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DESCRIPTIONS OF
HETEROCEROUS LEPIDOPTERA,
FROM CONGO.

By
FRANCIS WALKER, FLS.

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199711

CHARACTERS OF SEVENTY-SIX UNDESCRIBED SPECIES
 OF
 HETEROCEROUS LEPIDOPTERA,
 FROM CONGO, WEST AFRICA.

WITH THREE PLATES.

BY
 FRANCIS WALKER, F.L.S.

The Specimens were Exhibited at a Meeting of the Natural History Society of Glasgow, April 27th, 1869, and are in the possession of THOMAS CHAPMAN, Glasgow.

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|----------------------------------|----------------------------------|
| TRIBE. <i>SPIRINGITES.</i> | Genus. <i>Aletis, Hubn.</i> |
| Family. <i>SMERINTHID.E.</i> | <i>A. postica.</i> |
| Genus. <i>Smerinthus, Latr.</i> | Genus. <i>Phægorista, Boisd.</i> |
| <i>S. subjectus.</i> | <i>P. similis.</i> |
| Genus. <i>Ambulyx, Boisd.</i> | Family. <i>HYPSID.E.</i> |
| <i>A. constrictilis.</i> | Genus. <i>Surina, n.</i> |
| Genus. <i>Basiana, Walk.</i> | <i>S. hypsoides.</i> |
| <i>B. suffusa.</i> | Genus. <i>Hypsa, Hubn.</i> |
| | <i>H. dissociata.</i> |
| TRIBE. <i>BOMBYCITES.</i> | Genus. <i>Zaracha, n.</i> |
| Family. <i>AGARISTID.E.</i> | <i>Z. extranea.</i> |
| Genus. <i>Eusemia, Daln.</i> | Family. <i>LITHOSID.E.</i> |
| <i>E. pardalina.</i> | Genus. <i>Soloe, Walk.</i> |
| Family. <i>NYCTEMERID.E.</i> | <i>S. quadriguttata.</i> |
| Genus. <i>Nyctemera, Hubn.</i> | Genus. <i>Barsine, Walk.</i> |
| <i>N. simplex.</i> | <i>B. indecisa.</i> |
| <i>N. decisa.</i> | Family. <i>ARCTID.E.</i> |
| Family. <i>ZYGÆNID.E.</i> | Genus. <i>Spilosoma, Steph.</i> |
| Genus. <i>Balaera, Walk.</i> | <i>S. ramivitta.</i> |
| <i>B. ochracea.</i> | Genus. <i>Sciatta, n.</i> |
| Family. <i>MELAMERID.E.</i> | <i>S. inconcisa.</i> |
| Genus. <i>Leucopsumis, Hubn.</i> | Family. <i>LIPARID.E.</i> |
| <i>L. cryptochroma.</i> | Genus. <i>Artaxa, Walk.</i> |
| Family. <i>PERICOPID.E.</i> | <i>A. squamiplaga.</i> |

- Genus. Zarfa, n.
 Z. lunifera.
 Genus. Sizalisca, n.
 S. graminosa.
 Genus. Viana, n.
 V. velutina.
 Family. SICULODIDÆ.
 Genus. Vaena, n.
 V. eaeleoides.
 Family. BOMBYCIDÆ.
 Genus. Pœcilocampa, *Steph*
 P. sublineata.
 Family. LIMACODIDÆ.
 Genus. Nyssia, *Herr-Sch.*
 N. rudis.
 Genus. Zimara, n.
 Z. nervosa.
 Family. SATURNIIDÆ.
 Genus. Antherea, *Hüb.*
 A. rhodophila.
 A. intermiscens.
- TRIBE. NOCTUITES.
 Family. BRYOPHILIDÆ.
 Genus. Tachosa, n.
 T. acronyctoides.
 T. metaphæaria.
 Family. GLOTTULIDÆ.
 Genus. Tuerta, n.
 T. chrysochlora.
 Genus. Petrinia, n.
 P. lignosa.
 Family. NOCTUIDÆ.
 Genus. Agrotis, *Ochs.*
 A. hemileuca.
 A. catenifera.
 Family. ACONTIDÆ.
 Genus. Tavila, n.
 T. indeterminata.
- Family. ERASTRIDÆ.
 Genus. Erastria, *Ochs.*
 E. decora.
 Family. ANTHOPHILIDÆ.
 Genus. Hydrelia, *Guén.*
 H. terminata.
 Genus. Micra, *Guén.*
 M. convergens.
 M. intricata.
 Family. EURHIPIDÆ.
 Genus. Entelia, *Hüb.*
 E. quadriliturata.
 Family. HEMICERIDÆ.
 Genus. Nedroma, n.
 N. ferruginea.
 Family. HYPOGRAMMIDÆ.
 Genus. Stridova, n.
 S. albigntta.
 Genus. Briarda, *Walk.*
 B. conturbata.
 Family. EREBIDÆ.
 Genus. Tolna, n.
 T. versicolor.
 Family. OPHIDERIDÆ.
 Genus. Ophideres, *Boisd.*
 O. divitiosa.
 Family. OPHIUSIDÆ.
 Genus. Achæa, *Hüb.*
 A. ophismoides.
 A. partita.
 Genus. Hypætra, *Guén.*
 H. atriplaga.
 H. biangulata.
 H. (?) nana.
 Genus. Athyrma, *Hüb.*
 A. albicincta.
 Genus. Ophiusa, *Ochs.*
 O. subænescens.
 Genus. Grammodes, *Guén.*
 G. curvilinea.

- Genus. *Obba*, n.
O. prompta.
 Family. POAPHILIDÆ.
 Genus. *Zirona*, n.
Z. marginata.
 Family. AMPHIGONIDÆ.
 Genus. *Amphigonia*, *Guén.*
A. fumosa.
 Family. THERMESIDÆ.
 Genus. *Thermesia*, *Hüb.*
T. (?) sejuncta.
 Genus. *Capnodes*, *Guén.*
C. trinotata.
 Genus. *Ricla*, n.
R. expandens.
 Genus. *Raelia*, n.
R. cervina.
- TRIBE. DELTOIDITES.
 Family. HERMINIDÆ.
 Genus. *Orixa*, n.
O. filifera.
- TRIBE. PYRALITES.
 Family. PYRALIDÆ.
 Genus. *Pyralis*, *Linn.*
P. (?) crassalis.
 Family. ASOPIDÆ.
 Genus. *Samea*, *Guén.*
S. figuralis.
 Family. BOTYDÆ.
 Genus. *Vatica*, n.
V. rutilalis.
 Genus. *Botys*, *Latr.*
B. interfixalis.
- Genus. *Xacca*, n.
X. trigonalis.
 Genus. *Opula*, n.
O. impletalis.
- TRIBE. GEOMETRIDES.
 Family. GEOMETRIDÆ.
 Genus. *Geometra*, *Treit.*
G. congrua.
 Family. PALLYADÆ.
 Genus. *Traina*, n.
T. stramineata.
 Genus. *Timana*, n.
T. costalis.
 Family. BOARMIDÆ.
 Genus. *Boarmia*, *Treit.*
B. abruptaria.
 Genus. *Tephrosia*, *Boisd.*
T. diffusa.
 Family. ACIDALIDÆ.
 Genus. *Acidalia*, *Treit.*
A. latifera.
 Genus. *Nebessa*, n.
N. chalybeata.
 Family. FIDONIDÆ.
 Genus. *Scodiona*, *Boisd.*
S. cephalotes.
 Family. MICRONIDÆ.
 Genus. *Micronia*, *Guén.*
M. tenella.
- TRIBE. PHYCITES.
 Family. PHYCIDÆ.
 Genus. *Subrita*, *Walk.*
S. luctuosa.

1. *SMERINTHUS SUBJECTUS*. *Mus.* Cinereorufus; palpis porrectis crassis obtusis pilosissimis caput paullo superantibus; antennis subpectinatis; abdomine alas posticas longe superante; alis anticis latuseculis acutis purpurascente subtinctis, fasciis tribus obliquis viriditestaceis, 1^a, antemedial angulosa marginata; 2^a, postmedia fusco intus marginata; 3^a, submarginali interrupta informi, reniformi viriditestaceo marginata longiuscula, linea obscura transversa subarcuata punctisque duobus nigris basim versus, puncto nigro antemedio subcostali, margine exteriori integro vix arcuato; alis posticis rufocinereis, lineis duabus ferrugineis undulatis.

Male. Cinereous red. Palpi porrect, thick, obtuse, very pilose, extending a little beyond the head. Antennae slightly pectinated; branches densely setose. Abdomen extending much beyond the hind wings. Legs stout; femora and tibiae pilose; hind tibiae with four long spurs. Wings rather broad. Fore wings acute, with a slight purplish bloom; three oblique testaceous bands; 1st band antemedial, zig-zag, bordered by two darker lines, a transverse slightly curved darker line nearer the base, two black points still nearer the base, and a black subcostal antemedial point; 2nd band postmedial, concisely bordered on the inner side by a straight brown line; 3rd band submarginal, interrupted, very irregular; reniform mark greenish testaceous with a darker border, rather long and narrow; exterior border moderately oblique, hardly curved; under side with one line corresponding to the straight line before mentioned. Hind wings reddish cinereous, with two undulating ferruginous lines; these lines are more conspicuous on the under side, where the second one is dentate; exterior border entire, rounded. Length of the body 11 lines; of the fore wings 26 lines.

2. *AMBULYX CONSTRIGILIS*. *Mus.* Ochraceoviridis; subtus pallide ochracea; antennis serratis; abdomine pallide ochraceo; alis fusco transverse conspersis; alis anticis acutis subfalcatis, lineis quatuor fasciis transversis indeterminatis postice approximatis, plagis duabus humilique exteriori costalibus albidis, margine exteriori subexcavato; alis posticis plaga basili nigricante, lineis tribus discoidalibus rufescentibus obliquis arcuatis.

Male. Ochraceous green, pale dull ochraceous beneath. Proboscis very short. Palpi stout, obliquely ascending, closely applied to the head, not rising higher than the vertex; 3rd joint very

short. Antennæ serrated. Abdomen pale ochraceous, lanceolate, extending for more than half its length beyond the hind wings; apical tuft very small. Wings long, narrow, transversely speckled with brown. Fore wings acute, subfalcate, with four transverse irregular brown lines, which converge towards the interior border, two whitish costal patches, and an exterior whitish costal lunule, the 2nd patch much smaller than the 1st; exterior border slightly excavated. Hind wings ochraceous, with a blackish patch at the base, and with three oblique curved reddish lines in the disk; middle line much shorter than the others; speckles about the lines reddish. Wings beneath with nearly similar markings. Length of the body 20 lines; of the wings 48 lines.

3. *BASIANA SUFFUSA*. *Fem.* Cervina; antennis serratis; pedibus nigro spinulosis; alis lineis duabus fuscis postmediis obliquis angulosis indeterminatis; alis anticis falcatis cinereo suffusis, annulo discoidali fusco indeterminato.

Female. Fawn colour. Proboscis very short. Palpi very broad and short, obliquely ascending, 3rd joint very minute. Antennæ serrated. Abdomen extending much beyond the hind wings. Legs beset with minute black spines; fore tibiæ slightly dilated, excavated beneath; hind tibiæ with four slender spines. Wings with two brown postmedial oblique indistinct zig-zag lines. Fore wings falcate, partly suffused with cinereous; an indistinct brown ringlet at the end of the areolet. Length of the body 12 lines; of the wings 33 lines.

Nearly allied to *B. submarginalis*.

4. *EUSEMIA PARDALINA*. *Mos.* Nigra; capite palpis thorace pedibusque albo punctatis, abdominis segmentis tarsisque luteo fasciatis; alis anticis luteo pallido sexmaculatis atomis chalybeis acervatim conspersis, fimbria apiculi alba; alis posticis luteis nigro late marginatis, fimbria apicali pallide lutea.

Male. Black. Head, palpi, and thorax with some white points. Abdomen with a luteous band on the hind border of each segment, and with a luteous apical tuft. Femora, tibiæ and joints of the tarsi with white tips; tarsi with a broad luteous band. Fore wings with six large pale luteous spots, of which the sixth is transverse and nearer the tip, and much longer than the others; a few small clusters of chalybeous speckles between the spots; fringe white

about the tip; under side with the 1st spot connected with the 2nd, and the 3rd with the 4th. Hind wings luteous, with a broad black border, which is undulating on its inner side; fringe pale luteous at the tip, white at the tip on the under side, where there is a little luteous streak in the hind part of the black border. Length of the body 8 lines; of the fore wings 25 lines. See Plate V, Fig. 1.

5. NYCTEMERA SIMPLEX. *Fem.* Alba, gracilis, capite nigro albo-univittato; palpis nigricantibus porrectis articulo 3^o lineari; antennis nigris setulosis; thorace margine antico luteo plagis quatuor vittaque postica nigris; abdomine guttis dorsalibus nigris, apice luteo; alis semihyalinis fusco marginatis; alis anticis margine fusco lato antice valde dilatato; alis posticis margine fusco sat angusto antice latiore postice intus latiore.

Female. White, slender. Head black, with a white stripe. Proboscis tawny. Palpi blackish, porrect, slender, extending somewhat beyond the head; 3rd joint linear, a little shorter than the 2nd. Antennæ black, slender, minutely setulose. Thorax with a luteous fore border; discs of the four tegulæ black; a black stripe on the hind part. Abdomen not extending beyond the hind wings, with a dorsal row of black dots; tip luteous. Legs smooth, very slender; spurs very short. Wings semihyaline, bordered with brown along the exterior border. Fore wings with the brown hue occupying more than one-third of the surface, much dilated in front. Hind wings with the brown hue much narrower, broadest in front, undulating along the inner side of its hind part. Length of the body 6 lines; of the wings 18 lines.

6. NYCTEMERA DECISA. *Mos.* Nigra; capite plaga antica alba; palpis porrectis subtus ochraceis articulo, 3^o parvo acuto; antennis pectinatis apice serratis; thorace et abdomine nigricante cinereis, illius margine antico ochraceo; pectore ochraceo bivittato; ventre vittis duabus macularibus albis; alis anticis striga longitudinali latissima strigaeque exteriore lata obliqua albis; alis posticis albis margine lato strigaeque lanceolata apud angulum interiorum nigris, fimbria apice alba.

Male. Black. Head with a white patch on the front. Proboscis picuous. Palpi porrect, ochraceous beneath, extending a little beyond the head; 3d joint acute, minute. Antennæ moderately

pectinated, serrated at the tips. Thorax and abdomen blackish cinereous, the former bordered with ochraceous in front. Pectus with two ochraceous stripes. Abdomen a little shorter than the interior border of the hind wings; under side with two macular white stripes. Femora striped with white. Wings elongate, hardly broad. Fore wings with a very broad white streak, which occupies nearly half the length from the base, and from two thirds to four-fifths of the breadth from the interior border; a broad exterior oblique white streak in the disc. Hind wings white, bordered with black along the costa, and much more broadly so about the tips and along the exterior border; the white hue excavated, and receiving a black lanceolate streak near the interior angle; fringe white at the tip; under side with an elongated white apical spot. Length of the body $7\frac{1}{2}$ lines; of the wings 24 lines. See Plate V, Fig. 2.

7. BALACRA OCHRACEA. *Mus.* Ochracea; capite pedibusque rufis; antennis nigris subseratis; abdomine alas posticae longissime superante; pedibus breviseulis, tibiis calcaratis, tarsis nigricantibus; alis anticis basi rufo bistrigatis; alis posticis brevissimis apice oblique truncatis.

Male. Ochraceous. Head and legs bright red. Antenna black, stout, very minutely serrated. Abdomen extending for much more than half its length beyond the hind wings. Legs stout, rather short; tibiae without spurs; tarsi blackish. Fore wings long, slightly rounded at the tips, with two bright red streaks which proceed from the base, and diverge from each other; exterior border rounded, extremely oblique. Hind wings obliquely truncated, not more than one-third of the length of the fore wings. Length of the body 9 lines; of the fore wings 24 lines.

The genus *Balacra* has been previously included in the *Arctiidae*, but it rather belongs to the *Zygenidae*. These two families are nearly allied, and their close affinity has been remarked by Dr Herrich-Schaeffer.

8. LEUCOPSUMIS CRYPTOCHROMA. *Mus.* Nigra; capite subtus pectore ventreque luteis, vertice argenteoalbo; palpis oblique ascendentibus verticem non superantibus, articulo 3^o lineari 2^o dimidio brevior; antennis pectinatis apice setulosis; pedibus subtus argenteis; alis anticis striga postmedia lata obliqua alba

diaphana; alis posticis vitta discoidali cyanea, subtus luteis nigro marginatis.

Male. Black, rather stout. Head luteous beneath; vertex silvery white. Palpi obliquely ascending, not rising higher than the vertex, 3rd joint linear, much more slender than the 2nd, and less than half its length. Antennæ moderately pectinated, setulose towards the tips. Pectus luteous. Abdomen extending rather beyond the hind wings; under side luteous, with incomplete black spots on each side; apical tuft very small, very pale testaceous beneath. Legs silvery beneath. Fore wings with a broad white hyaline oblique streak in the exterior part of the disk. Hind wings with an abbreviated metallic blue stripe in the disk; under side luteous, black about the tips, and along the exterior border. Length of the body 8 lines; of the fore wings 21 lines. See Plate V, Fig. 3.

9. ALETIS POSTICA. *Mus.* Ochracea; corpore nigro; capite palpis pectoreque albis, vertice nigro albo-bivittato; thorace albo maculato et bifasciato ochraceo-unifasciato; abdomine vittis tribus macularibus ventre pedibusque albis; alis anticis dimidio exteriore nigro plagam magnam transversam maculasque duas posteriores albas includente; alis posticis macula discoidali fasciaque lata marginali strigas sex albas lanceolatas includente nigris.

Male. Ochraceous. Body black. Head white; vertex black, with two white stripes. Proboscis pale testaceous. Palpi white. Antennæ pectinated, white above; branches short. Thorax with some white spots in front, with two white bands behind, and with a broad intermediate ochraceous band. Abdomen with three rows of white spots; under side, pectus, and legs white. Fore wings with somewhat less than half of the exterior surface black, including a large transverse white patch, and two posterior white spots. Hind wings with a black spot in the disk, and with a broad marginal black band, which includes six lanceolate white streaks. Length of the body 8 lines; of the fore wings 2 lines. See Plate V, Fig. 4.

10. PLEGORISTA SIMILIS. *Mus.* Ochracea; capite thoraceque atris albo notatis; capite subtus palpisque ochraceis, his apice albis; abdomine fusco basi ochraceo segmentis albo fasciatis; pedibus fuscis albo vittatis; alis anticis costa linea subcostali dimi-

diocque exteriore strigam latam guttam posticam guttasque marginales albas includente nigris; alis posticis margine lato nigro alboguttato.

Male. Ochraceous. Head, proboscis, antennæ, and thorax deep black. Head white along the eyes beneath, with a white dot on each side of the front, and with an anterior white band; under side ochraceous. Palpi ochraceous, rising higher than the vertex. 3d joint deep black, linear, as long as the 2d. Antennæ moderately pectinated. Thorax with four white dots, and with six posterior white stripes. Abdomen brown, ochraceous at the base; a white band on the hind border of each segment; apical tuft very small. Legs brown, striped with white. Fore wings with a black costa and a black subcostal line; almost half the exterior surface black, including a broad oblique white streak in the disk, a white dot near the interior angle, and white marginal dots. Hind wings with a broad black border, and with marginal dots like those of the fore wings. Length of the body $9\frac{1}{2}$ lines; of the fore wings 32 lines. See Plate V, Fig. 5.

Gen. SURINA.

Form. Corpus robustum, leve. Proboscis brevis. Palpi graciles, longissimi, verticem valde superantes; articulus 3^{us} subclavatus, 2^o longior. Antennæ validæ, subtilissime pubescentes. Thorax squamosus. Abdomen alas posticas paullo superans. Pedes robusti, laeves; calcaria valida. Ake antice longæ, angustæ, subfusiformes, costa perparum rotundata, margine exteriore perobliquo.

Female. Body stout, smooth. Proboscis short. Palpi smooth, slender, very long, rising very high above the vertex; 3rd joint subclavate, longer than the 2nd. Antennæ stout, extremely minutely pubescent. Thorax squamous. Abdomen extending a little beyond the hind wings. Legs stout, smooth; hind tibiae with four stout spurs, one in each pair much longer than the other. Wings long. Fore wings narrow, subfusiform, rounded at the tips; costa very slightly rounded; exterior border rounded, extremely oblique.

The greater length of the 3rd joint of the palpi, and the rounded basal part of the costa of the fore wing, distinguish this genus from *Hypsa*.

11. SURINA HYSPOIDES. *Form.* Pallide cinerea, subtus lutea;

capite nigro biguttato, palpis antennisque nigricantibus; thorace nigro quadri-guttato; alis anticis basi nigro guttatis, linea flavo-alba basi dilutata apicem versus dentata et arenata, vitta posteriore argenteo alba, spatio costali fusca, linea transversa post-media e guttis nigris; alis posticis luteis, triente apicali fusca plagam apicalem albam includente.

Female. Pale cinereous, luteous beneath. Head with two black dots between the antennae. Proboscis testaceous. Palpi and antennae blackish. Thorax with two black dots on each of the fore tegulae, and with two on each of the hind tegulae. Abdomen luteous, with three rows of black dots. Legs luteous. Fore wings with some black dots near the base, a yellowish white line extending from the base of the costa, where it is dilated, slightly dentate and curved in its exterior part, and ending near the tip of the wing; space between the line and the costa brown; a silvery white stripe bordering the antemedial hind side of the above line; a black guttular postmedial line extending from the end of the stripe to the interior border; under side with the exterior half brown. Hind wings luteous; apical third part brown, including an apical white patch. Length of the body 12 lines; of the fore wings 35 lines.

12. *HYPSA DISSOCIATA.* *Form.* Fusca; capite albo nigro quadrimaculato; thorace fasciis tribus macularibus maculisque quatuor posterioribus nigris, abdomine ochraceo, vitta interrupta nigra; alis anticis atomis plaga costali lineaque exteriore transversa angulosa albis, lineis tribus transversis e guttis nigris; alis posticis ochraceis fascia lata marginali cinereo-fusca.

Female. Brown. Head and thorax white. Head with four black spots, one on each side of the vertex, and one on each side of the front; frontal tuft black beneath. Rostrum testaceous. Antennae black, smooth. Thorax with three black bands, and with four posterior black spots, two of the latter on each side; 1st band interrupted in the middle; 2nd composed of two transverse streaks, and of two intermediate spots; 3rd of four black spots. Pectus cinereous. Abdomen ochraceous, extending rather beyond the hind wings, with a black stripe, which is interrupted on the hind border of each segment, and is dilated at the tip. Legs blackish; femora and tibiae fringed; tarsi with white dots. Wings long, narrow, fringed with whitish marks. Fore wings

rounded at the tips, with white speckles, with a white costal patch at a little beyond the middle, and with a slight transverse zigzag white line near the exterior border; some black dots on the veins forming three irregular transverse lines. 1st very near the base; 2nd antemedial; 3rd oblique, postmedial; under side cinereous brown, with a broad ochraceous streak along the basal part of the interior border; exterior border slightly rounded, very oblique. Hind wings ochraceous, with a broad marginal cinereous brown band, which extends along the exterior border, and is broadest at the tip. Length of the body 9 lines; of the wings 28 lines.

Gen. ZARACHA.

Ms. Corpus robustum. Proboscis nulla. Palpi robusti, perfecti; caput vix superantes; articulus 3^{us} minimus. Antennae subserratae, tridente basali subincrassatae et late pectinatae. Abdomen alas posticas longe superans, pileis longissimis vestitum; fasciculus apicalis minimus. Pedes sat validi; femora et tibiae subfimbriata; calcaria brevia. Alae longae, angustae; anticae apice rotundatae, margine exteriore convexo perobliquo.

Male. Body stout. Proboscis obsolete. Palpi stout, perfect hardly extending beyond the head; 3rd joint extremely minute. Antennae minutely serrated, slightly incrustated, and broadly pectinated for one third of the length from the base. Abdomen clothed with long hairs, extending much beyond the hind wings; apical tuft very small. Legs rather stout; femora and tibiae slightly fringed; spurs short. Wings long, narrow. Fore wings rounded at the tips; exterior border rounded, extremely oblique; anal vein united with the subanal vein at a short distance from the base.

13. ZARACHA EXTRANEA. *Ms.* Fusca, capite fronte albo, vertice palpis antennisque nigris; thorace margine antico ochraceo, tegulis anticis albis nigro unimaculatis; pectore abdomineque ochraceis, hoc vitta dorsali fusca interrupta; pedibus nigris, femoribus ochraceo pilosis; alis anticis venis basalibus fasciaque obliqua abbreviata albis; alis posticis ochraceis gutta discoidali nigra, fascia marginali lata fusca.

Male. Brown. Head white above; vertex, palpi, and antennae black. Thorax bordered with ochraceous in front; fore tegulae white, each including a black spot. Pectus and abdomen ochra-

ceous, the latter with an interrupted brown dorsal stripe. Legs black; femora with ochraceous hairs. Fore wings with the veins white at the base; an abbreviated oblique white band at three-fourths of the length, dilated in front. Hind wings ochraceous, with a black dot in the disk, and with a broad brown marginal band. Length of the body 8 lines; of the wings 21 lines.

14. SOLOE QUADRIGUTTATA. *Mus.* Ochracea, gracilis; palpis latissimis erectis verticem paullo superantibus articulo 3^o minimo; abdomine alas posticas longe superante, basi cervino, fasciulo apiculi longo nigricante; tibiis tarsisque anticis nigricantibus; alis macula discoidali nigra; alis anticis cervinis; alis posticis albidis, plaga apicali fusca.

Male. Ochraceous, slender. Proboscis moderately long. Palpi very broad, erect, rising a little higher than the vertex; 3rd joint extremely small. Abdomen fawn colour towards the base, extending much beyond the hind wings; apical tuft blackish, elongated. Legs long, smooth, slender; spurs long, slender; fore tibiae and fore tarsi blackish. Wings with a black discoidal spot. Fore wings fawn colour, slightly acute; exterior border rounded, very oblique. Hind wings whitish, with a brown apical patch; discoidal spot smaller than that of the fore wings. Length of the body 7 lines; of the wings 16 lines.

15. BARSINE INDECISA. *Mus.* Ochracea, subtus pallide lutea; palpis porrectis brevissimis gracillimis; antennis serratis; abdomine alas posticas non superante, sexualibus longis; alis anticis apice rotundatis, fasciis quatuor aut quinque obliquis macularibus purpureo rufis, disco subtus purpurascente; alis posticis flavis.

Male. Ochraceous; under side and abdomen pale luteous. Proboscis slender. Palpi porrect, very short and slender, not extending to the front of the head. Antennae serrated, setulose. Abdomen not extending beyond the hind wings; apical appendages long. Legs smooth, rather stout; hind tibiae with four short slender spurs. Fore wings rounded at the tips, with four or five oblique indistinct macular purplish red bands; exterior border rounded, very oblique; under side with a purplish disk. Hind wings yellow. Length of the body 3 lines; of the wings 9½ lines.

16. SPILSOMA RAMIVITTA. *Mus.* Alba; palpis nigris basi albis;

antennis nigris sat late pectinatis; thorace nigro sexmaculato; abdomine dorso ochraceo vittis tribus guttularibus nigris, segmento 1^o albotrinotato, lineis duabus ventralibus punctularibus nigris; pedibus luteo nigroque variis; alis anticis vitta media fusca ramos emittente albo maculata et guttata; alis posticis macula subcostali maculisque tribus submarginalibus fuscis.

Male. White. Palpi porrect, black except at the base, extending somewhat beyond the head; 3rd joint conical, less than one-fourth of the length of the 2nd. Antennæ black, rather broadly pectinated. Thorax with six black spots, one in the fore part, and one in the hind part of the disk, and one on each of the four tegule. Abdomen extending rather beyond the hind wings, ochraceous above, with three stripes of black dots; 1st segment white on each side, and with a white longitudinal middle streak; under side with two lines of black points. Legs partly tinged with luteous; tarsi and four anterior tibiæ black; hind tibiæ with a black subapical streak. Wings elongate. Fore wings rounded at the tips, with a brown middle stripe, which emits branches to the costa and to the interior border, and is dilated along its exterior part, and there contains some white spots and dots, and emits streaks to the exterior border. Hind wings with a brown subcostal spot, and with three brown spots near the exterior border. Length of the body 8 lines; of the wings 20 lines.

Gen. SCIATTA.

Met. Corpus sat robustum. Caput subproductum, antice rotundatum. Proboscis subobsoleta. Palpi porrecti, sat graciles, caput non superantes; articulus 3^{us} parvus, acutus. Antennæ breves, valide, serratæ. Abdomen alas posticas sat superans, sexualibus magnis. Pedes breves, tibiis breviter calcaratis. Alæ longæ, angustæ; anticæ apice rotundatæ margine exteriori subconvexo perobliquo.

Male. Body rather stout. Head prominent and rounded in front. Proboscis rudimentary. Palpi porrect, rather slender, not extending beyond the head; 3rd joint acute, not more than one-fourth of the length of the 2nd. Antennæ short, stout, serrated. Abdomen extending somewhat beyond the hind wings; a hooked appendage above, and two lateral valves at the tip. Legs short, moderately stout, spurs short. Wings long, narrow. Fore wings rounded at the tips; exterior border slightly rounded, very

oblique; 2nd inferior vein a little nearer to the 1st than to the 3rd.

17. *SCIATTA INCONCISA*. *Mus.* Alba; thorace antice ochraceo-fasciato; abdomine ochraceo vittis tribus macularibus nigris; alis anticis macula basali fascia antemedia plagisque exterioribus ochraceis; alis posticis fascia marginali ochracea informi valde interrupta.

Male. White. Thorax with a narrow ochraceous band on the fore tegulae. Abdomen ochraceous, with three stripes of black spots. Tarsi with black bands. Fore wings with an ochraceous spot at the base, with an ochraceous antemedial band, which is much dilated towards the interior border, and with some ochraceous exterior patches, of which the largest is costal. Hind wings with an irregular and much interrupted ochraceous marginal band. Length of the body 6 lines; of the wings $17\frac{1}{2}$ lines.

18. *ARTAXA SQUAMIFLAGA*. *Mus.* Pallide ochracea; palpis porrectis caput longe superantibus; antennis sat late pectinatis; thorace pilis longis vestito; alis anticis lineis duabus transversis obliquis undulatis saturate ochraceis, plaga diffusa e squamis atris.

Male. Pale ochraceous. Palpi slender, porrect, extending much beyond the head; 3rd joint conical, not more than one sixth of the length of the 2nd. Antennae short, rather broadly pectinated. Thorax clothed with long hairs. Abdomen a little shorter than the interior border of the hind wings; apical tuft rather large. Fore wings with two deep ochraceous transverse oblique undulating lines, a diffuse patch of deep black speckles between the lines, and a few speckles of the same hue beyond the 2nd line. Length of the body 5 lines; of the wings 15 lines.

Gen. ZARFA.

Mus. Corpus robustum. Caput bifasciculatum. Palpi graciles, porrecti, caput paullo superantes; articulus 3^{us} lanceolatus. Antennae late pectinatae, thorace breviores. Abdomen basi fasciculatum, alas posticas non superans; fasciculus apicalis brevis. Pedes breves, fimbriati. Alae antice longiuscule, sat angustae, apice valde rotundatae, margine exteriore convexo perobliquo.

Male. Body stout. Head with a tuft on each side at the base

of the antennæ. Palpi slender, porrect, extending a little beyond the head; 3rd joint lanceolate, more slender than the 2nd, and not more than one fourth of its length. Antennæ broadly pectinated, shorter than the thorax. Abdomen tufted above at the base, not extending beyond the hind wings; apical tuft short. Legs short; femora and tibiæ fringed. Fore wings rather long and narrow, much rounded at the tips; exterior border rounded, very oblique.

19. ZARFA LUNIFERA. *Mus.* Albo, capite apud oculos ochraceo; antennarum ramis fulvis thorace abdominis que crista pallide lutescentibus; tarsis nigro fasciatis; alis anticis testaceo albis, margine lunula que fusco marginata nigro biguttata pallide luteis, punctis discoidalibus nigris, linea marginali interrupta argenteo alba.

Male. White. Head ochraceous along the eye on the outer side. Antennæ with tawny branches. Thorax, except in front and crest of the abdomen, with a pale luteous tinge. Tarsi with black bands. Fore wings testaceous white, bordered with pale luteous; a pale luteous brown bordered lunule across the tip of the areolet, with a black dot at each end; some black points on the median vein; an interrupted silvery white line along the exterior border. Length of the body 8 lines; of the wings 23 lines.

Gen. SIZALISCA.

Mus. Corpus crassum. Proboscis nulla. Palpi porrecti, dense pilosi, caput vix superantes; articulus 3^{us} brevissimus. Antennæ breves, late pectinatæ, apice serratæ. Abdomen alas posticas sat superans; fasciculus apicalis longus. Pedes breves, fimbriati; tibiæ posticæ calcaribus duobus parvis apicalibus. Alæ anticæ longæ, apice rotundatæ, margine exteriore convexo perobliquo.

Male. Body thick. Proboscis obsolete. Palpi porrect, densely clothed with short hairs, hardly extending beyond the head; 3rd joint extremely short. Antennæ short, broadly pectinated to four fifths of the length, minutely serrated from thence to the tips. Abdomen extending somewhat beyond the hind wings; apical tuft elongate. Legs short; femora and tibiæ fringed; hind tibiæ with two short apical spurs. Wings elongate. Fore wings rounded at the tips; exterior border rounded, very oblique.

20. *SIZALISCA GRAMINOSA*. *Mas.* Herbida, subtus cinereo fulva; palpis nigris apice pallide cinereis; antennis cinereis ferrugineo ramosis; abdomine cinereo cervino vitta lata fasciculo que apicali viridibus; alis anticis nigro conspersis, lineis quatuor transversis angulosis liturisque marginalibus nigris, plaga discoidali fusca; alis posticis cinereo-cervinis.

Male. Grass green, cinereous fawn colour beneath. Palpi black, pale cinereous towards the tips. Antennæ cinereous, with ferruginous branches. Abdomen cinereous fawn colour, with a broad green stripe; apical tuft wholly green. Femora and tibiæ thickly clothed with green hairs. Fore wings thickly and minutely black speckled; two antemedial and two postmedial zig-zag transverse black lines; an intermediate brown patch in the disk; a row of irregular black marginal marks; fringe cinereous, with black spots. Hind wings cinereous fawn colour. Length of the body $10\frac{1}{2}$ lines; of the wings 27 lines.

Gen. VIANA.

Mas. Corpus sat gracile. Caput sat magnum, thorace arcte insertum. Proboscis nulla. Palpi validi, porrecti, subpilosi, caput paullo superantes; articulus 3^{us} acutus, brevissimus. Antennæ breviusculæ, late pectinatæ. Abdomen breve; fasciculus apicalis longus, subcompressus. Pedes breves, graciles, femoribus tibiis que subfimbriatis, tibiis posticis apice bicalcaratis. Alæ anticæ latæ, apice subrotundatæ, margine exteriori convexo subobliquo, areola discoidali brevi. Alæ posticæ abdomen longæ superantes, margine exteriori subangulato.

Male. Body rather slender. Head rather large, deeply inserted in the thorax. Proboscis obsolete. Palpi stout, porrect, clothed with short hairs, extending a little beyond the head; 3rd joint acute, very short. Antennæ rather short, broadly pectinated; joints very short. Abdomen much shorter than the interior border of the hind wings; apical tuft elongate, slightly compressed. Legs short, slender; femora and tibiæ thinly fringed; hind tibiæ with two long slender apical spurs. Wings broad. Fore wings more thickly clothed at the base, slightly rounded at the tips; exterior border rounded, slightly oblique; discoidal areolet near the costa, extending to somewhat beyond one third of the length; 2nd median nervule very slightly more remote from the 3rd than

from the 1st. Hind wings most thickly clothed along the interior border; exterior border slightly angular in the middle.

21. *VAENA VELUTINA*. *Mos.* Cervina; corpore subtus palpis subtus pedibusque albido testaceis; alis anticis linea postmedia nigricante obliqua fere recta intus concisa extus diffusa; alis posticis ochraceis, linea transversa arcuata fusciscente extus diffusa, spatio exteriori margineque interiore cervinis.

Male. Fawn colour. Body, palpi beneath, and legs whitish testaceous. Fore wings with a blackish oblique nearly straight postmedial line, which is concise on the inner side, and diffuse on the outer side. Hind wings ochraceous, except along the interior border, for full two thirds of the length from the base, this line bounded by a curved brownish line, which is diffuse on the outer side. Length of the body $6\frac{1}{2}$ lines, of the fore wings 21 lines.

Gen. VAENA.

Form. Corpus sat robustum. Caput parvum, thorace arcte insertum; frons plana. Proboscis brevissima, gracillima. Palpi porrecti, brevissimi, gracillimi, caput non superantes; articulus 3^{us} minimus. Antennæ glabræ. Abdomen alas posticas paullo superans. Pedes leves, breves, graciles; femora sulcata; calcaria parva. Alæ, antice longæ, acutæ, costa perparum convexa, margine exteriori angulato antice recto subobliquo postice excavato perobliquo. Alæ posticæ apice fere rectangulatæ.

Female. Body rather stout. Head small, deeply inserted in the thorax; front flat. Proboscis very short and slender. Palpi porrect, very short and slender, not extending beyond the head; 3rd joint extremely minute. Antennæ smooth. Abdomen extending a little beyond the hind wings. Legs smooth, short, slender; femora grooved; hind tibiæ with four short spurs. Wings moderately broad. Fore wings long, acute; costa very slightly rounded; exterior border angular in the middle, its fore half straight and slightly oblique, its hind half concave and very oblique. Hind wings nearly rectangular at the tips; interior border receding from the abdomen.

22. *VAENA FACLEOIDES*. *Form.* Latæa; thorace purpureo rufo; alis gutta discoidali nigra, atomis fasciisque tribus obliquis inde-

terminatis purpureo rufis; alis anticis fasciis 1^a et 2^a confusis; alis posticis fascia 3^a marginali valde interrupta.

Female. Luteous. Eyes black. Thorax purplish red. Wings with a black discoidal dot, with purplish red speckles, and with two oblique, very irregular purplish red bands, which are confused together in the fore wings; a third exterior and more oblique purplish red band, which is marginal and much interrupted in its hind wings. Fore wings with the 3rd band apparent on the underside. Hind wings with the 2nd band visible beneath. Length of the body 5 lines; of the fore wings 15 lines.

23. *POECILOCAMPA SUBLINEATA.* *Fem.* Ferrugineo rufa, subtus cinereo rufa; capite antice fasciculato; palpis porrectis brevissimis; antennis serratis; abdomine alas posticas paullo superante; pedibus brevibus, gracilibus, femoribus tibiis que pilosis; alis fascia obliqua nigricante; alis anticis apice rotundatis, gutta discoidali antemedialia alba, fascia media obliqua nigricante.

Female. Ferruginous red, cinereous red beneath. Body densely pilose. Head deeply inserted in the thorax, tufted in front. Palpi porrect, hardly extending beyond the hairs; 3rd joint lanceolate. Antennæ serrated. Abdomen extending a little beyond the hind wings. Legs short, slender; femora and tibiae pilose; spurs slender. Wings with an oblique blackish band which extends from near the tips of the fore wings to the outer part of the interior border of the hind wings. Fore wings rounded at the tips, with an oblique blackish middle band, and with an antemedial discoidal white dot; 3rd inferior vein, or median nervule, very remote from the 2nd; exterior border rounded, slightly oblique. Length of the body 6 lines; of the wings 18 lines.

24. *NYSSIA RUDIS.* *Mos et Fem.* Ochracea, crassa, capite supra thorace abdomineque basi viridibus; alis anticis nigro conspersis, fascia viridi informi obliqua antice dilatata. *Mos.* Antennis subserratis basi pectinatis.

Male and Female. Ochraceous, very stout. Head above, thorax and base of the abdomen grass green. Antennæ of the male slightly serrated, moderately pectinated from the base to one third of the length. Abdomen of the male extending somewhat

beyond the hind wings. Legs very hairy. Fore wings with black speckles, and with an irregular oblique grass-green band, which is dilated on its anterior half, and extends from one third of the length of the interior border to somewhat beyond the middle of the costa; exterior border slightly rounded, very oblique. Length of the body 9-11 lines; of the wings 27-30 lines.

Gen. ZIXARA.

Ms. Corpus robustum. Proboscis nulla. Palpi validi, vix ascendentes, caput paullo superantes; articulus 3^{us} lanceolatus. Antennæ brevès, late pectinatæ, apice versus simplices. Thorax squamosus. Abdomen alas posticas per paullo superans; fasciulus apicalis spissus, vix productus. Pedes validi; calcaria longa. Alæ anticæ apice rotundatæ, margine exteriorè convexo perobliquè.

Male. Body stout. Proboscis obsolete. Palpi stout, hardly ascending, extending a little beyond the head; 3rd joint lanceolate, not more than one-fourth of the length of the 2nd. Antennæ short, broadly pectinated to beyond half the length. Thorax squamous. Abdomen extending very little beyond the hind wings; apical tuft compact, slightly elongate. Legs stout; spurs long. Wings moderately broad. Fore wings rounded at the tips; exterior border rounded, very oblique.

25. ZIXARA NERVOSA. *Ms.* Ferruginea, subtus cinerea; alis anticis atomis striga basili transversa arcuata plagaque antemediâ cinereo submarginata nigris, lineâ postmediâ transversa venisque exterioribus cinereis; alis posticis cinereis.

Male. Ferruginous, cinereous beneath. Thorax mostly blackish. Fore wings irregularly black-speckled, with a curved transverse black streak near the base; an antemedial black patch near the interior border, broadly and irregularly bordered with pale cinereous on the outer side; a postmedial transverse pale cinereous line which does not extend to the costa; exterior veins pale cinereous; under side mostly blackish in front. Hind wings cinereous; under side with some black speckles in front. Length of the body $3\frac{1}{2}$ lines; of the wings 10 lines.

26. ANTHEREA RHODOPHILA. *Fam.* Ferrugineo-fusca; corpore subroseo, capite thoracisque tegulis anticis roseis; antennis nigris subserratis; alis basi roseis, lineis duabus obliquis albidis. 2

fusco marginata, alis anticis subfalcatis linea 1^a angulosa purpurascente suffusa, striga costali lata albida, macula discoidali angulata vitrea, alis posticis oculo magno ochraceo nigro roseo alboque marginato guttam vitream angulatam includente, margine exteriori subangulato.

Female. Ferruginous brown. Body dull rose colour. Head and fore tegulae of the thorax brown, the latter bordered in front and behind with rose colour. Antennae black, minutely serrated. Abdomen somewhat more than half the length of the interior border of the hind wings. Tibiae and tarsi black. Wings with a rosy tinge at the base, with an antemedial oblique whitish line, and with a postmedial more oblique whitish line, which is bordered with brown on the outer side; these markings are indistinct on the under side. Fore wings rounded at the tips, hardly falcate, with a broad whitish streak which extends along the costa from the inner side of the postmedial line; antemedial line zig-zag, with a purplish tinge; an angular moderately large vitreous spot in the disk. Hind wings with a large ochraceous ocellus in the disk; this ocellus includes an angular vitreous dot, and is bordered with black, then with rose colour, and lastly with white; exterior border slightly angular in the middle. Length of the body 11 lines; of the wings 54 lines.

27. *ANTHEREA INTERMISCENS.* *Fem.* Latescente viridis; thoracis tegulis albido marginatis; abdomine cinereo; alis lineis duabus obliquis nigricantibus fasciis que duabus latis indeterminatus purpureo albidis, linea 2^a albido marginata; alis anticis viae falcatis macula discoidali vitrea angulata, alis posticis oculo saturate ochraceo guttam vitream includente atro viridescente et purpureo albo marginato, margine exteriori subconvexo.

Female. Dull luteous green. Tegulae of the thorax with whitish borders. Abdomen with cinereous hairs, much shorter than the interior border of the hind wings. Wings with two oblique blackish lines, each having along its outer side a broad irregular purplish whitish band; 2nd line narrowly bordered with whitish on its inner side; under side very broadly cinereous towards the base, and with an exterior dentate oblique cinereous band, which is macular in the fore wings. Fore wings very slightly acute, hardly falcate, with an angular vitreous spot between the lines, which are nearly straight. Hind wings with the lines undulating,

the outer one contiguous to a large intermediate deep ochraceous ocellus, which includes a vitreous dot, and is bordered with deep black, and with pale dull green, and lastly with purplish white; exterior border slightly rounded. Length of the body $16\frac{1}{2}$ lines; of the wings 62 lines. See Plate VI, Fig. 6.

Gen. TACHOSA.

Mas et *Fem.* Corpus robustum. Caput fasciulo frontali brevissimo. Proboscis valida. Palpi robusti, erecti, verticem perpaullo superantes; articulus 3^{us} linearis, gracilis, 2^{us} dimidio brevior. Pedes vix robusti; femora subfimbriata; calcaria longa, gracilia. Alæ anticæ sat angustæ, apicæ subrotundatæ, margine exteriore convexo subobliquo. *Mas.* Antennæ setosæ, apices versus glabræ. Abdomen alas posticas longe superans; fasciulus apicalis longus, compressus. *Fem.* Antennæ glabræ. Abdomen non elongatum.

Male and *Female.* Body stout. Head with a very short frontal tuft. Eyes large, prominent. Proboscis robust, moderately long. Palpi stout, erect, rising very little higher than the vertex; 3rd joint linear, rounded at the tip, much more slender than the 2nd, and about one-third of its length. Antennæ slender, setose for two-thirds of the length in the male, smooth in the female. Abdomen tapering, extending very much beyond the hind wings in the male, shorter in the female; apical tuft of the male long, compressed. Legs hardly stout; femora slightly fringed; spurs long, slender. Wings rather narrow. Fore wings slightly rounded at the tips; exterior border rounded, slightly oblique; 1st, 2nd, and 3rd inferior veins approximate at the base; 4th remote.

28. TACHOSA ACRONYCTOIDES. *Mas* et *Fem.* Capite fusco fasciato; palpis fusco fasciatis; thorace fascia antica fusca; abdomine cinereo pilis basalibus longis; alis anticis nigro conspersis, fusco nebulosis, lineis tribus nigris angulosis, 1^a abbreviata, 2^a rammum emittente, 3^a albo submarginata, punctis marginalibus nigris, alis posticis fuscis, basi cinereis et subhyalinis.

Male and *Female.* Hoary, cinereous beneath. Head with a narrow brown band on the vertex. 2nd and 3rd joints of the palpi brown, hoary at the base and at the tip. Thorax with a brown band on the fore tegula. Abdomen cinereous, with long

hairs at the base. Fore wings black speckled, clouded with brown; three irregular zig-zag black lines; 1st line very near the base, not extending to the interior border; 2nd antemedial, emitting an oblique branch to the 3rd, which is postmedial, and partly white bordered; marginal points black. Hind wings brown, cinereous and slightly hyaline towards the base. Length of the body 8-9 lines; of the wings 18 lines.

29. TACHOSA METAPHLEARIA. *Fem*. Cinerea, subtas cervina; palpis nigris oblique ascendentibus verticem non superantibus, articulo 3^o lineari basi apice que albo, thorace fusco-quadrinaculato tegulis anticis nigricante marginatis, abdomine alisque posticis cervinis, alis anticis striga transversa basali annulo interrupta linea antemedialia transversa undulata maculis tribus lineaque exteriori transversa angulosa fuscis, linea postmedia angulosa pallide fusca, guttis apud lineam anteriorem guttisque marginalibus nigris, spatia marginali pallide fusco lineam albidam transversam angulosam includente.

Female. Cinereous, fawn colour beneath. Palpi black, smooth, moderately stout, obliquely ascending, not rising higher than the vertex; 2nd joint white at the tip; 3rd linear, white at the base and at the tip, less than half the length of the 2nd. Antennae slender. Fore tegulae of the thorax narrowly bordered with blackish in front; two brown spots on each of the hind tegulae. Abdomen and hind wings fawn colour, the former hardly extending beyond the latter. Legs cinereous, stout; femora and tibiae fringed; tips of the latter and of the joints of the tarsi whitish; spurs long, slender. Fore wings slightly rounded at the tips; a dark brown transverse streak near the base, joining an incomplete dark brown ringlet in the disk; an antemedial transverse undulating brown line accompanied by two dark brown spots, one costal, the other discoidal; a zigzag pale brown slightly post-medial transverse line, with a dark brown discoidal spot on its inner side; an exterior transverse zig zag brown line accompanied by black dots; space from thence to the exterior border pale brown, including a zigzag transverse white line; marginal dots black. Length of the body 6 lines; of the wings 17½ lines.

Gen. TUERTA.

Mos. Corpus cylindricum, sat validum. Caput et thorax dense

squamoso-pilosa. Proboscis medioeris. Palpi robusti, squamoso hirti, suberecti, verticem non superantes; articulus 3^{us} conicus. Antennae robustae, glabrae. Abdomen alas posticas paullo superans; dorsum cristatum; fasciulus apicalis spissus, elongatus. Pedes fimbriati, sat graciles; calcaria gracilia. Ale antice longae, apice subrotundatae, margine exterioro rotundo sat obliquo.

Moh. Body cylindrical, moderately stout. Head and thorax thickly clothed with squamous hairs. Proboscis moderately long. Palpi stout, thickly clothed with squamous hairs, nearly erect, applied to the head, not rising higher than the vertex; 3rd joint conical, not more than one sixth of the length of the 2nd. Antennae stout, smooth. Abdomen extending a little beyond the hind wings, with dorsal crests, and with a large elongate apical tuft. Legs rather slender; femora and tibiae fringed; spurs slender, moderately long. Wings elongate. Fore wings slightly rounded at the tips; exterior border rounded, rather oblique; 4th inferior vein remote from the other three, which are approximate to each other.

30. TERTIA CHRYSOCHLORA. *Mos.* Obscure ferrugineo fusca, subtus ochracea; antennis nigris; abdomine ochraceo nigro-cristato; alis anticis cinereo conspersis plaga maxima pallide viridi; alis posticis ochraceis fusco late marginatis fimbria pallide cinerea.

Moh. Dark ferruginous brown, ochraceous beneath. Antennae black. Abdomen ochraceous, with small black crests. Fore wings cinereous-speckled, with a very large pale green patch, which extends along the costa from the base to three fourths of the length, and is widest beyond its middle, where it occupies three fourths of the breadth of the wing. Hind wings ochraceous, with a broad brown border; fringe pale cinereous. Length of the body 8 lines; of the wings 20 lines. See Plate VI, Fig. 7.

Gen. PETRINA.

Fem. Corpus robustum. Proboscis medioeris. Palpi sat graciles, oblique ascendentes, verticem non superantes; articulus 3^{us} lanceolatus 2^{us} dimidio brevior. Antennae graciles. Abdomen alas posticas paullo superans. Pedes sat validi; calcaria longa, gracilia. Ale antice apice rotundatae, margine exterioro convexo perobliquo.

Femoh. Body stout. Proboscis moderately long. Palpi rather

slender, obliquely ascending, not rising higher than the vertex; 3rd joint lanceolate, less than half the length of the 2nd. Antennæ slender. Abdomen extending a little beyond the hind wings. Legs rather stout; spurs long, slender. Wings moderately broad. Fore wings rounded at the tips; exterior border rounded, its hind part very oblique; 1st, 2nd, and 3rd inferior veins approximate at the base; 4th remote.

31. *PETRINIA LIGNOSA*. *Fæm.* Cervina, subtus cinerea, thorace fusco-trifasciato, alis anticis margine costali fasciis duabus angulosis lineaque submarginali fracta atro marginata pallide testaceis, fascia 1^o informi apud medium dilatata, 2^o lineam angulatam emittente, atomis non nullis subcostalibus guttaque discoidali atris; alis posticis cinereo-fuscis.

Female. Fawn colour, cinereous beneath. Thorax with three dark brown bands. Fore wings pale testaceous along the costa at the base, and with two pale testaceous zig-zag bands; 1st band antemedial, very irregular, dilated in the middle; 2nd postmedial, emitting from its inner side an angular line which proceeds towards the costa; a submarginal dislocated pale testaceous line irregularly bordered with deep black; a testaceous marginal festoon; some deep black subcostal speckles, and a deep black discoidal dot. Hind wings cinereous brown; fringe pale cinereous. Length of the body 6 lines; of the wings 16 lines.

32. *AGROTIS HEMILEUCA*. *Mas.* Fusca, subtus sordide alba; palpis robustis perparum ascendentibus caput superantibus, articulo 2^o extus nigricante, 3^o conico; antennis sat late pectinatis apice simplicibus; thorace nigro unifasciato; abdomine sordide albo alas posticas sat superante fasciulo apicali fulvo; alis anticis lineis tribus nigris transversis angulosis, fascia diffusa striga longitudinali interrupta guttisque marginalibus nigricantibus, orbiculari et reniformi nigro marginatis; alis posticis niveis.

Male. Ferruginous brown, dingy white beneath. Palpi stout, very slightly ascending, extending somewhat beyond the head; 2nd joint blackish on the outer side; 3rd conical, not more than one fourth of the length of the 2nd. Antennæ rather broadly pectinated, except near the tips. Thorax with a black band on the fore tegula. Abdomen dingy white, extending rather beyond the hind wings; apical tuft tawny. Legs brown; tips of the

tarsal joints white. Fore wings with three zigzag transverse black lines, and with a diffuse blackish band between the 2nd and 3rd lines; a blackish longitudinal streak between the 2nd and 3rd lines, interrupted by the black bordered orbicular and reniform marks which have the usual form; three whitish costal points near the tip; marginal dots blackish. Hind wings pure white. Length of the body 7 lines; of the wings 16 lines.

33. *AGROTIS CATENIFERA*. *Fem.* Fusca, subtns cinerea; palpis oblique ascendentibus verticem non superantibus, articulo 3^o conico, abdomine cinereo alas posticas sat superante; alis anticis linea basali dimidio exteriori dilatata punctis que submarginalibus et marginalibus nigris, striga discoidali interrupta nigricante, orbiculari et reniformi magnis nigro marginatis hujus disco nigricante cinereo; alis posticis cinereis basi albidis.

Female. Brown, cinereous beneath. Palpi obliquely ascending, not rising higher than the vertex; 3rd joint conical, about one-sixth of the length of the 2nd. Abdomen cinereous, extending rather beyond the hind wings. Fore wings with a black line which extends from the base, and is dilated along its outer half, and terminates behind the orbicular mark; a blackish streak in the disk interrupted by the orbicular and reniform marks, which are large and black bordered, and of the usual form; disk of the reniform blackish cinereous; a transverse line of black points nearer to the exterior border than to the reniform; marginal points black. Hind wings cinereous, whitish towards the base. Length of the body 9 lines; of the wings 19 lines.

Gen. TAVILA.

Mas. Corpus breve, sat robustum. Proboscis mediocris. Palpi graciles, erecti, verticem paullo superantes; articulus 3^{us} lanceolatus, 2^o duplo brevior. Antennæ setulosæ. Thoracis tegule anticæ breves. Abdomen alas posticas sat superans; fasciculus apicalis parvus, subcompressus. Pedes breves, graciles; calcaria longa, gracilia. Alæ anticæ latæ, apice subrotundatæ, plaga subtns basali squamosa glabra, costa apud medium subdilatata.

Male. Body smooth, moderately stout. Proboscis of the usual length. Palpi slender, erect, rising a little higher than the vertex; 3rd joint lanceolate, about half the length of the 2nd. Antennæ minutely setulose. Fore tegule of the thorax short.

Abdomen extending somewhat beyond the hind wings; apical tuft small, slightly compressed. Legs smooth, slender; spurs long, slender. Wings broad. Fore wings slightly rounded at the tips; costa slightly dilated in the middle; exterior border slightly rounded and oblique; under side with a smooth squamous patch in the disk near the base; 2nd inferior vein equally remote from the 1st and from the 3rd; 3rd thrice further from the 4th than from the 2nd.

34. TAVILA INDETERMINATA. *Mus.* Pallide straminea, palporum articulo 2° nigro-vittato, antennis fulvis, thoracis tegulis anticis ochraceis, alis anticis postice pallidissime cervinis, lineis duabus transversis connexis pallide fuscis, 1° angulosa, 2° valde flexa.

Male. Pale straw colour. Second joint of the palpi with a black stripe along the outer side. Antennæ tawny. Fore tegule of the thorax ochraceous. Fore wings with two pale brown transverse lines; 1st line antemedial, zig-zag, connected on the costa with the 2nd, which is much bent outward; hind half very pale fawn colour. Length of the body 5 lines; of the wings 11 lines.

35. ERASTRIA DECORA. *Mus.* Cinerea; corpore subtus, palpis subtus pedibusque argenteo albis; palpis oblique ascendentibus, articulo 2° squamoso fimbriato, 3° lanceolato; thorace pallide roseo, tegulis anticis cinereis, alis anticis lineis transversis nigris undulatis albo marginatis, macula basali fasciaque media antice inordinatim dilatata maculamque nigram costalem includente, linea postmedia transversa alba angulosa, maculisque tribus exterioribus pallide roseis, strigis exterioribus nigris; alis posticis apud marginem interiorem lituratis.

Male. Cinereous. Body beneath, palpi beneath, and legs silvery white. Palpi obliquely ascending; 2nd joint with a short squamous fringe; 3rd lanceolate, more than half the length of the 2nd. Antennæ smooth, stout. Thorax pale rose colour; fore tegule cinereous. Fore wings with a few black undulating transverse white bordered lines; a pale rose coloured spot near the base, and a pale rosy middle band, which is excessively dilated in front, and includes a black costal spot; an exterior zig zag white line, which is accompanied by three pale rosy spots, and by some more exterior black streaks. Hind wings with markings near the

interior border, like those of the fore wings. Length of the body $3\frac{1}{2}$ lines; of the fore wings 10 lines.

36. HYDRELLIA TERMINATA. *Fem.* Cineræa, palpis squamoso fimbriatis oblique ascendentibus verticem non superantibus, articulo 3 lanceolato; abdomine alas posticas paullo superante; alis anticis purpurascente chalybeo et viridescente subnietis apice subrotundatis, fascia marginali fusca intus valide rotundata; alis posticis pallide fuscis.

Female. Cineræous, rather stout. Proboscis long, stout. Palpi slender, obliquely ascending, not rising higher than the vertex, with a squamous fringe; 3rd joint lanceolate, more than half the length of the 2nd. Antennæ slender. Abdomen extending a little beyond the hind wings. Fore wings slightly rounded at the tips, with an indistinct purplish and chalybeous and pale greenish tinge; a brown marginal band, which is much dilated and rounded on the inner side; exterior border slightly rounded, hardly oblique. Hind wings pale brown above. Wings beneath with a brown discoidal dot, and a brown marginal festoon. Length of the body $4\frac{1}{2}$ lines; of the fore wings 14 lines.

37. MICRA CONVERGENS. *Mos.* Pallidissime testacea subtus albida; palpis porrectis caput longe superantibus, articulo 3 lanceolato; alis anticis acutis, apud marginem anteriorem fusco pallido nebulosis, lineis quatuor obliquis fuscis, 3^a et 4^a versus marginem anteriorem testaceo pallido marginatis; alis posticis albidis.

Male. Very pale testaceous, whitish beneath. Palpi slender, porrect, extending much beyond the head; 3rd joint lanceolate, nearly half the length of the 2nd. Fore wings acute, clouded towards the exterior border with pale brown, adorned with four oblique tawny lines; 1st line extending from near the base to the costa at half the length; 2nd, 3rd, and 4th converging slightly towards the costa, on approaching which they are retracted; 3rd and 4th mostly in the brownish part, where they are bordered with pale testaceous on the outer side; a submarginal pale testaceous festoon, bordered with dark brown on the outer side. Hind wings whitish. Length of the body $2\frac{3}{4}$ lines; of the wings 8 lines.

38. *MICRA INTRICATA*. *Fem.* Albida, palpis porrectis caput sat superantibus articulo 3^o lanceolatae; alis anticis cervinis linea antemedial alba arcuata antice furcata plagamque fuscam includente, plaga fusca majore subapicali albo interlineata et marginata.

Female. Whitish, slender. Palpi porrect, smooth, slender, extending somewhat beyond the head; 3rd joint lanceolate, about half the length of the 2nd. Abdomen lanceolate, not extending beyond the hind wings. Fore wings fawn colour, acute, moderately broad; an antemedial curved white line, which is forked in front, and there includes a costal brown patch; a larger costal brown patch near the tip, interlined with white, and bordered by two white lines which are partly connected; exterior border slightly rounded, moderately oblique. Length of the body 3 lines; of the wings 8 lines.

39. *EUTELIA QUADRILITURATA*. *Fem.* Fusca, crassa; palpis validis erectis verticem sat superantibus, articulo 3^o lineari 2^o paullo brevioribus; thorace antice cinereo-biguttato; alis anticis strigis duabus albis, 1^a furcata maculaque exteriore cinerea comexis, lineis duabus exterioribus albis transversis angulosis nigro marginatis 2^a submarginali ex parte duplicata, lunulis marginalibus nigris albido marginatis; alis posticis macula apud angulum interiorem alba.

Female. Brown, very stout, cinereous-brown beneath. Palpi stout, erect, rising somewhat higher than the vertex; 3rd joint linear, rounded at the tip, a little shorter than the 2nd. Antennae stout. Thorax with a cinereous dot on each side in front. Abdomen paler brown, extending rather beyond the hind wings. Legs stout; femora fringed; spurs whitish; tarsi with whitish bands. Fore wings rounded at the tips, with two white streaks; 1st streak forked, proceeding from a little before the middle of the costa to the disk, adjoining a cinereous spot on its outer side; 2nd proceeding obliquely from a little beyond the middle of the interior border to the disk; two exterior transverse zig-zag black bordered white lines, the 1st incomplete, the 2nd submarginal, and partly double; marginal lunules black, whitish-bordered; fringe with whitish dots. Hind wings with a white spot near the interior angle, and with a cinereous marginal festoon. Wings beneath with some dark brown zig-zag transverse lines, which are most

numerous on the hind wings. Length of the body 5 lines; of the wings 12 lines.

Gen. NEDROMA.

Mas. Corpus robustum. Caput fasciculo frontali munitum. Proboscis elongata. Palpi validi, breves, oblique ascendentes, verticem superantes; articulus 3^{us} gracilis, linearis, 2^o brevior. Thorace antice carinatus. Abdomen alas posticas paullo superans; fasciculus apicalis subcompressus. Pedes fimbriati, sat robusti; calcaria longa, gracilia. Alæ anticæ latæ, vix acutæ, costa basi subrotundata, margine interiore excavato.

Male. Body stout. Head with a frontal tuft, which forms a ridge above, and extends somewhat beyond the face. Proboscis long. Palpi stout, smooth, obliquely ascending, rising higher than the vertex; 3rd joint linear, rounded at the tip, rather shorter and much more slender than the 2nd. Fore tegule of the thorax forming a ridge. Abdomen extending a little beyond the hind wings; apical tuft moderately large; slightly compressed. Legs rather stout; femora and fore tibiæ fringed; spurs long, slender. Wings broad. Fore wings hardly acute; costa slightly rounded near the base; exterior border rounded, not oblique; interior border excavated beyond the middle; 1st, 2nd, and 3rd inferior veins approximate at the base; 4th remote.

40. NEDROMA FERRUGINEA. *Mas.* Ferruginea, subtus ferrugineo cinerea; alis anticis transverse nigro-conspersis; alis posticis ferrugineo fuscis subtus transverse fusco subconsersis.

Male. Ferruginous, ferruginous cinereous beneath. Fore wings above transversely black-speckled. Hind wings ferruginous-brown; under side transversely and slightly brown speckled. Length of the body 7½ lines; of the wings 18 lines.

Gen. STRIDOVA.

Form. Corpus leve, robustum. Caput latiusculum. Proboscis brevis. Palpi oblique ascendentes, verticem superantes; articulus 2^{us} brevi fimbriatus; 3^{us} linearis, 2^o paullo brevior. Antenna glabra, graciles. Thorax squamosus. Abdomen alas posticas vix superans. Pedes breves, robusti vix pilosi. Alæ anticæ breves, latæ, apice rectangulata, margine exteriori subconvexo vix obliquo.

Female. Body smooth, stout. Head rather broad. Proboscis

short. Palpi obliquely ascending, rising higher than the vertex; 2nd joint with a short fringe; 3rd linear, a little shorter than the 2nd. Antennæ smooth, slender. Thorax squamous. Abdomen hardly extending beyond the hind wings. Legs short, stout, hardly pilose; hind tibiæ with four long spines, one in each pair longer than the other. Wings broad, short. Fore wings rectangular at the tips; exterior border slightly rounded, hardly oblique; 4th inferior vein, or median nervule, not very remote from the other three which are contiguous at the base.

The short wings and the structure of the veins chiefly distinguish this genus from the other *Hypogrammide*.

41. STRIDOVA ALBIGUTTA. *Fem.* Murina, subtus argenteo cinerea; capite albo-fasciato; alis anticis atomis lineis duabus transversis undulatis indeterminatis macula discoidali punctis parvis costalibus punctisque marginalibus nigricante notatis albis; alis posticis subtus cinereis puncto discoidali atomisque fuscis.

. *Female.* Mouse colour; under side silvery cinereous. Head with a white band between the eyes. Wings with a cinereous fringe, which is interlined with brown. Fore wings with a few white speckles; two indeterminate undulating transverse white lines; a few costal white points, and a row of marginal white blackish-marked points; a white discoidal spot. Hind wings beneath cinereous, thickly speckled with brown; a brown point in the disk. Length of the body 4 lines; of the wings 10 lines.

42. BRIARDA CONTURBATA. *Fem.* Fusca; palpis oblique ascendentibus verticem sat superantibus articulo 3^o lineari, 2^o duplo brevioribus; abdomine nigrocaute-bicristato, alas posticas paullo superante; alis anticis cinereo-fuscis, plaga magna postica antemedia pallide cinerea striga basali fascia informi lineis tribus exterioribus transversis angulosis cinereo marginatis striga transversa postmedia strigaeque subapicali obscure fuscis; alis posticis fuscis, striga basali plagaque discoidali cinereis semihyalinis.

. *Female.* Brown. Palpi rather slender, obliquely ascending, rising somewhat higher than the vertex; 3rd joint linear, rounded at the tip, about half the length of the 2nd. Pectus cinereous, thickly clothed with long hairs. Abdomen extending a little beyond the hind wings, with two blackish crests, one on the 1st segment, the other on the 3rd segment; under side pale pearly

cinereous. Fore wings cinereous brown, slightly rounded at the tips; a large pale cinereous antemedial patch near the interior border, contiguous to a dark brown streak, which proceeds from the base, and is bounded on the outer side by an irregular dark brown band, which is broadest towards the costa; three exterior transverse indistinct zig zag dark brown cinereous bordered lines; a broad transverse dark brown streak between the 2nd and 3rd lines, and a little longitudinal subcostal subapical dark brown streak; exterior border rounded, rather oblique. Hind wings brown, with a cinereous semi-hyaline streak proceeding from the base, and with a patch of the same hue in the disk. Length of the body 7 lines, of the wings 17 lines.

Gen. TOLNA.

Mas. Corpus robustum, squamosum. Caput magnum; frons lata. Palpi validi, fere erecti, verticem paullo superantes; articulus 2^{us} latus; 3^{us} lanceolatus, 2ⁱ dimidio brevior. Antennæ subtilissime setulosæ. Abdomen alas posticas non superans; fasciculus apicalis longiusculus, subcompressus. Pedes validi, femoribus tibiisque dense pilosis. Alæ anticæ latæ, acutæ, margine exteriori vix convexo. Alæ posticæ margine exteriori subangulatæ valde rotundato.

Male. Body stout, squamous. Head large, front broad. Proboscis moderately long. Palpi stout, nearly erect, rising a little higher than the vertex; 2nd joint broad; 3rd lanceolate, less than half the length of the 2nd. Antennæ nearly imperceptibly setulose. Abdomen tapering from the base to the tip, not extending beyond the hind wings; apical tuft elongated, slightly compressed. Legs stout; femora and tibiæ densely clothed; spurs long, slender. Wings broad, not long. Fore wings acute; interior border hardly curved, moderately oblique; 4th inferior vein very remote from the other three. Hind wings, with the exterior border much rounded, indistinctly angular in the middle.

It may be distinguished from the genus *Tavia* by the much shorter third joint of the palpi.

43. TOLNA VESPICOLOR. *Mas.* Fusca; capite thoraceque cinereo conspersis; alis anticis viridi caruleo purpureoque conspersis, lineis sex transversis angulosis non conspersis, fascia alba obliqua postmedia, reniformi angusta e atomis viridibus, plaga

costali subapicali magna ferruginea albo marginata, punctis marginalibus albis; alis posticis striga apicali alba.

Male. Brown. Head and thorax minutely speckled with cinereous. Palpi testaceous on the inner side. Abdomen pale cinereous beneath at the tip. Joints of the tarsi and spurs with pale cinereous tips. Fore wings flecked with green, with pale blue, and with pale purple scales; six zig-zag transverse lines of the ground hue, but without speckles, these lines are distinguished by the clustering speckles with which they are irregularly bordered; the 4th, 5th, and 6th lines are partly included in an oblique white band, which extends from beyond the middle of the costa to the hinder part of the exterior border; reniform mark narrow, formed by green speckles; a large ferruginous costal patch between the band and the tip, bordered with white on the hind side, and including three white costal points; marginal festoon black, including white points, bordered with testaceous on the outer side; fringe with elongated cinereous dots; under side with a white band, with exterior pale testaceous costal points, and with black white-marked points along the exterior border. Hind wings with a white apical streak, and with a black line along the exterior border; this line is bordered with pale testaceous on the outer side, and includes four white points; under side thinly speckled with white, with marginal points like those of the fore wings, with a transverse streak in the disk, and with two exterior bands, which are unspeckled, and a little darker than the ground hue. Length of the body 12 lines: of the fore wings 30 lines. See Plate VII, Fig. 10.

44. OPHIDERES DIVITIOSA. *Fem.* Ferruginea subtus fusca; abdomine ochraceo fusco-vittato; alis anticis purpureo suffusis, fasciis duabus antemediis lineis que duabus obliquis, linea exteriori perobliqua subundulata, strigis duabus transversis adhuc exterioribus lineaque intermedia transversa fuscis, plaga basali fasciaque postmedia viridibus, reniformi sordide viridi fusco marginata; alis posticis luteis, basi fuscis, margine lato purpureo fusco, maculis marginalibus albidis.

Female. Ferruginous, brown beneath. Abdomen ochraceous, with a brown stripe which occupies the whole of the tip, and is attenuated and abbreviated towards the base above, but is broad and entire beneath. Fore wings acute, purple-tinged, with

two oblique antemedial brown bands, and with two oblique brown lines; 1st line between the base and the 1st band; 2nd between the bands; an exterior very oblique slightly undulating brown line, which approaches the costa at four-fifths of its length, and is very near the 2nd band on the interior border, and is irregularly bordered by a grass-green band on the outer side; a slight grass-green patch near the base; reniform mark dark dull green, brown bordered, transverse, irregularly oval; an exterior transverse brown streak, and a more exterior angular brown line, which borders the fore part of the outer side of the green band; a submarginal transverse brown streak; underside with an irregular transverse luteous streak in the disk. Hind wings luteous, brown at the base, with a broad purplish brown border, and with whitish marginal spots. Length of the body $13\frac{1}{2}$ lines, of the wings 41 lines. See Plate VII, Fig. 11.

45. *ACILEA OPHISMOIDES*. *Fem.* Ferruginea; palpis erectis verticem sat superantibus, articulo 3^o lineari 2^o triplo brevioribus; alis anticis fascia media glauco-alba nigro marginata antice dilatata extus angulosa, striga apicali obliqua nigricante, punctis submarginalibus nigris; alis posticis fuscis, fascia nigricante postmedia diffusa latissima, maculis duabus magnis albis 1^a apicali 2^a marginali.

Fem. de. Ferruginous. Body cinereous beneath. Palpi erect, rising somewhat higher than the vertex; 3rd joint linear, much more slender than the 2nd, and about one-third of its length. Abdomen not extending beyond the hind wings; apical tuft slightly compressed. Tarsi spinulose. Fore wings broad, slightly rounded at the tips, with a broad glaucous white middle band, which is narrowly black bordered on each side, and is dilated towards the costa, and is oblique and zig-zag on its outer side, and contains three black points, one indicating the orbicular mark, and two the reniform; a blackish streak extending obliquely from the tip to the disk; a row of submarginal black points; fringe blackish, bordered with cinereous; under side with a white band, which is not dilated in front, and does not extend to the costa. Hind wings brown, with a diffuse postmedial very broad blackish band; two large white spots, the 1st apical, the 2nd on the exterior border, and near the 1st; under side pale cinereous brown, with an antemedial brown lunule, and two

exterior transverse brown lines. Length of the body 11 lines; of the wings 28 lines.

46. *ACHLEA PARTITA*. *Fem.* Fusca; palpis fere erectis verticem superantibus, articulo 3^o sublanceolato 2^o dimidio brevior; alis anticis nigrofuscis fascia media lata cervina fusco nebulosa nigro bipunctata antice dilatata, linea exteriori nigra angulosa, linea adhuc exteriori nigricante obliqua vix undulata cervino submarginata, fascia postmedia strigaeque exteriori subtus albis; alis posticis plagis duabus marginalibus liturisque nonnullis apud angulum anteriorem albis.

Female. Brown. Body cinereous beneath. Head and thorax rather darker than the abdomen. Palpi smooth, nearly erect, rising higher than the vertex; 3rd joint nearly lanceolate, more slender than the 2nd, and about one-third of its length. Fore wings blackish brown, with a broad fawn-coloured middle band, which is much dilated in front, is concise and hardly oblique on the inner side, and is mostly limited on the outer side by a zig-zag black line; it is partly and slightly clouded with brown, and includes two black points, which represent the reniform mark; an oblique hardly undulating blackish line beyond the zig-zag line, partly bordered with fawn colour on its outer side; submarginal points black; under side with a white postmedial band, and with a white streak along the fore part of the exterior border. Hind wings with two white patches, one at the tip of the costa, the other on the fore part of the exterior border; some small white marks near the interior angle; under side whitish from the base to beyond the middle, including two brown bands; an exterior slender dentate white band. Length of the body 9 lines; of the wings 22 lines. See Plate VI, Fig. 8.

47. *HYLETRA ATRIPLAGA*. *Mas.* Ferruginea; capitis vertice thoraceque antico atris; palpis oblique ascenditibus verticem non superantibus, articulo 2^o nigricante notato, 3^o lineari brevi; alis anticis nigro conspersis, plagis duabus magnis guttaeque intermedia atris cinereo marginatis, plaga 1^a basali postice attenuata lineam subareuatum emittente, 2^a discoidali lineam arcuatam lineaque rectam emittente, linea exteriori cinerea transversa brevi undulata nigricante-marginata, puncto basili punctisque marginalibus nigris; alis posticis nigricantibus, basi cinereis, fimbria pallide testacea.

Male. Ferruginous, cinereous beneath. Vertex of the head and forepart of the thorax deep black. Palpi stout, obliquely ascending, not rising higher than the vertex; 2nd joint blackish in the middle on the outer side; 3rd, linear, rounded at the tip, not more than one fourth of the length of the 2nd. Antennae slender, minutely setose. Abdomen not extending beyond the hind wings; apical tuft very small. Legs blackish, stout; tibiae slightly fringed; tarsi with cinereous bands. Fore wings moderately broad, minutely black speckled, rounded at the tips; two large patches and an internaecliate dot, deep black, cinereous bordered; 1st patch near the base, attenuated hindward, and extending to the interior border, and emitting a slightly curved line to the costa; 2nd patch in the disk, in a longitudinal line with the dot, emitting a curved line to the interior border, and a straight line to the hind end of an exterior short transverse undulating cinereous blackish-bordered line; a basal point and marginal points black; a blackish line along the exterior part of the costa, including three testaceous points. Hind wings blackish, cinereous towards the base; fringe pale testaceous. Wings beneath with a blackish discoidal spot (which is lunate in the fore wings), with an exterior incomplete undulating blackish line, and with a very broad marginal blackish band. Length of the body $6\frac{1}{2}$ lines; of the wings 18 lines.

48. *HYPLETRA BIANGULATA.* *Mos.* Cervina, capite postice nigricante; palpis oblique ascenditibus verticem non superantibus, articulo 3^o conico; thorax antice nigricante; alis anticis subfalcatis, fascia obliqua nigricante postice biangulata et pallide marginata, spatio exteriori fusco-nebuloso, striga costali antemedialia fusca brevissima; alis posticis pallide fuscis apud costam cinereis.

Male. Fawn colour, paler beneath. Head blackish along the hind border. Palpi stout, obliquely rounding, not rising higher than the vertex; 3rd joint conical, not more than one-eighth of the length of the 2nd. Antennae minutely serrated. Fore tegulae of the thorax blackish. Abdomen a little shorter than the interior border of the hind wings; apical tuft very small. Fore wings broad acute, subfalcate, with a blackish straight band, which extends from near the base of the interior border to near the tips of the costa, and forms on its hind side two large angles, which have pale borders, the space beyond being mostly clouded with brown; marginal festoon blackish, very slender; a dark brown

oblique very short costal antemedial streak. Hind wings pale brown, cinereous along the costa. Length of the body 7 lines; of the wings 20 lines.

49. *HYPETRA(?) NANA*. *Fem.* Ferruginea; palpis cinereis oblique ascendentibus verticem paullo superantibus, articulo 2^o extus fusco, 3^o lanceolate; alis anticis lineis duabis transversis fuscis 1^a abbreviata obliqua 2^a valde arenata, linea submarginali fuscescente unguosa vix conspicua, striga antica transversa lata utra, reniformi fusco marginata; alis posticis fuscis.

Female. Ferruginous, cinereous beneath. Palpi cinereous, rather slender, obliquely ascending, rising a little higher than the vertex; 2nd joint mostly dark brown on the outer side; 3rd, lanceolate, much shorter than the 2nd. Abdomen extending a little beyond the hind wings. Legs smooth, moderately stout. Fore wings with two transverse brown lines; 1st line antemedial, oblique, extending from the disk to the interior border; 2nd, postmedial, much curved outward; a brownish, zig-zag, very indistinct submarginal line; a broad, deep black streak extending from the costa to the disk, notched on the outer side, hiding part of the reniform mark; the latter large, brown bordered, of the usual form; underside without markings. Hind wings brown. Length of the body 4½ lines; of the wings 11 lines.

50. *ATHYRMA ALBICINCTA*. *Fem.* Ferruginea; capite fascia guttisque duabus anterioribus albis; palpis fere erectis, verticem multo superantibus articulo 3^o lineari longo; thorace albo bifasciato; abdomine fuscescente cinereo, macula basali ferruginea; alis anticis purpurascente ferrugineis, plaga postica maxima nigricante albomarginata, lineis duabus anticis transversis fuscis angulosis; alis posticis fuscis antice cinereis.

Female. Ferruginous, smooth, testaceous-cinereous beneath. Head with a slender white band on the vertex, and with a white dot on each side of the front. Palpi nearly erect, rising very much higher than the vertex; 3rd joint linear, slightly acute, rather shorter than the 2nd. Thorax with two slender white bands bordering the tegulae. Abdomen brownish cinereous, not extending beyond the hind wings, with a ferruginous spot at the base. Fore wings purplish ferruginous, acute; a very large blackish patch resting on the interior border and bordered with white in

front: two brown zig zag lines extending from the costa to the patch; fringe cinereous, interlined with blackish. Hind wings brown, cinereous in front. Length of the body $6\frac{1}{2}$ lines; of the wings 17 lines.

51. *OPHIUSA SUBENESCENS*. *Mos.* Cinereo fusca; palpis fere erectis verticem paullo superantibus, articulo 3^o longi conico; alis anticis nigro conspersis, fasciis duabus atris fusco extus late marginatis, 1^a apud marginem interiorem producta, 2^a antice dilatata flexa et fere interrupta, fascia marginali abbreviata obscure fusca, lineis quatuor fuscis transversis undulatis, reniformi fusco aut nigro marginata; alis posticis lineis tribus fuscis transversis subangulosis.

Male. Cinereous brown, rather slender, cinereous beneath. Palpi stout, nearly erect, rising a little higher than the vertex; 3rd joint elongate, conical, not more than one-fourth of the length of the 2nd. Antennae slender, minutely setulose. Abdomen hardly extending beyond the hind wings; apical tuft very small. Legs slender: femora and tibiae fringed. Fore wings acute, minutely black-speckled, with two deep black bands; a brown space along the outer side of each band; 1st band prolonged outward along the interior border; 2nd widened in front, where it is bent outward, and nearly interrupted; a dark brown marginal band, which is abbreviated at each end; two transverse undulating brown lines near the base, and two more between the bands, the latter lines between the interior border and the reniform mark, which is bordered with brown or with black; under side with a broad abbreviated dark brown submarginal band. Hind wings with three brown transverse postmedial slightly zig zag lines. Length of the body 9 lines; of the wings 22 lines. See Plate VI, Fig. 9.

52. *GRAMMODES CURVILINEA*. *Fam.* Fusca; corpore alisque subtus facieque albidis; palpis oblique ascendentibus subtus fimbriatis; alis fascia antemedia alba recta; alis anticis fascia postmedia tenui alba angulata biarcuata extus corvino marginata, fasciis subtus duabus fuscis 1^a furcata; alis posticis maculo submarginali alba, fasciis subtus tribus fuscis 3^a latissima maculas albas includente.

Female. Brown. Face, palpi beneath and body beneath whitish.

Palpi obliquely ascending, fringed beneath; 3rd joint linear, about half the length of the 2nd. Abdomen cinereous brown. Legs mostly white. Wings with a white straight antemedial band. Fore wings with a postmedial slender white band, which has two curves, and is bordered with fawn colour on the outer side, and forms an acute inward angle in the middle; under side whitish, with two brown bands; 1st band in the middle, forked in front, much broader than the 2nd, which is nearer the exterior border, and is dilated near the costa. Hind wings with a white spot near the exterior border; under side white, with three brown bands; 1st and 2nd bands slender, dentate; 3rd very broad, including some white spots. Length of the body 6 lines; of the fore wings 16 lines.

Gen. OBBA.

Mos. Corpus robustum. Caput planum; fasciculus frontalis brevis. Proboscis medioeris. Palpi validi, fore erecti, verticem sat superantes; articulus 3^{us} lanceolatus, 2^o duplo brevior. Antennæ setosæ. Abdomen alas posticas non superans; fasciculus apicalis medioeris, subcompressus. Pedes sat graciles, late fimbriati; calcaria longa, gracilia. Alæ anticae latæ, subacutæ, basi lanuginosæ, costæ dimidio basali late fimbriato, margine exteriori rotundato.

Male. Body stout. Head flat above, with a short frontal tuft. Proboscis moderately long. Palpi stout, nearly erect, rising somewhat higher than the vertex; 3rd joint lanceolate, about half the length of the 2nd. Antennæ setosæ; the bristles slightly decreasing in length from the base to the tips. Abdomen tapering, not extending beyond the hind wings; apical tuft moderately long, slightly compressed. Legs rather slender; femora and tibiæ broadly fringed; spurs long, slender. Wings broad. Fore wings slightly acute; woolly at the base; costa straight, with a broad flat smooth softened fringe along half the length from the base; exterior border rounded, moderately oblique.

53. OBBA PROMPTA. *Mos.* Fulva; alis nigro conspersis, linea obliqua nigra recta, linea exteriori nigricante angulosa, punctis submarginalibus nigris; alis anticis linea 1^a rufescente marginata.

Male. Tawny, a little paler beneath. Wings thinly and minutely black speckled, with a straight black line, which extends

from the tips of the fore wings to a little beyond the middle of the interior border of the hind wings, and is reddish bordered on the outer side in the fore wings; an exterior zig zag blackish line, and a row of submarginal black points; fringe blackish beneath. Length of the body $5\frac{1}{2}$ lines; of the wings 21 lines.

Gen. ZIROXA.

Æm. Corpus vix robustum. Proboscis breviuscula. Palpi porrecti, squamosi, sat graciles; vix ascendentes, caput longe superantes; articulus 3^{us} lanceolatus, 2 brevior. Antennæ graciles, glabræ. Abdomen breviusculum. Pedes graciles, leves; calcaria longa, gracilia. Alæ antiçæ latæ, acutiæ, margine exteriorè rotundato subobliquo.

Female. Body hardly stout. Proboscis rather short. Palpi porrect, squamous, hardly ascending, rather slender, extending much beyond the head; 3rd joint lanceolate, much more than half the length of the 2nd. Antennæ slender, smooth. Abdomen rather shorter than the interior border of the hind wings. Legs slender, smooth; spurs long, slender. Wings broad. Fore wings acute; exterior border rounded, slightly oblique; 1st, 2nd, and 3rd inferior veins approximate at the base; 4th moderately remote.

The structure of the palpi distinguishes this genus from the other *Poophilidæ*.

54. ZIROXA MARGINATA. *Æm.* Cinereo fusca; alis fascia marginali pallidiore cinereo undulatum marginata, linea media transversa indistincta undulata obscure fusca; alis antiçis linea ante-media fusca undulata valde indistincta, gutta discoidali cinerea.

Female. Cinereous brown. Wings with a paler marginal band, which is divided from the darker hue by a cinereous undulating line; a dark brown indistinct undulating middle line; fringe brown, cinereous at the base; under side without markings. Fore wings with a line like the one before mentioned, but more indistinct, and nearer the base; a cinereous dot in the disk between the lines. Length of the body 6 lines; of the wings 18 lines.

55. AMPHIGONIA FUMOSA. *Mos.* Ferrugineo cinerea; fasciculo frontali porrecto, palpis oblique ascendentibus articulo 2 late fimbriatis; antennis setosis; abdomine alas posticas vix superante fasciculo apicali parvo; pedibus fimbriatis; alis obscure cinereis,

fasciis tribus diffusis ferrugineis, lineis duabis transversis angulosis obscure fuseis; alis anticis lunula interrupta punctoque costali albis, margine exteriori subangulato; alis posticis margine exteriori subangulato.

Male. Ferruginous cinereous, paler beneath. Frontal tuft porrect, acute. Palpi obliquely ascending; 2nd joint thickly fringed in front. Antennæ minutely setose. Abdomen hardly extending beyond the hind wings; apical tuft small. Legs slender; femora and tibiæ fringed; tarsi with white dots above. Wings elongate, dark cinereous, with three diffuse ferruginous bands, and with two zig zag dark brown lines; 1st line between the 1st and 2nd bands; 2nd, between the 2nd and 3rd bands; markings less distinct beneath. Fore wings acute, with an interrupted white lunule in the 2nd band, and with an elongated white costal point in front of the 3rd band; exterior border slightly angular. Hind wings with the exterior border more angular. Length of the body 7 lines; of the wings 19 lines.

56. *THERMESIA (?) SEJUNCTA.* *Fem.* Fusca, robusta; vertice, thoracis margine antico plagisque duabus rufis; palpis oblique ascendentibus verticem longe superantibus, articulo 2^o fimbriato, 3^o subclavato apice albido; alis latis, fasciis tribus flavis rufo conspersis valde indeterminatis et interruptis, linea submarginali undulata nigricante, puncto discoidali punctisque marginalibus nigris; alis anticis acutis, margine exteriori convexo subobliquo.

Female. Brown, stout, cinereous testaceous beneath. Vertex of the head, fore border of the thorax, and a patch on each of the hind tegulae bright red. Palpi obliquely ascending, rising much higher than the vertex; 2nd joint fringed above; 3rd subclavate, whitish at the tip, much more slender than the 2nd, and a little more than half its length. Abdomen brownish-cinereous, not extending beyond the hind wings. Legs smooth, rather slender. Wings broad, with three very irregular and much interrupted yellow bands, which are speckled with bright red; an undulating irregular blackish line near the exterior border; a discoidal point, and marginal points and marginal festoon blackish; under side without markings. Fore wings acute; bands brighter and more distinct than those of the hind wings; exterior border rounded, slightly oblique. Length of the body 7½ lines; of the wings 20 lines.

57. *CAPNODES(?) TRINOTATA*. *Form.* Ferrugineo rufa, robusta; abdomine cinereo rufo; pedibus fimbriatis; alis latis, nigro subconspersis, linea postmedia transversa e punctis albis, punctis marginalibus nigris; alis anticis acutis, strigis tribus costalibus niveis, margine exteriori subconvexo subobliquo.

Female. Ferruginous red, stout, paler and with a cinereous tinge beneath. Antennae slender. Abdomen cinereous red, shorter than the interior border of the hind wings. Legs stout; femora and tibiae fringed; spurs slender, very long. Wings broad, thinly and minutely black speckled, with a postmedial transverse line of white points, and with marginal black points. Fore wings acute, with three pure white irregular streaks extending from the costa to the disk; 1st streak near the base; 3rd on the inner side of the row of white points; four exterior whitish elongated costal points; exterior border slightly rounded and oblique. Length of the body $7\frac{1}{2}$ lines; of the wings 20 lines.

The palpi are destroyed in the specimen described. It may be distinguished from *C. serrulatata* by having no transverse blackish lines on the fore wings.

Gen. RICLA.

Form. Corpus sat robustum. Caput fasciculo frontali longo peracuto. Palpi graciles, laeves, oblique ascendentes, verticem valde superantes; articulus 3^{us} linearis, apicem versus subdilatatatus, 2^{us} multo brevior. Abdomen alas posticas non superans. Pedes graciles fimbriati; calcaria longa, gracilia. Alae anticae longae, apice rectangulate, costa vix convexa, margine exteriori angulato.

Female. Body moderately stout. Frontal tuft elongate, very acute. Palpi slender, smooth, obliquely ascending, rising very much higher than the vertex; 3rd joint much shorter than the 2nd, linear, slightly dilated towards the tip, which is truncated. Abdomen not extending beyond the hind wings. Legs slender; femora and tibiae fringed; spurs long, slender. Wings elongate. Fore wings rectangular at the tips; costa hardly rounded; exterior border forming an obtuse angle in the middle; 2nd inferior vein as near to the 3rd as to the 1st; 4th very remote.

58. *RICLA EXPANDENS*. *Form.* Ferruginea, fasciculo frontali albo marginato, palporum articulo 3^o cano nigro consperso; alis anticis linea media transversa alba arcuata nigro marginata, fascia

exteriore indeterminata albido flava, spatio adhuc exteriore pallide purpurascente ferrugineo guttas quatuor fuscas cinereo marginatas includente, linea postica cinerea arcuata fusco marginata apud marginem anteriorem dilatata, linea basali fusca angulosa, gutta discoidali nigra; alis posticis cinereo fuscis.

Female. Ferruginous, cinereous beneath. Frontal tuft bordered with white. Third joint of the palpi hoary, black speckled, wholly black towards the tip, which is hoary. Abdomen cinereous. Fore wings with a white transverse middle inward-curved line, which is black bordered on its inner side, and is accompanied on the outer side by a whitish-yellow incomplete irregular band; exterior space pale purplish ferruginous, with four brown partly cinereous-bordered dots, which form a transverse undulating line in front of a cinereous curved line; the latter is brown-bordered on both sides, and extends from the apical part of the interior border towards the hind part of the exterior border, where it terminates in a brown patch; a zig-zag transverse brown line near the base, and an antemedial black dot in the disk. Hind wings cinereous brown; fringe cinereous. Length of the body $6\frac{1}{2}$ lines; of the wings 18 lines.

Gen. RACLIA.

Form. Corpus leve, sat validum. Caput fasciculo frontali porrecto longissimo acuto. Proboscis breviuscula. Palpi graciles, leves, oblique ascendentes, verticem longe superantes; articulus 3^{us} linearis, 2^o paullo longior. Antennae sat robustae. Abdomen alas posticas sat superans. Pedes leves, graciles, tibiis anticis fasciculatis, calcareibus longissimis gracillimis. Alae anticae acutae, vix falcatae, costa perparum convexa margine exteriore postico rotundato obliquo.

Female. Body smooth, moderately stout. Frontal tuft porrect, acute, extending much beyond the head. Proboscis rather short. Palpi slender, smooth, obliquely ascending, rising much higher than the vertex; 3rd joint linear, rounded at the tip, a little longer than the 2nd. Antennae rather stout. Abdomen extending somewhat beyond the hind wings. Legs smooth, slender; fore legs short, their tibiae tufted; spurs very long and slender. Wings moderately broad. Fore wings acute, hardly falcate; costa very slightly rounded; hind part of the exterior border rounded and oblique; 2nd inferior vein much nearer to the 3rd than to the 1st; 4th remote.

59. *RACIA CERVINA*. *Fem.* Pallide cervina, subtus pallide testacea; alis anticis fusco pallido transverse strigatis, lineis tribus transversis pallide cinereis fusco pallido marginatis, 1^a et 2^a antice approximatis, 2^a et 3^a subangulosis, puncto discoidali guttis duabus submarginalibus punctisque marginalibus fuscis; alis posticis fuscis, apud costam albidis.

Femule. Pale fawn colour, pale testaceous beneath. Fore wings transversely and indistinctly streaked with pale brown; three transverse pale cinereous lines, which are slightly bordered with pale brown; 1st and 2nd converging much from the interior border to the costa; 2nd and 3rd slightly zig zag; 3rd diverging hindward from the 2nd; a brown point in the disk between the 1st and 2nd lines; two small brown dots beyond the 3rd line and brown marginal points; under side reddish fawn colour in the disk, speckled with brown along the costa, whitish along the interior border. Hind wings above brown, whitish along the costa. Length of the body 6 lines; of the wings 15 lines.

Gen. ORIXA.

Mos. Corpus gracile. Caput fasciulo frontali brevi. Palpi graciles, arcuati, utrinque fimbriati, verticem valde superantes; articulus 3^{us} acutus, 2^{us} paullo brevior. Antennae graciles, setulosae. Abdomen alas posticas paullo superans; fasciulus apicalis parvus. Pedes graciles, breves; tibiae posticae fimbriatae; calcaria longa, gracilia. Alae anticae latae, apice subrectangulatae, costa perparum convexa, margine exterioro rotundato vix obliquo.

Male. Body slender. Frontal tuft short. Palpi slender, curved, fringed on both sides, longer than the breadth of the head, rising very much higher than the vertex; 3rd joint acute, a little shorter than the 2nd. Antennae slender, minutely setulose. Abdomen extending a little beyond the hind wings; apical tuft small. Legs slender, smooth; hind tibiae with a short thick fringe; spurs long, slender. Wings broad. Fore wings hardly acute, nearly rectangular at the tips; costa very slightly rounded; exterior border rounded, hardly oblique; veins with the usual structure.

60. *ORIXA FILIFERA*. *Mos.* Saturate ferrugineo fusca; capite fascia alba angulata; alis anticis lineis duabus transversis puncto que discoidali intermedio chalybeis nigro marginatis.

Male. Dark ferruginous brown. Head with a white angular band on the front. Pectus cinereous. Abdomen dark brown; under side whitish, except at the tip. Legs beneath and tarsi wholly pale cinereous. Fore wings with two transverse slightly black-bordered chalybeous blue lines, and with an intermediate discoidal point of the same hue; 1st line near the base, more oblique than the 2nd. Hind wings dark brown. Length of the body 7 lines; of the wings 17 lines.

61. PYRALIS (*l*) CRASSALIS. *Fem.* Argenteo cinerea, robusta; capite subtus pectore pedibusque argenteo albis; fasciulo frontali acuto; palpis porrectis late fimbriatis caput sat superantibus, articulo 3^o minimo; abdomine alas posticas paullo superante; alis atomis nonnullis fasciisque duabus undulatis indeterminatis nigricantibus, punctis marginalibus nigris; alis anticis fascia 1^a apud costam attenuata 2^a flavescente marginata; alis posticis fascia 2^a flavescente intus late marginata.

Female. Silvery cinereous, stout. Head beneath, pectus and legs silvery white. Head rather large; frontal tuft acute. Palpi perfect, broadly fringed beneath, extending somewhat beyond the head; 3rd joint very minute. Antennæ smooth, slender. Abdomen extending a little beyond the hind wings. Legs smooth, slender; hind tibiae with four long slender spurs. Wings with some blackish speckles, and with two irregular undulating blackish bands; marginal points black; under side with a black discoidal dot, and with two incomplete blackish bands. Fore wings acute; 1st band attenuated towards the costa; 2nd bordered on the inner side by a yellowish line; exterior border rounded, slightly oblique. Hind wings with the 2nd band bordered on the inner side by a yellowish band, which is dilated in the middle. Length of the body 4½ lines; of the fore wings 10½ lines.

62. SAMEA FIGURALIS. *Fem.* Cervina, subtus alba; abdomine fusco segmentis albo marginatis; alis fasciis duabus obliquis albis diaphanis nigro marginatis; alis anticis fascia 2^a furcata lineam nigram undulatum includente.

Female. Fawn colour, white beneath. Abdomen brown; hind borders of the segments white. Legs white, long, smooth, slender. Wings with two pellucid iridescent oblique white black bordered bands, which are irregular in the fore wings; 1st band antemedial.

extending to the base in the hind wings; 2d, postmedial, forked in the fore wings, including a black undulating line; marginal festoon black; fringe white; under side with the pellucid bands broadly and irregularly blackish-bordered. Length of the body $3\frac{1}{2}$ lines; of the fore wings 10 lines.

Gen. VATICA.

Form. Corpus gracile. Oculi magni, prominuli. Proboscis valida; palpi ascendentes; articulus 2^{us} late fimbriatus; 3^{us} brevissimus. Thoracis tegulae nostericae longae. Abdomen alas posticas longe superans. Pedes leves, graciles; femora postica fimbriata; tibiae posticae brevissimae. Alae anticae amplae, subaenatae, margine exteriori convexo. Alae posticae fasciculo longo apud marginem interiorem.

Emale. Body slender. Eyes large, prominent. Proboscis stout. Palpi ascending, applied to the head; 2nd joint broadly fringed; 3rd very short. Hind tegulae of the thorax long. Abdomen extending much beyond the hind wings. Legs smooth, slender; hind femora fringed; fore tibiae very short; hind tibiae with one spur in each pair extremely long. Wings ample. Fore wings slightly acute; exterior border rounded, moderately oblique. Hind wings with an elongate tuft in the disk near the interior border, which is broadly fringed.

The tuft on the hind wings distinguishes this genus from *Bolys*, to which it is closely allied.

63. VATICA RUTHALIS. *Form.* Ochracea; corpore subtus pedibusque argenteo albis; femoribus anticis extus nigricantibus, tibiis anticis apice nigris; alis anticis vittis diffusis spatioque exteriori rufis, linea transversa postmedia arcuata costa fimbriaque nigris; alis posticis nigro late marginatis.

Emale. Ochraceous. Body beneath and legs silvery white. Proboscis testaceous. Fore femora blackish on the inner side; fore tibiae with black tips. Fore wings with diffuse red stripes, which extend to a black curved transverse postmedial line, beyond which the wings are red; costa and fringe black; under side with the apical part corresponding to the red part above blackish. Hind wings with a broad black border. Length of the body 6 lines; of the fore wings 11 lines.

64. *BOTYS INTERFIXALIS*. *Fem.* Pallide flava, subtus albida, abdomine alas posticas longe superante, alis lineis duabus fuscis transversis obliquis, fascia marginali lata pallide aenea; alis anticis punctis costalibus nigricantibus, linea 1^a apud costam retracta, 2^a interrupta et abbreviata, linea exteriori fusca fasciam marginalim attingente.

Fem. de. Pale yellow, slender, iridescent, whitish beneath. Abdomen extending much beyond the hind wings. Wings with two transverse oblique brown lines, and with a broad pale æneous marginal band. Fore wings acute, with several blackish costal points; 1st line retracted near the costa; 2nd interrupted in the disk, abbreviated near the costa; a 3rd exterior brown line, which joins the hind part of the marginal band. Length of the body 3 lines; of the wings 7 lines.

Nearly allied to *B. villiusdis* and to *B. Neoclisalis*.

Gen. XACCA.

Fem. Corpus robustum, breve, squamosum. Caput inter antenas cornibus duobus porrectis lanceolatis. Proboscis mediocris. Palpi graciles, leves, oblique ascendentes, verticem sat superantes; articulus 3^{us} linearis, 2^{us} dimidio brevior. Antennæ valida, breviusecule. Abdomen lanceolatum, alas posticas longe superans; latera fasciculata. Pedes sat validi; coxæ anticæ longæ, clavatæ, apice fasciculatæ; calcaria longa, gracilia. Alæ anticæ acutæ, margine exteriori subconvexo.

Fem. de. Body stout, smooth, squamous. Head in front with two porrect lanceolate appendages between the antennæ. Proboscis moderately long. Palpi slender, smooth, obliquely ascending, rising somewhat higher than the vertex; 3rd joint linear, rounded at the tip, less than half the length of the 2nd. Antennæ stout, rather short. Abdomen lanceolate, with small tufts along each side, extending much beyond the hind wings. Legs rather stout; fore coxæ long, clavate, densely tufted towards the tips; spurs long, slender. Wings moderately broad. Fore wings acute; exterior border slightly rounded, moderately oblique; 2nd inferior vein more than twice further from the 3rd than from the 1st; 4th emitted near the base of the wing.

65. *XACCA TRIGONALIS*. *Fem.* Cupreo purpureo, capite palpis thoraceque antico ochraceis; coxis anticis luteis purpureo fasci

culatis, tibiis quatuor posterioribus luteis purpureo bifasciatis; alis anticis striga basali maculaque magna trigona costali ochraceis.

Female. Cupreous purple. Head, palpi, and fore part of the thorax ochraceous. Proboscis tawny. Pectus pearly white. Abdomen beneath pale testaceous, except towards the tip. Fore coxæ luteous, with purple tufts; four posterior tibiæ luteous, purple at the base and at the tips; tarsi luteous. Fore wings with a transverse ochraceous streak at the base, and with a large ochraceous costal triangular spot at a little before half the length. Length of the body $5\frac{1}{2}$ lines; of the wings 11 lines.

Gen. OPULA.

Form. Corpus crassum. Proboscis brevis. Palpi graciles, arcuati, oblique ascendentes, verticem non superantes; articulus 3^{us} linearis, vix acutus, 2^{us} duplo brevior. Antennæ robustæ, glabræ. Abdomen alas posticas sat superans. Pedes validi, leves; calcaria longa, gracilia. Alæ anticæ longissimæ, acutæ, margine anteriore convexo perobliquo.

Female. Body thick. Proboscis short. Palpi slender, curved, obliquely ascending, not rising higher than the vertex; 3rd joint linear, hardly acute, about half the length of the 2nd. Antennæ stout, smooth. Abdomen extending somewhat beyond the hind wings. Legs stout, smooth; spurs long, slender. Wings very long, moderately broad. Fore wings acute; exterior border rounded, very oblique; 4th inferior vein very remote from the 3rd.

66. OPULA IMPLETALIS. *Form.* Cervina, alis fasciis quatuor obliquis macularibus indeterminatis pallide flavescentibus cervino sublimateis.

Female. Fawn colour. Wings with four oblique macular and very irregular pale yellowish bands, which are slightly and irregularly interlined with the ground hue; under side like the upper surface. Length of the body 7 lines; of the wings 18 lines.

67. GEOMETRA CONGRUA. *Mos.* Viridis; capite palpis antennis pectore abdomine pedibusque albis; palpis porrectis caput sat superantibus, articulo 2^o parvo acuto; antennis sat late pectinatis; alis latis albo conspersis, puncto discoidali nigro, limbria pallidis.

sine viridi; alis anticis subacutis margine exteriori fere recto; alis posticis margine exteriori subangulato.

Male. Grass green. Head, palpi, antennæ, pectus, abdomen, and legs white. Palpi smooth, slender, porrect, extending rather beyond the head; 3rd joint acute, less than one-fourth of the length of the 2nd. Antennæ rather broadly pectinated. Abdomen much shorter than the interior border of the hind wings. Legs smooth, slender; hind tibiæ with four rather short spurs. Wings broad, with a black point in the disk, with many shining white speckles, and with a very pale green fringe. Fore wings slightly acute; exterior border almost straight. Hind wings with the exterior border slightly angular in the middle. Length of the body 5 lines; of the fore wings 15 lines.

Gen. TRAINA.

Form. Corpus gracile. Proboscis longiuscula, sat valida. Palpi porrecti, graciles, subtus fimbriati, caput paullo superantes; articulo 3^o conicus. Antennæ gracillimæ, subsetulose. Abdomen breviusculum. Pedes longi, gracillimi; calcaria longa, gracilia; tibiæ anticae incisæ, calcaribus apicalibus fimbriatis. Alæ latissimæ; anticae acutæ, margine exteriori subconvexo; posticae costa apice truncata, margine exteriori vix inciso.

Female. Body slender. Proboscis rather long and stout. Palpi porrect, slender, fringed beneath, extending a little beyond the head; 3rd joint conical, less than one-fourth of the length of the 2nd. Antennæ very slender, very minutely setose. Abdomen much shorter than the interior border of the hind wings. Legs long, very slender; fore tibiæ notched beneath at somewhat beyond the middle, with fringed apical spurs; hind tibiæ with four slender spurs. Wings very broad. Fore wings acute; exterior border slightly rounded, moderately oblique. Hind wings with the apical part of the costa obliquely truncated; exterior border very slightly festooned.

68. TRAINA STRAMINEATA. *Form.* Pallidissime straminea; capite ferrugineo bifasciato; thorace antice ferrugineo; alis anticis ferrugineo conspersis, linea recta obliqua linea exteriori angulosa lineaque marginali ferrugineis; alis anticis costa lineaque P^a trans-versa ferrugineis, gutta subcostali producta nigra; alis posticis puncto discoidali nigro.

Forma. Very pale straw colour. Head with two annular bands. Thorax ferruginous in front. Wings minutely spotted with ferruginous; a straight ferruginous line extending from a little beyond three fourths of the length of the costa of the fore wings to a little beyond three fourths of the length of the inner border of the hind wings; an exterior zigzag ferruginous line and a margined ferruginous line. Fore wings with a ferruginous costa and with a ferruginous transverse line near the inner tip of a transversely elongated black discoidal dot. Hind wings with a black point on the disk. Length of the body 8 lines; of the wings 24 lines. See Plate VII, Fig. 12.

Gen. TIMANA.

Form. Corpus gracile. Caput porrigens. Proboscis brevis. Palpi validi, oblique ascendunt; articulus 3^{us} minimus. Antennae tenues glabrae, graciles. Abdomen subcompressum. Pedes brevissimi, longi, gracillimi; tibiae posticae subincrassatae, quadrilocaratae. Alae anticae latae, acutae, margine exteriori subrotundato subobliquo. Alae posticae abdomen superantes.

Forma. Body slender. Head rather prominent. Proboscis short. Palpi stout, obliquely ascending, not rising so high on the vertex; 3rd joint extremely small. Antennae smooth, slender. Abdomen slightly compressed, rather shorter than the interior border of the hind wings. Legs long, smooth, very slender; hind tibiae very slightly incrassated, with four spurs, the 1st pair much longer than the apical pair. Wings broad. Fore wings acute; exterior border slightly rounded and oblique; areolet much less than half the length of the wing.

69. TIMANA COSTALIS. *Form.* Lutea; vertex cinerea; fronte ferrugineo conspersa et unifasciata; antice albae; pectore ventrique albis; pedibus posticis albidis; alis ferrugineo conspersis et bifasciatis, fascia 1^a postmediae angulata intus dilata, 2^a submarginali interrupta infirma, guttis submarginalibus argenteis nigro marginatis; alis anticis fascia ferruginea antemediana recta angusta, vitta costali cinerea, gutta discoidali argentea nigro marginata; alis posticis puncto discoidali argenteo nigro marginato.

Forma. Luteous. Vertex of the head cinereous; front with

ferruginous speckles, and a ferruginous band, its fore part white. Pectus and under side of the abdomen white. Hind legs whitish. Wings with transverse ferruginous speckles, and with two ferruginous bands: 1st band postmedial, forming an acute outward angle in each wing, diffuse on the inner side; 2nd band submarginal, interrupted, and very irregular, accompanied by silvery partly black-bordered dots of various size and shape; under side pale, with the markings much less complete. Fore wings with an antemedial slender straight ferruginous band; a cinereous costal stripe, which is contiguous to a silvery black-bordered dot in the disk. Hind wings with a silvery black-bordered discoidal point. Length of the body $7\frac{1}{2}$ lines; of the wings 19 lines. See Plate VII, Fig. 13.

70. *BOARMIA ABRUPTARIA*. *Mos.* Alba, robusta; capite antico palpisque fuscis, vertice luteo bifasciato; thorace maculis duabus anticis nigris luteo marginatis duabusque posticis luteis; abdominis segmentis luteo fasciatis; alis fusco conspersis, lineis duabus duplicatis interruptis angulosis guttisque marginalibus fuscis; alis anticis maculis tribus costalibus fuscis; alis posticis margine exteriore subundulato vix angulato.

Male. White, stout. Head in front and palpi dark brown; vertex with two luteous bands. Antennae black, white at the base, broadly pectinated to two thirds of the length. Thorax with a black broadly luteous-bordered spot on each of the fore tegulae, and with a luteous spot on each side near the hind border. Abdomen not extending beyond the hind wings, with a luteous band on the hind border of each segment, and with a few black speckles; apical tuft small. Legs stout, mostly blackish. Wings dimly brown speckled, with two very incomplete double zig zag brown lines; 1st line antemedial, apparent near the interior border of the hind wings; 2nd postmedial, apparent near the interior border of the fore wings and of the hind wings; some submarginal clusters of speckles, and a row of marginal brown dots. Fore wings acute, with three brown costal spots; exterior border slightly rounded, very oblique. Hind wings with the exterior border slightly festooned, hardly angular. Length of the body 9 lines; of the wings 22 lines.

71. *TEPHROSIA DIFFUSA*. *Fon.* Cinereo-viridis, gracilis; palpis

oblique ascendentes verticem vix superantibus, articulo 3 conico; alis amplis fusco subconspersis, lineis duabus obliquis angulosis fuscis, guttis marginalibus nigricantibus, macula discoidali fasciâque submarginali lata atomaria subtus fuscis; alis anticis apice subrotundatis; alis posticis margine exteriori inciso.

Emol. Cinereous green, slender, pale cinereous beneath. Palpi obliquely ascending, hardly rising higher than the vertex; 3rd joint conical, not more than one sixth of the length of the 2nd. Abdomen shorter than the interior border of the hind wings. Wings ample, indistinctly brown speckled, with two brown zigzag oblique lines, one antemedial, the other postmedial; marginal dots blackish; under side with a brown discoidal spot (which is largest in the fore wings), and with a broad submarginal band composed of brown speckles. Fore wings slightly rounded at the tips; exterior border rounded very oblique. Hind wings with the exterior border scalloped. Length of the body 6 lines; of the wings 19 lines.

72. ACIDALIA LATIFERA. *Em.* Alba; capite palpis thoracisque tegulis anticis cinereis; palpis oblique ascendentes verticem non superantibus, articulo 3 lineari 2^o dimidio brevioribus; abdomine rufescente cinereo basi et segmentorum marginibus posticis albis; alis vitta rufescente cinerea antice abbreviata lineam albam undulatam includente, vitta submarginali rufescente determinata lineam albam angulosam includente, punctis marginalibus nigris.

Emol. White, stout. Head, palpi, and fore tegule of the thorax cinereous. Palpi obliquely ascending, not rising higher than the vertex; 3rd joint linear, less than half the length of the 2nd. Abdomen reddish cinereous; base and hind borders of the segments white. Legs smooth, slender. Wings with a reddish cinereous stripe, which extends from the middle of the interior border of the hind wings, and is abbreviated near the fore exterior border of the fore wings, and includes on its hind side a white undulating line; a submarginal stripe of the same hue, but less determinate, including a white zigzag line; marginal points black, under side pale cinereous. Length of the body 3 lines; of the fore wings 9 lines.

GEN. NERESSA.

M. Corp. subrotundum. Probosc. brevis. Palpi erecti.

sat vahlî, verticem non superantes; articulus 3^o conicus. Antennæ crebre setosæ. Abdomen alas posticas non superans; sexualia magna. Pedes graciles, longiusculi; tibiæ posticæ dilatatæ; tarsi postici brevissimi. Alæ anticæ latæ, acutæ, margine exteriorè vix convexo.

Med. Body rather stout. Proboscis short. Palpi erect, rather stout, not rising higher than the vertex; 3rd joint conical, not more than one-sixth of the length of the 2nd. Antennæ thickly setose. Abdomen not extending beyond the hind wings; tip with lateral valves, and with a large tuft. Legs slender, rather long; hind tibiæ dilated; hind tarsi very short. Wings broad. Fore wings acute; exterior border very slightly rounded, moderately oblique.

73. *NEBESSA CHALYBEATA.* *Mos.* Pallidissime coryvina; capite, palpis, antennis thoraceque antice nigricantibus; thorace albo; alis fascia antemedialia lata obliqua lineisque duabus exterioribus angulosis albido marginatis linea, submarginali pallidiorè diffusa indistincta, puncto discoidali nigro; alis anticis fascia apud medium dilatata chalybeo suffusa, linea 1^a exteriorè posticè nigra.

Med. Very pale fawn colour, testaceous whitish beneath. Head, palpi, antennæ, and fore border of the thorax blackish. Thorax white. Wings with a broad antemedial oblique fawn coloured band, which has darker borders; two exterior zig zag fawn coloured lines, each of which is bordered with whitish on the outer side; a paler indistinct diffuse submarginal line; marginal fission brown; a black point in the disk. Fore wings with the band much dilated in the middle on the outer side, partly overspread with chalybeous; hind part of the 1st exterior line black. Length of the body 7½ lines; of the wings 19 lines.

74. *SCODIONA CEPHALOTES.* *Mos.* Cinn. fusco conspersa; palpis perfectis subrostriformibus caput sat superantibus, articulo 3^o acuto, milibus; thorace margine antice testaceo; tibiis posticis subdilatatis; alis fasciis duabus fuscis undulatis, fasciis duabus exterioribus pallidioribus angulosis, fimbria alba, subtus flavis nigrofusca bifida; tarsi; alis anticis fascia intermedia fusca undulata, tarsi antici duobus intermediis nigris.

Mo. Hoary, speckled with brown. Body whitish beneath. Palpi perfect, subrostriform, extending somewhat beyond the head; 3rd joint acute, very minute. Antennae minutely setulose. Thorax with a testaceous fore border. Abdomen rather shorter than the interior border of the hind wings; apical tuft small. Legs smooth, slender; hind tibiae slightly dilated. Wings with two undulating brown bands, and with two exterior paler brown zig-zag bands; fringe white; under side yellow, with an antemedial band and a broad marginal band, both blackish brown. Fore wings with an intermediate undulating brown band; under side with two black bands between the antemedial band and the marginal band, with which latter they are connected at the hind end. Length of the body 6 lines; of the fore wings 16 lines. See Plate VII, Fig. 14.

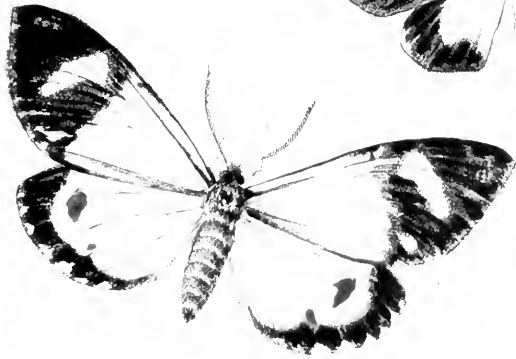
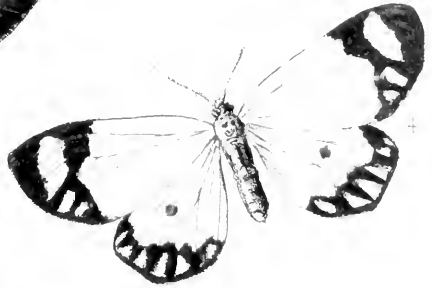
75. MICRONIA TENELLA. *Ms.* Alba; capite anticio nigricante, antennis fulvis robustis; alis testaceo pallido transverse strigatis; alis posticis margine exteriore rectangularato.

Mo. White, slender. Front of the head blackish. Antennae tawny, stout, smooth. Abdomen shorter than the interior border of the hind wings. Legs short, smooth, rather stout. Wings transversely and indistinctly streaked with pale testaceous. Fore wings acute; costa and exterior border slightly rounded, the latter slightly oblique. Hind wings with the exterior border rectangular in the middle. Length of the body 4 lines; of the wings 14 lines.

76. SUBRITA LEUCOSA. *Ms.* Obscure cinerea, subtus albida; palpis erectis verticem longe superantibus articulo 3 lanceolato; abdomine alas posticas longe superante; alis anticis albo subconspersis apice rotundatis, lineis quatuor nigricantibus transversis undulatis 3^a valde armata albo marginata 4^a subangulosa, punctis marginalibus nigris.

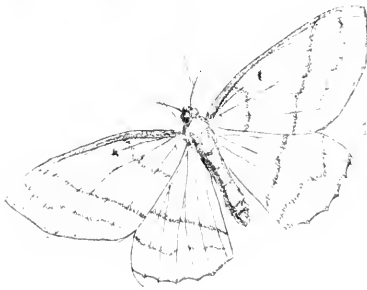
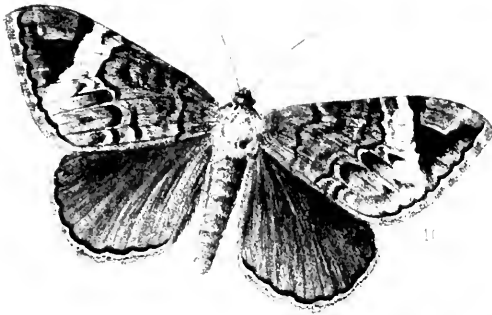
Mo. Dark cinereous. Body whitish beneath. Palpi erect, rather slender, rising much higher than the vertex; 3rd joint lanceolate, a little shorter than the 2nd. Antennae smooth, rather stout. Abdomen cinereous, extending much beyond the hind wings; apical tuft small. Legs whitish, smooth. Fore wings rounded at the tips, with some white speckles, and with four

blackish undulating transverse lines; 1st line very near the base; 2nd antemedial, accompanied by a white line; 3rd postmedial, much curved outward, slightly bordered with white on the outer side; 4th slightly zig-zag; marginal points black; exterior border rounded, not oblique; under side whitish along the interior border. Hind wings whitish along the costa. Length of the body 3 lines; of the wings 8 lines.



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3. H. P. (1941) No. 9 N. S. (1941) No. 10 H. P. (1941) No. 11





10 *TOLNA VERPOTLOK*. 12 *TRAMA STRAMMATA*
11 *OPHILEPE DIVITIOSA*. 13 *TIMANA COSTALIS*
14 *LOGOTHNA CEPHALOTES*.

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