteriore subconvexo.

Female. Body stout, squamous, smooth. Proboscis distinct. Palpi compressed, hardly broad, ascending a little higher than the vertex; 3rd joint lanceolate, much shorter than the 2nd. Antennæ slender. Abdomen slightly keeled, extending very little beyond the hind wings. Legs stout, smooth; hind tibiæ with four spurs of moderate length. Wings moderately broad. Fore wings rounded at the tips; costa very slightly convex towards the base; exterior border very slightly convex and oblique.

This genus has some affinity to the *Acontidæ*.

372. ASINDUMA EXSCRIPTA, n. s. *Fæm.* Pallide lutea, palpis extus fusciscentibus, abdomine fusco-cinereo, alis anticis albidis, costa lineis

que undulatis lutescentibus, puncto discali nigro, linea exteriori fusca arcuata extus pallido intus plumbeo marginata, spatio marginali fuscescente lineam pallidam angulosam nigricante marginatam includente, alis posticis cupreo-fuscis.

Female. Dull pale luteous, whitish beneath. Palpi brownish exteriorly. Abdomen brownish cinereous. Fore wings whitish, lutescent along the costa, and with lutescent transverse undulating lines; a black discal point and a brown curved exterior line, which is pale-bordered on the outer side and broadly bordered with plumbeous on the inner side; space beyond the line brownish, including a pale blackish-bordered very zigzag submarginal line. Hind wings cupreous brown. Length of the body $4\frac{1}{2}$ lines; of the wings 11 lines.

Gen. CARISSA, n. g.

Mas. *Corpus* robustum. *Proboscis* brevis. *Palpi* oblique ascendentes, verticem longe superantes; articulus 3^{us} linearis, 2^o paullo brevior et gracilior. *Antennæ* longæ, validæ, setulosæ, pubescentes. *Abdomen* subcompressum, alas posticas sat superans; fasciculus apicalis minimus. *Pedes* vix robusti; tibiæ intermediæ pilis longissimis fimbriatæ; tibiæ posticæ subfimbriatæ. *Alæ* elongatæ; anticæ apice rotundatæ, costa recta, margine exteriori perobliquo.

Male. Body stout. Proboscis short. Palpi obliquely ascending, rising much higher than the vertex; 3rd joint linear, a little shorter and more slender than the 2nd. Antennæ long, stout, setulose, pubescent. Abdomen tapering, slightly compressed, extending rather far beyond the hind wings; apical tuft very small. Legs hardly stout; middle tibiæ thickly fringed along the whole length with extremely long hairs; hind tibiæ slightly fringed with short hairs; spurs of moderate length. Wings elongate, moderately broad. Fore wings rounded at the tips; costa straight; exterior border convex, very oblique.

373. CARISSA COSSOIDES, n. s. *Mas.* Obscure fusca, alis anticis nigro strigatis, plagis duabus purpureo-nigris atro marginatis, 1^a basali, 2^a exteriori.

Male. Dark brown. Abdomen, underside, and wings brownish cinereous. Fore wings with minute transverse black streaks, and with two large purplish-black patches, one near the base, the other exterior, both bordered hindward by a deep-black line. Length of the body 8 lines; of the wings 18 lines.

Gen. MAXILUA, n. g.

Fæm. *Corpus* robustum. *Proboscis* conspicua. *Palpi* sat graciles, verticem superantes; articulus 2^{us} subarcuatus; 3^{us} linearis, brevior. *Abdomen* alas posticas non superans. *Pedes* validi; tibiæ fimbriatæ. *Alæ* anticæ apice rectangulatæ, costa recta, margine exteriori subconvexo.

Female. Body stout. Proboscis distinct. Palpi rather slender, rising higher than the vertex; 2nd joint slightly curved; 3rd linear, much shorter than the 2nd. Abdomen not extending beyond the hind wings. Legs stout; tibiæ fringed; hind tibiæ with four spurs of moderate length. Wings moderately broad. Fore wings rectangular at the tips; costa straight; exterior border slightly convex and oblique.

374. *MAXILUA FRONTALIS*, n. s. *Fœm.* Cinerea, subtus obscure fusca, capite thoraceque antico pallide ochraceis, fronte palpisque obscure fuscis, alis anticis purpureo æneoque nitentibus, lineis tribus fuscis indistinctis subundulatis, alis posticis cupreo-fuscis.

Female. Cinereous, dark brown beneath. Head and fore part of the thorax pale ochraceous; front and palpi dark brown. Wings beneath with one exterior brown line. Fore wings with purple and æneous reflexions, and with three brown indistinct slightly undulating lines; 2nd line accompanied by a darker brown dot; marginal points black. Hind wings cupreous brown; under side with a brown discal dot. Length of the body 6 lines; of the wings 14 lines.

Gen. *THACONA*, n. g.

Mas. *Corpus* vix robustum. *Proboscis* conspicua. *Palpi* breves, validi, oblique ascendentes; articulus 2^{us} arcuatus, latus; 3^{us} brevissimus. *Antennæ* longæ, subserratae, pubescentes. *Abdomen* cylindricum, longissimum. *Pedes* longiusculi, sat graciles; tibiæ anticæ breves; tibiæ posticæ calcaribus duobus apicalibus, uno longissimo; tarsi postici longissimi. *Alæ* anticæ longæ, angustæ, apice rotundatæ; posticæ amplæ.

Male. Body hardly stout. Proboscis distinct. Palpi short, stout, obliquely ascending, applied to the head; 2nd joint curved, broad; 3rd extremely short and minute. Antennæ long, minutely serrated, very pubescent. Abdomen cylindrical, very long, extending far beyond the hind wings; apical tuft divergent. Legs rather long and slender; fore tibiæ short; hind tibiæ with two apical spurs, one of which is very short; tarsi long; hind tarsi very long. Wings long. Fore wings narrow, rounded at the tips; costa straight; exterior border convex, moderately oblique. Hind wings ample.

This is a very aberrant genus, and does not accord well with the characters of any of the families of the *Noctuites*.

375. *THACONA COSTIVITTA*, n. s. *Mas.* Albida, capite thoraceque antico ferrugineis, abdomine alisque posticis fusco-cinereis æneo tinctis, alis anticis vitta costali ferruginea nigro notata postice dilatata et maculam albidam includente.

Male. Head and fore part of the thorax ferruginous. Thorax whitish hindward. Abdomen and hind wings brownish cinereous, with an æneous tinge. Underside of the body and of the wings cinereous

brown. Fore wings whitish, with a ferruginous costal stripe, which contains some black marks, and is notched along its hind side; the latter dilated in the middle, and containing an oblong whitish spot. Length of the body 9 lines; of the wings 20 lines.

Gen. BADAUSA, n. g.

Fam. *Corpus* robustum. *Proboscis* conspicua. *Palpi* graciles, oblique ascendentes, valde compressi; articulus 3^{us} lanceolatus, 2ⁱ dimidio brevior. *Antennæ* subpubescentes. *Abdomen* alas posticas non superans. *Pedes* sat robusti; tibiæ posticæ pilosæ, calcaribus quatuor longissimis. *Alæ* anticæ latæ, apice rectangulatæ.

Female. Body stout. Frontal tuft prominent. *Proboscis* distinct. *Palpi* slender, obliquely ascending, extremely compressed; 3rd joint lanceolate, less than half the length of the 2nd. *Antennæ* very minutely pubescent. *Abdomen* not extending beyond the hind wings. *Legs* somewhat stout; hind tibiæ pilose, with four very long spurs. *Wings* broad. Fore wings rectangular at the tips; costa straight; exterior border oblique hindward.

This genus hardly forms part of the family with which it is here placed, and perhaps it is not one of the *Noctuities*; it has some affinity to the *Hypenidæ*.

376. BADAUSA HYPENOIDES, n. s. *Fam.* Obscure ferrugineo-fusca, abdomine alisque posticis æneo-fuscis, alis anticis spatio marginali cinereo lineam albidam angulosam includente, lineis duabus nigris, 1^a undulata, 2^a postice abbreviata, puncto discali nigro.

Female. Dark ferruginous brown, cinereous brown beneath. *Abdomen* and hind wings æneous brown. Fore wings with a large cinereous space along the border on each side of the interior angle, and including a whitish zigzag submarginal line; interior and exterior lines black, the former undulating, the latter shortened hindward by the cinereous part; a black discal point between the lines; submarginal line obsolete in front, except near the costa, where it is white and distinct. Length of the body 6 lines; of the wings 16 lines.

Gen. ASTA, n. g.

Mas. *Corpus* crassum. *Proboscis* robusta. *Palpi* verticem superantes; articulus 2^{us} subarcuatus, subdilatatus; 3^{us} linearis, gracilis, 2ⁱ dimidio non longior. *Antennæ* validæ, glabræ. *Abdomen* alas posticas superans; fasciculus apicalis parvus, compressus. *Pedes* robusti, pilosi; tibiæ posticæ calcaribus quatuor longissimis. *Alæ* amplæ; anticæ apice rotundatæ.

Male. Body very robust. *Proboscis* stout, of moderate length. *Palpi* ascending higher than the vertex; 2nd joint slightly curved and dilated; 3rd linear, slender, about half the length of the 2nd. *Antennæ* stout, smooth. *Abdomen* extending somewhat beyond the hind wings;

apical tuft small, compressed. Legs stout, pilose; hind tibiæ with four very long spurs. Wings ample. Fore wings somewhat rounded at the tips; costa straight; exterior border very convex, moderately oblique.

377. *ASTA QUADRILINEA*, n. s. *Mas.* Obscure rufo-fusca, palpis testaceis, alis anticis purpurascente tinctis, lineis quatuor nigro-fuscis rectis obliquis parallelis, guttis duabus discalibus nigro-fuscis, linea submarginali angulosa, alis posticis obscure fuscis.

Male. Dark reddish brown; underside paler and with a cinereous tinge. Palpi testaceous. Fore wings with a purplish bloom, and with four straight, oblique, parallel, nearly equidistant blackish-brown lines; two blackish-brown discal dots, one between the 1st and 2nd lines, the other between the 2nd and 3rd lines; submarginal line slight, zigzag. Hind wings dark brown, with two lines and an intermediate dot on the under side. Length of the body 8 lines; of the wings 20 lines.

Fam. *CATEPHIIDÆ*, *Guén.*

Gen. *ANOPHIA*, *Guén.*

378. *ANOPHIA LIMITARIS*, n. s. *Mas.* Fusca, cinereo varia, alis anticis lineis tribus angulosis nigris, reniformi maculaque exteriore fuscis, alis posticis cupreo-fuscis basi albis.

Male. Brown, varied with cinereous. Palpi ascending; 3rd joint lanceolate, more than half the length of the 2nd. Antennæ simple. Legs very stout; femora and tibiæ fringed. Fore wings with three black zigzag lines; third line bent in front, connected by a short inward line with an elongated brown spot; the latter connected in front by another little line with the irregular brown reniform mark; marginal lunules blackish, slender; costa with whitish marks. Hind wings cupreous brown, white towards the base, and with a white mark along the fore part of the exterior border; interior border with a white fringe. Length of the body 8 lines; of the wings 18 lines.

379. *ANOPHIA ANGULIFERA*, n. s. *Fæm.* Cinereo-fusca, antennis subserratis, abdomine flavescente vitta fusca, alis anticis basi fasciaque lata albidis, lineis duabus basalibus angulatis nigris, spatio marginali nebulis fuscis strigaeque obliqua nigra, alis posticis basi et apud angulum interiorem flavescens.

Female. Cinereous brown. Palpi slightly ascending; 3rd joint linear, about one-third of the length of the 2nd. Antennæ very minutely serrated. Abdomen yellowish, with a broad brown stripe. Fore wings whitish at the base, and with a broad whitish band, the latter emitting a bidentate streak into the exterior part of the disk; two angular black lines near the base; marginal space obliquely shaded with brown, and containing an oblique black streak; marginal lunules black. Hind wings yellowish towards the base and on the interior

angle; fringe yellowish, with brown marks. Length of the body 5 lines; of the wings 14 lines.

380. *ANOPHIA SUFFUNDENS*, n. s. Obscure ferrugineo-fusca, abdomine cinereo, tibiis posticis fimbriatis, alis anticis lineis duabus nigris duplicatis, 1^a denticulata, 2^a undulata, linea exteriori nigra obliqua brevi, reniformi olivaceo-pallida, alis posticis fuscis basi albis.

Dark ferruginous brown. Palpi rising higher than the vertex; 3rd joint linear, much more than half the length of the 2nd. Abdomen and underside cinereous. Hind tibiæ fringed. Fore wings here and there blackish-tinged; interior and exterior lines black, double, the former slightly denticulated, the latter undulating; a more exterior oblique black line extending from the costa to the middle of the exterior border; reniform mark pale, with an olive tinge; marginal lunules black; costa with some whitish subapical points. Hind wings brown, white towards the base. Length of the body 5 lines; of the wings 14 lines.

Gen. *IDICARA*, n. g.

Mas. *Corpus* crassum. *Palpi* verticem vix superantes; articulus 3^{us} linearis, 2ⁱ dimidio non longior. *Antennæ* subpubescentes. *Abdomen* longissimum, lateribus apiceque dense pilosis. *Pedes* robusti; tibiæ densissime fasciculatæ. *Alæ* anticæ apice subrotundatæ; posticæ fasciculo densissimo recurvo apud marginem interiorem.

Male. Body very stout. Palpi hardly rising higher than the vertex; 3rd joint linear, rounded at the tip, about half the length of the 2nd. *Antennæ* minutely pubescent. Abdomen very long, extending far beyond the hind wings, thickly clothed on each side and at the tip. Legs stout; tibiæ most densely tufted. Wings moderately broad. Fore wings slightly rounded at the tips; costa straight; exterior border convex, its hind part rather oblique. Hind wings with a very dense recurved tuft on the interior border.

Allied to *Anophia*.

381. *IDICARA OLIVACEA*, n. s. *Mas.* Viridescenti-cinerea, thorace lineis duabus transversis nigris, abdomine pallide cervino, fasciculo apicali nigricante, alis anticis nigro subconspersis, lineis tribus angulosis nigris, litura submarginali brevi lata nigricante, alis posticis æneo-fuscis basi albis.

Male. Greenish cinereous, paler and tinged with fawn-colour beneath. Thorax with two black transverse lines. Abdomen pale fawn-colour; apical tuft blackish. Fore wings thinly black-speckled, with the basal, interior, and exterior lines black, zigzag, the third bent outward; reniform mark incompletely bordered with black; a short broad blackish mark near the exterior border towards the tip; marginal points black. Hind wings æneous brown, white towards the base; tuft on the interior border dark brown. Length of the body 10 lines; of the wings 20 lines.

Gen. REMUSIA, *Walk.*

382. *Remusia intrahens*, *Walk. Cat. Lep.* 3rd ser. 1780.—*Anophia smaragdina*, *Walk. Cat. Lep.* 3rd ser. 1811.

383. *REMUSIA HIRTISSIMA*, n. s. *Mas.* Cervina, pilosissima, abdominis lateribus densissime floccosis, fasciculo apicali longo, alis anticis cinereo variis, nigro subconspersis, lituris basalibus punctisque marginalibus nigris, lunula discali alba, plaga maxima fusca nigro marginata, margine interiore pilis longissimis fimbriato, alis posticis margine exteriori cinereo.

Male. Fawn-colour, very pilose. Palpi ascending a little higher than the vertex; 3rd joint about half the length of the 2nd. Antennæ very distinctly setulose and pubescent. Abdomen very densely floccose along each side; apical tuft long. Fore wings partly cinereous, thinly and irregularly black-speckled; a very large brown black-bordered patch, which is dilated hindward towards the base, and extends to the interior border, but not to the costa; some black marks of various size towards the base; a white discal lunule; marginal points black; interior border fringed with very long hairs. Hind wings cinereous along the exterior border. Length of the body 7 lines; of the wings 16 lines.

Gen. STEIRIA, *Walk.*

384. *Steiria signifera*, *Walk. Cat. Lep.* 3rd ser. 1136.

385. *Steiria trajiciens*, *Walk. Cat. Lep.* 3rd ser. 1137.

Inhabits also Ceylon.

386. *STEIRIA FERRIFERA*, n. s. *Fæm.* Ferruginea, thorace linea transversa interrupta nigra, alis anticis lineis fuscis undulatis indistinctis, linea media nigra vix undulata, reniformi nigro notata et marginata, spatio marginali pallido lineis diffusis nigricantibus, alis posticis cinereo-hyalinis fusco latissime marginatis.

Female. Ferruginous. Third joint of the palpi less than half the length of the 2nd. Thorax with an interrupted transverse black line. Abdomen and underside cinereous. Fore wings with some indistinct transverse undulating brown lines; middle line black, hardly undulating, very near the reniform mark, which is bordered and pupilled with black; exterior part mostly cinereous or whitish, with diffuse transverse blackish lines; marginal points black. Hind wings cinereous hyaline, iridescent, with very broad dark brown borders; fringe cinereous. Length of the body 9 lines; of the wings 20 lines.

387. *STEIRIA REPLETA*, n. s. *Fæm.* Ferruginea, thorace fascia antica nigra, alis anticis lituris plurimis nigris transversis interruptis angulatis, macula basali nigra, reniformi viridescente nigro marginata, alis posticis cinereo-hyalinis fusco late marginatis.

Female. Ferruginous. Thorax with a black band in front. Abdomen

and underside cinereous. Fore wings with numerous transverse more or less interrupted and angular black marks; a black discal spot near the base; reniform mark greenish, elongated, oblique, black-bordered. Hind wings cinereous hyaline, with a broad brown border. Length of the body 7 lines; of the wings 16 lines.

388. *STEIRIA HUMERALIS*, n. s. *Fæm.* Cinerea, capite thoraceque antico cervinis, alis anticis ferrugineis, spatio exteriori cinereo fasciam nigricantem interruptam includente, reniformi nigro marginata, vitta costali basali albida, alis posticis cinereo-hyalinis fusco late marginatis.

Female. Cinereous. Head and fore part of the thorax fawn-colour. Third joint of the palpi almost as long as the 2nd. Fore wings ferruginous, except for about one-third of the surface from the exterior border; the cinereous part is traversed by an irregular and interrupted blackish band, and is much narrower towards the costa, where it contains an interrupted black longitudinal line; reniform mark black-bordered, partly included in the cinereous part; a whitish stripe along the basal part of the costa; marginal lunules black. Hind wings cinereous hyaline, with a broad brown border. Length of the body 7 lines; of the wings 16 lines.

389. *STEIRIA ALBISTRIGA*, n. s. *Mas.* Ferrugineo-fusca, abdomine longo basi albido, alis anticis nigricante strigatis, linea exteriori nigra undulata, reniformi ex parte nigra strigaeque discali alba contiguus, alis posticis albis subhyalinis fusco latissime marginatis.

Male. Ferruginous brown. Third joint of the palpi hardly half the length of the 2nd. Abdomen æneous brown, whitish towards the base, extending much beyond the hind wings. Fore wings with blackish streaks, and with a black undulating transverse exterior line; a white streak in the disk by the reniform mark, which is partly black; marginal lunules black. Hind wings white, slightly hyaline, with a very broad æneous-brown border. Length of the body $5\frac{1}{2}$ lines; of the wings 12 lines.

390. *STEIRIA ÆQUILINEA*, n. s. *Fæm.* Fusca, abdomine alas posticas perpaullo superante, alis anticis lineis nonnullis denticulatis obscure fuscis subobliquis pallido marginatis, orbiculari et reniformi indistinctis, alis posticis obscure fuscis.

Female. Brown. Palpi obliquely ascending; 3rd joint hardly half the length of the 2nd. Abdomen extending very little beyond the hind wings. Legs stout; spurs long. Fore wings with several denticulated, parallel, slightly oblique dark brown, mostly buff-bordered lines; marginal line dark brown, buff-bordered on the inner side, and with buff points; orbicular and reniform marks indistinct. Hind wings dark brown. Length of the body 5 lines; of the wings 14 lines.

Gen. SPERSARA, n. g.

Mas. Corpus robustum. Proboscis conspicua. Palpi ascendentes,

verticem non superantes; articulus 2^{us} securiformis, latissimus; 3^{us} securiformis, minimus. *Antennæ* longissimæ, dimidio basali subser-rato subpubescente. *Abdomen* longissimum. *Pedes* breves, femoribus tibiisque fimbriatis, calcaribus quatuor longis. *Alæ* perangustæ, apice rotundatæ.

Male. Body robust. Frontal tuft prominent. Proboscis distinct. Palpi ascending, not rising so high as the vertex; 2nd joint securiform, very broad; 3rd securiform, very minute. *Antennæ* very long, very minutely serrated and pubescent for half the length from the base. *Abdomen* tapering, very long, extending for more than half its length beyond the hind wings. Legs short; femora and tibiæ fringed with long hairs; hind tibiæ with four long spurs. Wings very narrow. Fore wings rounded at the tips; costa straight; exterior border slightly convex, extremely oblique.

Allied to *Ægilia*.

391. SPERSARA GLAUPOIDES, n. s. *Mas.* Fusca, abdomine subtus trilineato, alis linea submarginali albida testacea denticulata informi interrupta, alis anticis purpureo tinctis, lineis transversis subobsoletis, orbiculari et reniformi nigris.

Male. Brown, mostly cinereous beneath. *Abdomen* beneath with three paler lines. Wings with an irregular and interrupted denticulated whitish testaceous submarginal line, which is most complete in the hind wings; marginal points black. Fore wings tinged with purple; transverse lines almost obsolete; orbicular and reniform marks black, the former punctiform, the latter forming an oblong ringlet. Length of the body 10 lines; of the wings 20 lines.

Gen. MINICA, *Walk.*

392. MINICA SEMIALBA, n. s. *Fæm.* Albida, capite thoraceque antico ferrugineo-fuscis, alis anticis lineis olivaceis undulatis indistinctis interruptis, vittula apud angulum interiorem plaga basali plagaque subapicali ferrugineis nigro strigatis, plaga discali maxima purpureo-fusca, alis posticis subhyalinis fusco latissime marginatis. *Mas* alis anticis plaga discali subobsoleta.

Female. Whitish. Head and fore part of the thorax ferruginous brown. Third joint of the palpi much shorter than the 2nd. Fore wings with transverse undulating, indistinct and incomplete olive-green lines; a short stripe by the interior angle, a patch near the tip of the costa, and another patch at the base of the costa ferruginous, black-streaked; a very large purplish-brown discal patch including the discal mark, and bounded by two black lines, the outer line much broader than the inner line and somewhat macular; marginal lunules black. Hind wings iridescent, almost hyaline, very broadly bordered with brown; marginal lunules blackish; fringe whitish. *Male.* Fore wings wholly tinged with olive-green; basal patch very small; discal patch almost

obsolete; the line along its outer side more distinctly macular. Length of the body 8 lines; of the wings 20 lines.

393. *MINICA NIGRILINEA*, n. s. *Fam.* Cinerea, capite thoraceque antico cervinis, alis anticis dimidio basali cervino lineam nigram includente, dimidio exteriori lineis nonnullis denticulatis fuscis fasciaque interrupta cervina, alis posticis subhyalinis fusco latissime marginatis. *Female.* Cinereous. Head, fore part of the thorax, and fore wings for nearly half the surface from the base, bright fawn-colour. Third joint of the palpi nearly as long as the 2nd. Fore wings with a black line on the fawn-coloured part, which is bounded by a brown line; exterior part with slight transverse denticulated brown lines, and with a much interrupted fawn-coloured band; marginal points black. Hind wings iridescent, almost hyaline, very broadly bordered with brown; fringe whitish. Length of the body 7 lines; of the wings 16 lines.

Gen. *MACEDA*, *Walk.*

394. *Maceda mansueta*, *Walk. Cat. Lep.* 3rd ser. 1141. *Var.* *Calduba obtenta*, *Walk. Cat. Lep.* 3rd ser. 1815.

Inhabits also Ceylon.

395. *MACEDA DISCALIS*, n. s. *Mas.* Cervina, subtus alba, abdomine subcristato, alis anticis lineis tribus fuscis angulosis, 3^a guttulari, litura basali nigricante, plaga costali cervina nigricante marginata punctum nigrum includente, alis posticis fuscis macula magna discali albida semihyalina.

Male. Fawn-colour, white beneath. Third joint of the palpi conical, hardly one-fourth of the length of the 2nd. Antennæ minutely pubescent. Abdomen brownish cinereous, slightly crested. Legs white beneath; tarsi with white bands. Fore wings with three more or less zigzag brown lines; 3rd line bent, somewhat guttular; blackish mark on the base of the interior border; a large dark fawn-coloured patch adjoining the costa, containing a black point, diffusely blackish-bordered, dentate along the hind part of its outer side. Hind wings brown, with a large whitish semihyaline discal spot, and with an elongated white mark on the hind part of the exterior border. Length of the body 7 lines; of the wings 16 lines.

Fam. *OPHIDERIDÆ*, *Guén.*

Gen. *OPHIDERES*, *Boisd.*

396. *Ophideres fullonica*, *Linn. Syst.* i. 2. 812. 16 (*Phalæna Noctua*). Inhabits also West Africa, Hindostan, Ceylon, Australia, Navigators' Islands, and New Hebrides?

Gen. *PHYLLODES*, *Boisd.*

397. *PHYLLODES SEMILINEA*, n. s. *Fam.* Cervina, alis anticis lineis subobscurioribus flexis diffusis indistinctis, linea longitudinali exteriori

fusca, orbiculari nigra punctiformi, reniformi maxima fusco et purpureo marginata, plagis duabus subtus obscure fuscis, alis posticis nigricantibus luteo fasciatis cervino marginatis.

Female. Fawn-colour. Third joint of the palpi capitate. Knees silvery. Abdomen extending a little beyond the hind wings. Fore wings with some indistinct, diffuse, more or less bent, slightly darker lines, and with a straight longitudinal brown line, which extends from near the hind end of the reniform mark to the tips; orbicular mark forming a black point; reniform mark very large, elongate, concave on the outer side, bordered with brown and with purple; underside with two dark brown patches. Hind wings blackish, broadly bordered with fawn-colour, and containing a dentate luteous band, which on the under side is limited to a luteous black-bordered patch. Length of the body 16 lines; of the wings 46 lines.

Gen. POTAMOPHORA, *Guén.*

398. *Potamophora Manlia*, *Cram. Pap. Exot.* i. 144, pl. 92. f. A (*Phalæna Noctua*).

Inhabits also Hindostan, Ceylon, China, Java, and the Philippine Islands. The wing-markings of this species are very variable.

399. POTAMOPHORA FERRIFRACTA, n. s. *Fæm.* Fusca, alis lineis tribus nigris angulatis deviis pallido marginatis, spatio medio pallido atomis nigris, macula magna pallida, fascia subtus lata informi margaritacea, alis anticis striga lata rufo-ferruginea nigro marginata, alis posticis litura apud angulum interiorem ferruginea nigro interlineata.

Female. Brown, with many hoary hairs. Wings with three very irregular and angular black lines, which are bordered with cinereous buff; space between the 2nd and 3rd lines of the same pale hue, thickly speckled with black, except in front; a large pale spot resting on a streak, which connects the 2nd line with the 1st; under side with a broad very irregular pearly white band. Fore wings with a broad, reddish-ferruginous, partly black-bordered zigzag streak, which extends from the tips to the 3rd transverse line. Hind wings with a ferruginous black-interlined mark by the interior angle. Length of the body 14 lines; of the wings 36 lines.

Fam. OMMATOPHORIDÆ, *Guén.*

Gen. OMMATOPHORA, *Guén.*

400. *Ommatophora luminosa*, *Cram. Pap. Exot.* iii. 147, pl. 274. f. D (*Phalæna*.)

Inhabits also Java and the Philippine Islands.

Gen. NYCTIPAO, *Hübner.*

401. *Nyctipao crepuscularis*, *Linn. Syst. Nat.* i. 2. 2811. 13 (*Phalæna Attacus*).

Inhabits also Hindostan and Java.

Gen. HYPOPYRA, *Guén.*

402. *Hypopyra vespertilio*, *Fabr. Ent.* iii. 2. 15. 23. (Noctua).
Inhabits also Hindostan, Ceylon, and China.

403. *HYPOPYRA APICALIS*, n. s. *Fœm.* Pallide cinereo-cervina, alis nigro subconspersis, lineis tribus indistinctis undulatis cervinis, linea guttulari fusca, linea submarginali cinerea angulosa, alis anticis apice fusciscentibus.

Female. Pale cinereous fawn-colour. Third joint of the palpi rather shorter than the 2nd. Wings broad, thinly and minutely black-speckled, with three indistinct undulating fawn-coloured lines, and with one line formed of brown dots; submarginal line cinereous zigzag; submarginal points black; under side with one straight line of brown dots. Fore wings brownish at the tips. Length of the body 9 lines; of the wings 24 lines.

Fam. BENDIDÆ, *Guén.*Gen. HULODES, *Guén.*

404. *Hulodes saturnioides*, *Guén. Noct.* iii. 209. 1610.
Inhabits also Hindostan.

Gen. CULICULA, n. g.

Mas. *Corpus* robustum. *Proboscis* conspicua. *Palpi* compressi, recurvi, verticem superantes; articulus 3^{us} lanceolatus, subfimbriatus, 2ⁱ dimidio non longior. *Antennæ* setulosæ, pubescentes. *Thorax* crassus. *Abdomen* attenuatum, alas posticas superans; fasciculus apicalis compressus. *Pedes* validi, subpilosi. *Alæ* anticæ latæ, apice rotundatæ, costa recta basi subdilatata, margine exteriori recto perobliquo.

Male. Body stout. *Proboscis* moderately long. *Palpi* much compressed, recurved over the back of the head; 3rd joint lanceolate, slightly fringed, about half the length of the 2nd. *Antennæ* setulose, pubescent. *Thorax* very robust. *Abdomen* attenuated, extending somewhat beyond the hind wings; apical tuft compressed. *Legs* stout, slightly pilose; hind tibiæ with four long spurs. *Wings* broad. *Fore wings* rounded at the tips; costa straight, slightly dilated at the base; exterior border straight, very oblique.

This genus is allied by its structure to some of the *Herminidæ*.

405. *CULICULA BIMARGINATA*, n. s. *Mas.* Pallide cervina, alis spatio marginali pallidiore, fascia submarginali recta obscure fusca extus concisa intus diffusa, lineis interiore et exteriori undulatis valde indistinctis, lunula subtus discali fusca, alis anticis puncto discali fusco.

Male. Pale fawn-colour, with a cinereous tinge on the underside. *Wings* with a straight dark-brown submarginal band, which is diffuse on the interior side and concise on the outer side, where the marginal space is paler than the wings elsewhere; interior and exterior lines undulating, very indistinct, a little darker than the ground-hue; un-

derside with a brown discal lunule. Fore wings with a brown discal point. Length of the body 10 lines; of the wings 20 lines.

Fam. OPHIUSIDÆ, *Guén.*

Gen. LAGOPTERA, *Guén.*

406. LAGOPTERA PALLESCENS, n. s. *Mas.* Pallide testaceo-cinerea, capite palpisque obscure fuscis, alis anticis nigro conspersis, lineis interiore et exteriori fusciscentibus, 1^a undulata, 2^a denticulata antice flexa, linea media minus determinata et reniformi nigro conspersa cervinis, spatio marginali obscuriore lineam submarginalem cineream undulatam includente, alis posticis pallide flavescens marginis latissimo nigro.

Male. Pale testaceous cinereous. Head and palpi dark brown. Abdomen and underside pale yellowish. Fore wings black-speckled, with the interior and exterior lines brownish, the 1st undulating, the 2nd denticulated, bent in front; middle line fawn-colour, less distinct; space beyond the exterior line darker than the ground-hue, including the undulating cinereous submarginal line; reniform mark fawn-colour, thickly speckled with black. Hind wings pale yellowish, with a very broad black border, which becomes narrower towards the interior angle. Length of the body 16 lines; of the wings 40 lines.

Gen. CERBIA, *Walk.*

407. CERBIA SUBOLIVACEA, n. s. *Mas.* Pallide olivaceo-cervina, subtus lutescenti-cervina, abdomine cristato, alis anticis latis nigro conspersis, lineis nonnullis denticulatis nigris ex parte nigro nebulosis, alis posticis linea exteriori fasciaque submarginali nigricantibus.

Male. Pale fawn-colour, tinged with olive-green, lutescent fawn-colour beneath. Third joint of the palpi a little shorter than the 2nd, and less than half its breadth. Antennæ stout, thickly setulose and pubescent. Thorax very robust. Abdomen crested, not extending beyond the hind wings. Legs stout; spurs long. Wings broad, with black marginal points. Fore wings with black speckles, and with several denticulated black lines, some of which are partly and slightly shaded with black; underside, and both surfaces of the hind wings, with a blackish exterior line and a blackish submarginal band, which is broadest in the hind wings. Length of the body 9 lines; of the wings 20 lines.

Gen. OPHISMA, *Guén.*

408. Ophisma inversa, *Walk. Cat. Lep.* 3rd ser. 1384.

409. OPHISMA RUBIDA, n. s. *Mas.* Saturate rufa, subtus cervina, alis anticis costa pallidiore subcinerea, lineis duabus postice obsoletis, fascia marginali glauco-cana extus diffusa intus concisa, punctis duobus

discalibus, 1^o nigricante, 2^o majore albido, alis posticis fuscis fascia media alba.

Male. Deep dark red, fawn-colour beneath. Third joint of the palpi extremely small. Antennæ minutely setulose and pubescent. Abdomen brown, not extending beyond the hind wings. Fore wings paler, and with a cinerous tinge along the costa; two transverse lines, apparent only in the fore part of the wing; a marginal glaucous hoary band, concise on the inner side, diffuse on the outer side, where it is intersected by lunules; two discal points, one blackish, the other larger, whitish, bordered with dark red. Hind wings brown, with a white middle band; exterior border slightly marked with white; fringe cinereous. Length of the body 14 lines; of the wings 32 lines.

410. *OPHISMA VELATA*, n. s. *Fæm.* Cinereo-fusca, subtus ochracea, alis anticis ferrugineis, lineis quatuor nigricantibus, 1^a básali, 2^a recta extus diffusa, 3^a undulata, 4^a serpentina, linea exteriori e punctis elongatis nigris albido notatis, alis posticis subochraceis fusco bifasciatis.

Female. Cinereous brown, ochraceous beneath. Third joint of the palpi lanceolate, about one-third of the length of the 2nd. Wings broad; marginal line blackish, undulating. Fore wings ferruginous, with four blackish lines; 1st line very near the base; 2nd straight, diffuse on the outer side; 3rd undulating; 4th most deeply meandering, with a whitish mark in front, and having beyond it a line of elongated black whitish-marked points. Hind wings dull ochraceous, with two diffuse brown bands, the latter very broad. Length of the body 8 lines; of the wings 20 lines.

411. *OPHISMA LUTEA*, n. s. *Mas.* Lutea, capite antico fusco, alis nigro subconspersis linea obliqua recta ferruginea intus nigricante et diffusa, alis anticis litura subcostali nigra lineisque tribus ochraceis transversis costalibus.

Male. Luteous. Head in front and palpi brown. Antennæ minutely setulose and pubescent. Abdomen paler than the thorax, extending a little beyond the hind wings. Legs rather slender; tarsi long, spinose. Wings thinly black-speckled, paler towards the inner side of a straight ferruginous line, which extends from the tips of the fore wings to the interior angle of the hind wings; this line is blackish and diffuse on the inner side. Fore wings with a black subcostal mark which consists of a point and of an irregular lunule, and three incipient ochraceous lines which only appear by the costa. Length of the body 12 lines; of the wings 28 lines.



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