Characters of some undescribed Heterocerous Lepidoptera. By Francis Walker, Esq., F.L.S.

[Read June 7, 1866.]

All the following species were discovered at Bogota, and are in the collection of E. Birchall, Esq., who has kindly allowed me to describe them.

The descriptions are preceded by a list of the species, and by a few remarks on some of the families and genera in which the species are included.

Tribe NOCTUITES.

Fam. HEMICERIDÆ.

Gen. HEMICERAS, Guen.

H. subochraceum.

Fam. HOMOPTERIDÆ.

Gen. Homoptera, Boisd.

H. fimbripes.

H. paupera.

Fam. CATEPHIDÆ.

Gen. VESPOLA, n.

V. cæruleifera.

Fam. PHYLLODIDÆ.

Gen. TETRISIA, n.

T. florigera.

Fam. EREBIDÆ.

Gen. BRUJAS, Guen.

B. bigutta.

Gen. LETIS, Hübn.

L. securivitta.

Gen. SYRNIA, Hübn.

S. albifimbria.

Fam. OMMATOPHORIDÆ.

Gen. ALLIA, n.

A. ocellata.

Gen. ERYMELLA, n.

E. hieroglyphica.

Fam. OPHIUSIDÆ.

Gen. VARIA, n.

V. rubiginea.

Fam. POAPHILIDÆ.

Gen. PHURYS, Guen.

P. teligera.

Gen. BATIA, n.

B. squamicosta.

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Fam. THERMESIADÆ.

Gen. THERMESIA, Hübn.

T. bipustulata.

Gen. MANDELA, n.

M. crocea.

Tribe DELTOIDITES.

Fam. HYPENIDÆ.

Gen. HYPENA, Schr.

H. megaspila.

Gen. LAMETIA, Walk.

L. retusa.

Fam. HERMINIDÆ.

Gen. CASPERIA, n.

C. erebipennis.

Tribe GEOMETRITES.

Fam. URAPTERYDÆ.

Gen. CHÆRODES, Guen.

C. bogotaria.

Gen. CLYSIA, Guen.

C. discolor.

Fam. ENNOMIDÆ.

Gen. AZELINA, Guen.

A. saturata.

Fam. ŒNOCHROMIDÆ.

Gen. Norsia, n.

N. vincta.

Fam. BOARMIDÆ.

Gen. BOARMIA, Treit.

B. demissaria.

Fam. ACIDALIDÆ.

Gen. ACIDALIA, Treit.

A. fulvicosta.

Fam. MICRONIDÆ.

Gen. MICRONIA, Guen.

M. metargyria. Fam. FIDONIDÆ. Gen. Issa, n. I. munda. Fam. EMPLOCIDÆ. Gen. Tora, n. T. unilinea.

Fam. HEMICERIDÆ.

Hemiceras, the typical genus of this family, is wholly American, and extends from Canada to Brazil. The species here described has much affinity to H. metastigma; but the latter has white hind wings.

Fam. HOMOPTERIDÆ.

The genus *Homoptera* is mostly American, and the species are very numerous. The two species here described are much smaller than most of the others in the genus.

Fam. CATEPHIDÆ.

Some of the genera included in this family are very different from each other in structure. The new genus Vespola has most affinity to Stictoptera and to Lophoptera, but may be distinguished by the slender and very long palpi.

Fam. PHYLLODIDÆ.

Tetrisia has a remarkable resemblance to the Asiatic genus Phyllodes, from which it may chiefly be distinguished by the great length of the 3rd joint of the palpi.

Fam. EREBIDÆ.

The Erebidæ exceed in size all the other Noctuites; and the South-American species are larger and much more numerous than those of Asia. The Bombycites and the Geometrites have the greatest development in South Asia; and the Tineites of Australia and of New Zealand, including the Cossidæ and the Hepialidæ far surpass all others in dimensions.

The sameness of colouring in the wings of Brujas bigutta, and the white dot near the interior angle of the fore wings, distinguish it from B. basicineta, B. Rengus, and B. posterior. Letis securifera has most resemblance to L. occidua, from which it is chiefly distinguished by the testaceous patch on the interior angle of the fore wings, and by the fewer markings on the hind wings.

The white fringe of the wings and the more angular hind wings distinguish Syrnia albifimbria from S. Iphianassa.

Fam. OMMATOPHORIDÆ.

This family is especially Asiatic; and the two new genera here characterized recede much from the typical structure. The very long 3rd joint of the palpi is the chief distinctive character of Allia. Erymella hardly belongs to the Ommatophoridæ.

Fam. OPHIUSIDÆ.

The woolly covering of the pectus, of the base of the abdomen beneath, and of the legs distinguishes *Varia*. It may be considered an aberrant form of the Ophiusidæ.

Fam. POAPHILIDÆ.

Phurys teligera differs very much from all the other species of the genus; it is most like P. basilaris, but there is no longitudinal streak near the base of the fore wing.

The curved palpi and the structure of the fore wings distinguish Batia from Poaphila and from Phurys.

Fam. THERMESIDÆ.

Thermesia bipustulata is nearly allied to T. prospera; but the wings are without the postmedial white line which characterizes the latter species.

Mandela has most affinity to Ephyrodes; but the wings are festooned, and the exterior border of the hind wings is not angular.

Fam. HYPENIDÆ.

Hypena megaspila is most allied to H. pilosalis; but the latter has no concise silvery line along the patch of the fore wings.

The more porrect tips of the fore wings distinguish Lametia retusa from L. ignitalis. Plusiodonta anaitoides (Cat. Lep. Het. xxxiii. 843) may be transferred to this genus.

Fam. HERMINIDÆ.

In this family Casperia belongs to a distinct group, of which Mesopia is the only other representative. Mastygophora and Palthis are the types of two neighbouring groups.

Fam. URAPTERYDÆ.

The genus *Chærodes* extends from Nova Scotia to Rio Janeiro. *Clysia* is a South-American genus; and *C. discolor* has a general

resemblance to C. pardipennaria, but there are no black spots on the wings.

Fam. ENNOMIDÆ.

The section of Azelina here described includes A. variaria and A. honestaria.

Fam. ŒNOCHROMIDÆ.

Norsia has some affinity to Auxima; and these two genera hardly belong to the Œnochromidæ, for they are very different in structure from the Australian groups of that family.

Fam. BOARMIDÆ.

Boarmia demissaria is described in the Catalogue of Lepidoptera Heterocera, xxi. 357; but the specimen there mentioned was injured, and the description is consequently incomplete.

Fam. ACIDALIDÆ.

The genus Acidalia is exceedingly numerous in species, and inhabits all parts of the world. A. fulvicosta is very distinct from all the other South-American species.

Fam. MICRONIDÆ.

The genus *Micronia* extends from West Africa through Hindostan, Ceylon, and China to Australasia and Australia; it has no known representative in South Africa. *M. metargyria* is the only American species yet known, and is most allied to the West-African *M. erycinaria*; it has also some affinity to *Meleaba the-claria*, the type of a neighbouring South-American genus.

Fam. FIDONIDÆ.

The structure of the palpi and of the antennæ will distinguish the genus Issa from Pachydia, to which it has some resemblance.

Fam. EMPLOCIDÆ.

Tora, the new genus here described, is quite different from Emplocia in the structure of the wings.

Hemiceras subochraceum. Mas. Rufescenti-cervinum, capite bifasciculato, palpis erectis articulo 3° minimo, antennis dimidio basali subpectinatis; alis anticis lineis duabus nigricantibus angulosis valde indeterminatis, linea exterioree punctis nigris cinereo marginatis; alis posticis flavescenti-cinereis, fascia marginali lata rufescenti-cervina.

Male. Reddish fawn-colour, yellowish cinereous beneath. Head with a small erect tuft on each side between the antennæ. Palpi stout, pubescent, erect, not rising higher than the vertex; 3rd joint extremely small. Antennæ slightly pectinated to nearly the middle. Abdomen slightly tufted above near the base, extending somewhat beyond the hind wings; apical tuft compressed, very small. Legs stout; femora and tibiæ pilose. Fore wings with two zigzag very indistinct blackish lines and with an exterior more oblique line of black cinereous-bordered points. Hind wings yellowish cinereous, with a broad reddish fawn-coloured marginal band. Length of the body 11 lines; of the wings 24 lines.

Homoptera fimbripes. Mas. Fusca, fasciculo frontali acuto; palpis suberectis verticem longe superantibus, articulo 3º lanceolato; tarsis late fimbriatis; alis fascia nigra undulata e lineis tribus approximatis, lineis duabus exterioribus nigricantibus angulosis indistinctis; alis anticis fascia antemedia e lineis tribus approximatis.

Male. Brown, cinereous beneath. Frontal tuft prominent, acute. Palpi nearly erect, rising much higher than the vertex; 3rd joint lanceolate, cinereous at the base and at the tip, rather shorter than the 2nd. Antennæ setose. Thorax squamous. Abdomen extending much beyond the hind wings; apical tuft small. Tibiæ broadly fringed. Wings with a middle undulating black band, which is composed of three approximate lines; two exterior indistinct zigzag blackish lines; marginal points black. Fore wings with a band near the base like the one before mentioned. Length of the body 7 lines; of the wings 16 lines.

Homoptera paupera. Fam. Fusca; palpis erectis verticem longe superantibus, articulo 3º lanceolato; alis spatio marginali obscuriore, fascia median igricante angulosa; alis anticis fascia antemedia angulosa.

Female. Brown, cinereous beneath. Palpi erect, rising much higher than the vertex; 3rd joint lanceolate, much more slender than the 2nd, and little more than half its length. Wings with a middle zigzag blackish band; space along the exterior border darker than the ground-hue; marginal points black. Fore wings slightly acute, with a blackish band near the base; exterior border slightly rounded, hardly oblique. Length of the body 5 lines; of the wings 13 lines.

Gen. VESPOLA.

Mas. Corpus sat validum. Palpi graciles, oblique ascendentes, verticem sat superantes; articulus 2^{us} subarcuatus; 3^{us} rectus, linearis, 2° paullo brevior. Abdomen alas posticas dimidio

superans; fasciculus apicalis parvus. *Pedes* robusti, squamosi; calcaria longa, gracilia. *Alæ* anticæ elongatæ, acutæ, margine exteriore perobliquo.

Male. Body moderately stout. Palpi slender, obliquely ascending, rising rather higher than the vertex, much longer than the breadth of the head; 2nd joint slightly curved; 3rd straight, linear, a little shorter but hardly more slender than the 2nd. Abdomen extending for half its length beyond the hind wings; apical tuft small. Legs stout, squamous; spurs long, slender. Wings elongate, moderately broad. Fore wings acute; exterior border slightly convex, very oblique.

Vespola cæruleifera. Mas. Cupreo-ferruginea, abdomine plagis duabus lateralibus cyanescenti-argenteis plagaque basali ventrali alba; alis anticis pallidiore subvariis, linea angulosa postmedia atomisque argenteis, subtus cyaneo plagiatis; alis posticis disco cyaneo.

Male. Cupreous-ferruginous. Abdomen with a large bluish silvery patch on each side, and with a large white patch at the base beneath. Joints of the tarsi with white tips. Fore wings slightly mottled with a somewhat paler hue, irregularly adorned with silvery speckles and with a postmedial zigzag line of the same hue; underside with patches of bright blue scales. Hind wings bright blue in the disk, this hue more prevalent on the underside. Length of the body 8 lines; of the wings 17 lines.

Gen. Tetrisia.

Fæm. Corpus robustum. Frons conicus. Proboscis brevis. Palpi validi, pubescentes, oblique ascendentes, verticem longissime superantes; articulus 3^{us} subclavatus, subfimbriatus, 2º paullo longior. Antennæ sat graciles. Abdomen alas posticas paullo superans, basi subtus dense pilosum. Pedes robusti; femora pilosa; calcaria longa. Alæ amplæ; anticæ, acutæ, costa perparum convexa, margine exteriore perobliquo.

Female. Body stout. Front prominent, conical. Proboscis short. Palpi stout, pubescent, obliquely ascending, rising very much higher than the vertex; 3rd joint subclavate, slightly fringed above, a little longer than the 2nd. Antennæ rather slender. Abdomen tapering from the base to the tip, densely pilose near the base, extending a little beyond the hind wings. Legs stout; femora pilose; spurs long. Wings long, broad. Fore wings acute; costa very slightly convex; exterior border slightly convex, very oblique; 2nd inferior vein as near to the 3rd as to the 1st; 4th remote from the 3rd.

Tetrisia florigera. Fæm. Obscure fusca; alis anticis lunula media nigra, fascia exteriore obliqua e maculis nigricantibus, macula subtus alba maxima; alis posticis nigris, macula maxima rosea.

Female. Dark brown. Body a little paler beneath. Fore wings with a black lunule at the end of the areolet, and with an oblique band of irregular blackish spots at half the length between the lunule and the exterior border; underside with a very large white spot near the interior angle. Hind wings black; a very large rosy spot near the interior angle, equally apparent on the underside. Length of the body 18 lines; of the wings 45 lines.

Brujas bigutta. Mas. Fusca; alis fascia marginali subpallidiore, lineis tribus angulosis lunulisque submarginalibus nigricantibus, his albo marginatis; alis anticis macula postica alba, orbiculari nigricante cinereo marginata, reniformi cinereo marginata lituras duas nigricantes includente.

Male. Brown, cinereous brown beneath. Palpi erect, rising very much higher than the vertex; 2nd joint with a very short fringe in front; 3rd linear, cinereous at the tip, more slender than the 3rd, but nearly as long. Antennæ setose. Abdomen a little shorter than the interior border of the hind wings; apical tuft compressed, very small. Wings with a slightly paler marginal band; three blackish zigzag lines, of which the 2nd in the fore wings is nearer the outer side of the reniform mark; submarginal lunules blackish, white-bordered on the outer side: underside with a postmedial black zigzag line and with a diffuse blackish submarginal band, which contains a slightly undulating einereous line; submarginal lunules cinereous-bordered. Fore wings with a white spot near the interior angle; orbicular and reniform marks cinereous-bordered, the former blackish, the latter containing a small blackish mark on each side: underside with two black dots, which represent the orbicular and reniform marks. Hind wings beneath with a black fusiform mark in the areolet. Length of the body 11 lines; of the wings 27 lines.

Letis securivita. Fæm. Cinereo-fusca, thorace fascia postica pallide ochracea; alis anticis vitta strigam latissimam emittente plagaque postica magna pallide ochraceis connexis, orbiculari et reniformi magnis nigricantibus albido marginatis, linea submarginali e strigis nigris, striga subapicali obliqua pallide ochracea; alis posticis fascia cervina lineas duas nigricantes denticulatas albo marginatas includente, linea exteriore subundulata pallide ochracea.

Female. Brown, cinereous-tinged. Palpi erect, rising very much higher than the vertex; 2nd joint with a short thick fringe in front; 3rd linear, slender, rather shorter and very much more slender than the 2nd. Antennæ minutely setulose. Thorax with a pale ochraceous band on its hind border. Wings beneath with three pale ochraceous lines in the middle and with a black point in the disk nearer the base. Fore

wings with a pale ochraceous stripe, which joins the band of the thorax and emits an extremely broad streak to the costa, and is connected with a large pale ochraceous patch, which joins the interior angle; this stripe is traversed by two oblique zigzag pale ochraceous black-bordered lines, of which the 2nd is white near the interior border; orbicular and reniform marks large, blackish, whitish-bordered; a black submarginal line composed of connected fusiform streaks; three white costal points near the tip, and an oblique undulating pale ochraceous subapical streak. Hind wings with an irregular fawn-coloured middle band, which contains two blackish denticulated partly white-bordered lines, and is bordered on its outer side by an undulating black line; a slightly undulating pale ochraceous line near the submarginal line, which is like that of the fore wings. Length of the body 16 lines; of the wings 58 lines.

Syrnia albifimbria. Fæm. Obscure fusca; alis lineis tribus nigricantibus angulosis cinereo marginatis, linea exteriore nigra dentata ochraceo marginata, linea adhuc exteriore alba indeterminata, fimbria alba basi nigra; alis anticis macula orbiculari et reniformi magnis ochraceo pallido marginatis; alis posticis margine exteriore dentato uniangulato.

Female. Dark brown, pale brown beneath, minutely whitish-speckled. Palpi erect, rising much higher than the vertex; 2nd joint slightly curved, applied to the head, with a short thick dull ochraceous fringe in front; 3rd linear, cinereous at the tip, rather shorter and very much more slender than the 2nd. Antennæ minutely pubescent. Abdomen with a blue tinge, much shorter than the interior border of the hind wings. Tips of the tibiæ and of the joints of the tarsi dull ochraceous. Wings with three blackish zigzag partly cinereous-bordered lines, and with an exterior more distinct black dentate ochraceous-bordered line, beyond which there are traces of a white line; submarginal line black, festooned; fringe white, black at the base: underside with a black antemedial cinereous-bordered spot in the disk, with a postmedial dark-brown slightly undulating partly whitish-bordered line, and with traces of an exterior white line. Fore wings acute; orbicular and reniform marks large, of the ground-hue, bordered with pale ochraceous: exterior border straight. Hind wings with the exterior border dentate, angular in the middle. Length of the body 15 lines; of the wings 42 lines.

Gen. ALLIA.

Mas. Corpus robustum, læve. Proboscis mediocris. Palpi erecti, verticem superantes; articulus 3^{us} linearis, 2º paullo longior. Antennæ setulosæ. Abdomen alas posticas non superans; fasciculus apicalis minimus, subcompressus. Pedes robusti; femora dense pilosa; calcaria longa. Alæ breves, latæ, margine exteriore subobliquo, anticæ subacutæ.

Male. Body stout, smooth. Proboscis moderately long. Palpi smooth, erect, twice as long as the breadth of the head, rising very much higher than the vertex; 3rd joint linear, a little longer and much more slender than the 2nd. Antennæ setulose. Abdomen not extending beyond the hind wings; apical tuft very small, slightly compressed. Legs stout; femora densely pilose; spurs long. Wings short, broad; exterior border convex, slightly oblique; an additional vein in each space between the veins that extend to the exterior border. Fore wings slightly acute.

Allia ocellata. Mas. Ferrugineo-fusca; alis anticis lineis duabus angulosis obscure fuscis, macula reniformi longa angusta fusco marginata, ocello postico nigro punctum album includente ochraceo fuscoque marginato, plaga exteriore chalybea; alis posticis plagis duabus chalybeis, linea submarginali obscure fusca cinereo marginata.

Male. Ferruginous brown, cinereous brown beneath. Wings with two dark-brown lines which are zigzag in the fore wings and undulating in the hind wings. Fore wings with a long narrow dark-brown-bordered reniform mark, which is between the lines, as is also a black ocellus on the interior border; this ocellus has a white point in its centre and an orange border, which latter is bordered with dark brown; a chalybeous patch on the outer side of the ocellus; two dark-brown lines near the base, the 2nd undulating; an abbreviated brown line near the exterior border, very diffuse on its inner side. Hind wings with two chalybeous patches, one between the lines, the other between the 2nd line and a dark-brown cinereous-bordered submarginal line, which is intercepted and forms two black dots where it joins the patch. Wings beneath with a dark-brown point in the disk, with a postmedial denticulated dark-brown line and with black marginal points. Length of the body 9 lines; of the wings 24 lines.

Gen. ERYMELLA.

Mas. Corpus robustum, læve. Proboscis mediocris. Palpi validi, squamosi, oblique ascendentes, verticem longe superantes; articulus 3^{us} linearis, 2º valde brevior. Antennæ pubescentes. Thorax tegulis posticis longis truncatis. Abdomen alas posticas paullo superans; fasciculus apicalis minimus. Pedes robusti; femora fimbriata; calcaria longa, gracilia. Alæ elongatæ, sat angustæ, anticæ acutæ; margine exteriore perobliquo.

Male. Body stout, smooth. Proboscis of the usual length. Palpi stout, squamous, obliquely ascending, rising much higher than the vertex; 3rd joint linear, much shorter than the 2nd. Antennæ minutely pubescent. Hind tegulæ of the thorax long,

truncate at the tips. Abdomen extending a little beyond the hind wings; apical tuft very small. Legs stout; femora fringed; spurs long, slender. Wings elongate, rather narrow. Fore wings acute; exterior border convex, very oblique.

ERYMELLA HIEROGLYPHICA. Mas. Cinereo-fusca, capite thoraceque fuscis; alis linea e punctis albis elongatis, punctis marginalibus nigris; alis anticis spatio basali fusco, linea antemedia obscure fusca, guttis tribus mediis nigris, plaga exteriore magna nigricante.

Male. Cinereous brown. Head and thorax brown. Abdomen and underside brownish cinereous. Wings with a line of elongated white points on the veins, abbreviated on the outer side of the reniform mark in the fore wings; marginal points black. Fore wings with a brown basal space which is limited by a darker brown line; three black dots in the disk, the 2nd on a diffuse dark brown line, the 3rd capitate; a large exterior blackish patch joining the costa. Length of the body 7 lines; of the wings 19 lines.

Gen. VARIA.

Mas. Corpus crassum. Proboscis mediocris. Palpi breves, erecti, verticem longe superantes; articulus 3^{us} linearis, 2º dimidio longior. Antennæ setosæ. Abdomen alas posticas sat superans; fasciculus apicalis parvus. Pedes validi, fimbriati; calcaria longissima. Alæ latæ; anticæ acutæ, subfalcatæ.

Male. Body very stout Proboscis of the usual length. Palpi smooth, erect, rising much higher than the vertex; 3rd joint linear, much more slender than the 2nd, and rather more than half its length. Antennæ setose. Abdomen extending rather beyond the hind wing; apical tuft small. Legs stout; femora and tibiæ fringed; spurs very long. Wings broad. Fore wings acute, subfalcate; exterior border convex, moderately oblique; 3rd inferior vein very near the 2nd, 4th very remote. Hind wings with an oblique interior border; interior angle prominent.

Varia rubiginea. Mas. Ferrugineo-rufa; alis anticis subglaucescentibus, lineis duabus obscurioribus obliquis undulatis, 2ª punctis albis ornata, linea exteriore e punctis fuscis cinereo marginatis; alis anticis macula orbiculari et reniformi maximis, orbiculari cinerea punctum fuscum includente, reniformi cinereo varia, linea antemedia fusca angulosa indistincta.

Male. Ferruginous red, cinereous beneath except the fringe of the wings. Fore tibiæ with white tips; tips of the tarsal joints white; spurs with white bands. Wings slightly glaucous-tinged, with two darker oblique

undulating lines—one antemedial, the other postmedial (accompanied by white points); an exterior line of brown cinereous-bordered points. Fore wings with a cinereous mark between the 2nd and 3rd lines; orbicular and reniform marks very large; orbicular round, cinereous, with a brown point in the middle; reniform partly cinereous; an indistinct zigzag brown line near the base; underside with a blackish lunule in the disk. Length of the body 11 lines; of the wings 26 lines.

Phurys teligera. Eæm. Cervina; alis anticis vitta postica cinerea nigro conspersa strigaque fusca lata cinereo marginata; alis posticis fuscescenti-cinereis.

Female. Fawn-colour. Palpi smooth, slender, nearly erect, rising a little higher than the vertex; 3rd joint lanceolate, a little more than half the length of the 2nd. Hind tegulæ of the thorax very long. Abdomen not extending beyond the hind wings. Wings with a brown marginal festoon. Fore wings with a cinereous black-speckled stripe along the interior border and with a broad brown cinereous-bordered streak, which rests on the stripe and extends to the tip. Hind wings brownish cinereous. Length of the body 8 lines; of the wings 20 lines.

Gen. BATIA.

Mas. Corpus robustum læve. Proboscis mediocris. Palpi graciles, squamosi, arcuati, ascendentes, verticem non superantes; articulus 3^{us} lanceolatus, 2° valde brevior. Antennæ graciles, pubescentes. Thorax squamosus. Abdomen alas posticas non superans; fasciculus apicalis parvus. Pedes læves, sat graciles; calcaria longa, gracilia. Alæ latæ; anticæ acutæ, fasciculo subcostali munitæ, margine exteriore perparum obliquo.

Male. Body stout, smooth. Proboscis of the usual length. Palpi slender, squamous, curved, ascending, not rising higher than the vertex; 3rd joint lanceolate, much shorter than the 2nd. Antennæ slender, minutely pubescent. Thorax squamous. Abdomen not extending beyond the hind wings; apical tuft small. Legs smooth, rather slender; spurs long, slender. Wings broad. Fore wings acute; exterior border convex, very slightly oblique; a costal tuft beyond the middle above, and a subcostal tuft before the middle on the underside.

Batia squamicosta. Mas. Ferrugineo-rufa, abdomine alisque posticis nigricanti-cinereis; alis anticis nigricante subconspersis lineis duabus cinereis, la recta, 2a apud costam reflexa.

Male. Ferruginous red. Abdomen, hind wings, and underside blackish einercous. Fore wings very minutely blackish-speckled; two cinere-

ous lines; first line antemedial, straight; second postmedial, oblique, much reflexed near the costa and joining the tuft. Length of the body 6 lines; of the wings 17 lines.

Thermesia bipustulata. Fæm. Ferrugineo-rufa; palpis erectis, verticem longe superantibus, articulo 3º lineari 2º breviore; alis lineis tribus nigricantibus undulatis indistinctis, 3ª punctis albis comitata; alis anticis plaga costali subapicali ochracea albo marginata macula orbiculari et reniformi parvis nigricantibus, linea 1ª punctis albis comitata.

Female. Ferruginous red, cinereous beneath. Palpi erect, slender, rising much higher than the vertex; third joint linear, rather shorter and more slender than the second. Abdomen not extending beyond the hind wings. Legs smooth, rather slender. Wings with three indistinct blackish undulating lines; third line postmedial, accompanied by white points. Fore wings acute, with a costal subapical ochraceous white-bordered patch; orbicular and reniform marks small, blackish, between the first and second lines; first line accompanied by white points; exterior border convex, moderately oblique. Length of the body 8 lines; of the wings 17 lines.

Gen. MANDELA.

Mas. Corpus sat robustum. Proboscis mediocris. Palpi sat graciles, oblique ascendentes, verticem paullo superantes; articulus 2^{us} squamosus; 3^{us} 2º brevior, obtusus, apicem versus subincrassatus. Antennæ setulosæ. Abdomen alas posticas perpaullo superans; fasciculus apicalis compressus, minimus. Pedes læves, graciles; calcaria longa, gracilia. Alæ elongatæ, margine exteriore subdentato; alæ anticæ vix falcatæ; alæ posticæ margine exteriore sat obliquo.

Male. Body moderately stout. Proboscis of the usual length. Palpi obliquely ascending, rather slender, much longer than the breadth of the head, rising a little higher than the vertex; second joint squamous: third rather shorter than the second, slightly increasing in breadth from the base to the tip, which is obtuse. Antennæ minutely setulose. Abdomen extending very little beyond the hind wings; apical tuft compressed, very small. Legs smooth, slender; spurs long, slender. Wings elongate; exterior border festooned. Fore wings very slightly falcate; exterior border slightly convex, moderately oblique; first, second and third inferior veins approximate at the base; 4th very remote. Hind wings with the exterior border receding much from the abdomen.

MANDELA CROCEA. Mas. Læte lutea; capite, palpis thoraceque antico

cinereo-purpureis; abdomine fasciis quatuor purpurascenti-cinereis, ventre pedibusque albidis; alis anticis vitta costali purpurea nigricante conspersa, punctis duobus nigris, lineis tribus angulosis apud costam nigris et retractis punctoque basali læte rufis, fascia marginali rufa guttas canas includente.

Male. Bright luteous, paler beneath. Head, palpi and fore part of the thorax cinereous-purple. Abdomen with some bright-red speekles on each side of the base of the second segment, and with a purplishcinereous band on the fore border of each of the last four segments; underside and legs whitish. Fore wings with a purple blackish-speckled costal stripe, and with a broad irregular red marginal band, which includes a line of hoary dots; a bright-red point at the base and three bright-red zigzag lines, which are retracted and black near the costa; a black point between the first line and the second, and another between the second line and the third; five white costal points near the tip; marginal lunules black; fringe blackish cinereous, white-bordered: underside red, with four irregular black lines and a postmedial black patch. Hind wings with an irregular antemedial red band which contains an irregular white blackish-bordered line; an exterior blackish line and three more exterior lines composed of red points, some of the points in the second line marked with blackish; marginal line red, with a blackish festoon; fringe paler than that of the fore wings: underside with three blackish denticulated lines, of which the third is interrupted. Length of the body 5 lines; of the wings 14 lines.

HYPENA MEGASPILA. Fæm. Obscure fusca; alis anticis cervinis, purpurascenti-cinereo tinctis, plaga trigona maxima obscure fusca albido marginata, linea exteriore fusca lineaque adhuc exteriore e lituris parvis fuscis.

Female. Dark brown, slender. Frontal tuft porrect, acute, very prominent. Abdomen and underside dark cinereous. Legs slender. Fore wings acute, fawn-colour, suffused with purplish cinereous; a very large dark-brown whitish-bordered triangular patch, which occupies the whole costa except at the base and at the tip, and extends nearly to the interior border; a brown line nearly parallel to the outer side of the patch, and an irregular more exterior line of small brown marks; exterior border slightly convex, rather oblique. Length of the body 5 lines; of the wings 14 lines.

Lametia retusa. Fæm. Ferrugineo-rufa; palpis oblique ascendentibus, verticem longe superantibus; abdomine subtus pallide luteo; alis anticis chalybeo suffusis, apice retusis, fascia marginali lata aurata; alis posticis luteis, fascia marginali lata nigricante.

Female. Ferruginous red. Frontal tuft prominent. Palpi obliquely ascending, rising much higher than the vertex. Abdomen extending

rather beyond the hind wings, pale luteous beneath. Fore wings chalybeous-tinged with the exception of a broad dark gilded marginal band; fringe red; tips retuse. Hind wings bright luteous, with a broad blackish band which blends with the ferruginous hue along the exterior border. Length of the body $9\frac{1}{2}$ lines; of the wings 22 lines.

Gen. CASPERIA.

Mas. Corpus robustum. Proboscis mediocris. Palpi supra thoracem reflexi; articulus 2^{us} fimbriatus; 3^{us} fasciculatus, 2^o vix brevior. Antennæ setosæ. Abdomen alas posticas non superans; fasciculus apicalis compressus, minimus. Pedes antici usque ad tarsorum apices densissime fasciculati. Alæ anticæ amplæ, acutæ, fimbria costali brevi reflexa, margine exteriore vix obliquo; posticæ margine exteriore subangulato.

Male. Body stout. Proboscis moderately long. Palpi reflexed over the head and the thorax, and extending nearly to the hind border of the latter; second joint with a short thick fringe; third nearly as long as the second, clothed from the base to the tip with a long thick clavate tuft of hairs. Antennæ setose. Pectus clothed with long hairs. Abdomen not extending beyond the hind wings; apical tuft compressed, very small. Legs stout; spurs long. Fore legs clothed nearly to the tips of the tarsi with a very thick mass of hairs. Posterior femora and hind tibiæ fringed. Wings long, broad; intermediate veins distinct towards the exterior border. Fore wings acute; a short reflexed costal fringe along one-fourth of the length from the base; exterior border slightly rounded, hardly oblique. Hind wings with the exterior border slightly angular near the interior angle.

Casperia erebipennis. Mas. Obscure fusca, palpis pedibusque anticis cervino pilosis; alis fascia postmedia cervina indistincta lineam nigram dentatam includente, linea exteriore cervina pallidiore angulosa, lunulis marginalibus nigris ochraceo marginatis; alis anticis guttis duabus ochraceis, linea antemedia nigra dentata.

Male. Dark brown, cinereous brown beneath. Palpi and fore legs clothed with fawn-coloured hairs. Wings with an indistinct fawn-coloured postmedial band which includes a dentate black line; an exterior paler fawn-coloured zigzag line; marginal lunules black, bordered with ochraceous. Fore wings with a black dentate line at a little beyond one-third of the length from the base; an ochraceous subcostal dot nearer the base; another ochraceous dot in the areolet. Length of the body 12 lines; of the wings 34 lines.

CHÆRODES BOGOTARIA. Mas. Cinereo-ferruginea; alis fusco conspersis, fusco pallido subnebulosis, linea obliqua lineaque exteriore lata angulosa obscure fuscis; alis anticis falcatis, linea 1^a subarcuata, linea antemedia obscure fusca, strigula media argentea; alis posticis linea 1^a angulosa, margine angulato.

Male. Cinereous ferruginous, more cinereous beneath. Palpi obliquely ascending, not rising so high as the vertex; third joint lanceolate, not more than one-half of the length of the second. Antennæ slender. Abdomen shorter than the interior border of the hind wings. Wings minutely and transversely brown-speckled, slightly clouded with pale brown; a dark-brown line which is zigzag in the hind wings and slightly curved inwards in the fore wings, and extends from the middle of the interior border of the hind wings to near the tips of the fore wings, where it is acutely retracted to the costa; a broad exterior dark-brown zigzag line, which is abbreviated in the fore part of the fore wings: underside with an irregular brown marginal band. Fore wings very falcate; a dark-brown oblique line near the base; a little transverse undulating silvery streak at the end of the areolet. Hind wings with the exterior border angular in the middle. Length of the body 8 lines; of the wings 28 lines.

CLYSIA DISCOLOR. Fam. Subochracea; alis fusco et nigricante strigatis, fasciis duabus indeterminatis flavescenti-cinereis maculis albidis comitatis, linea submarginali nigricante lata angulosa cinereo varia, margine exteriore angulato; alis anticis falcatis, plaga antemedia flavescenti-cinerea; alis posticis marginis exterioris angulo magis determinato.

Female. Dull ochraceous, einereous beneath. Palpi obliquely ascending, not rising so high as the vertex. Abdomen much shorter than the interior border of the hind wings. Wings minutely and transversely streaked with brown and with blackish; two incomplete and irregular yellowish-cinereous bands, each of which is accompanied by a few whitish spots, one of the latter represents the reniform mark and contains a black point; submarginal line broad, blackish, zigzag, varied with cinereous, exterior border forming an angle: underside with an irregular whitish marginal band. Fore wings falcate, with a yellowish cinereous patch near the base. Hind wings with the angle of the exterior border much more prominent and acute than that of the fore wings, and with two more distinct anterior teeth. Length of the body 10 lines; of the wings 28 lines.

Gen. AZELINA.

Sectio nova.

Fæm. Corpus crassum. Proboscis robusta, sat longa. Palpi robusti, porrecti, caput perpaullo superantes; articulus 2^{us} brevissime fimbriatus, 3^{us} minimus. Antennæ graciles. Abdomen

lineare, fasciculis quatuor parvis lateralibus. *Pedes* robusti; calcaria brevissima. *Alæ* amplæ, margine exteriore dentato.

Female. Body thick. Proboscis stout, moderately long. Palpi stout, porrect, extending very little beyond the head; second joint with a very short fringe; third extremely small. Antennæ slender. Abdomen linear, hardly as long as the interior border of the hind wings, with two small tufts on each side near the tip. Legs stout, smooth; spurs very short. Wings long, broad; exterior border irregularly dentate. Fore wings acute; exterior border slightly rounded, rather oblique.

AZELINA SATURATA. Fæm. Fusca; alis anticis striga alba angulata, linea antemedia nigricante angulosa apud costam atra et dilatata, lineis duabus postmediis nigricantibus subundulatis fere contiguis, 2^a antice atra postice diffusa, linea exteriore dentata strigaque adhuc exteriore lanceolata nigro marginata chalybeis, punctis quinque albis submarginalibus; alis posticis linea postmedia fusca albido marginata, guttis quatuor marginalibus atris.

Female. Brown, cinereous-brown beneath. Fore wings with a white angular streak on the disk; an antemedial blackish zigzag line, which forms an angle towards the streak, whence to the costa it is deep black and dilated and retracted; two blackish postmedial oblique slightly undulating nearly connected lines; second line deep black along the fore part, diffuse along the hind part, where it is bordered on the outer side by an acutely dentate chalybeous line, the latter is connected with a lanceolate darker chalybeous broadly black-bordered streak; two exterior incomplete brown lines; five white submarginal points; a black point behind the fifth white point; underside with small pale testaceous costal marks. Hind wings with a black point in the disk and with an exterior brown whitish-bordered line; four deep-black dots along the hind part of the exterior border, successively increasing in size towards the interior angle. Length of the body 8 lines; of the wings 24 lines.

Gen. Norsia.

Mas. Corpus sat gracile. Proboscis mediocris. Palpi validi, verticem paullo superantes; articulus 2^{us} fimbriatus, oblique ascendens; 3^{us} lanceolatus, porrectus, 2ⁱ dimidio brevior. Antennæ crenulatæ. Abdomen alas posticas longe superans; fasciculus apicalis parvus. Pedes validi; tibiæ fimbriatæ; calcaria sat longa. Alæ anticæ latæ, longissimæ, vix falcatæ, margine exteriore perobliquo, margine interiore undulato.

Male. Body rather slender. Proboscis of the usual length. Palpi stout, rising a little higher than the vertex; second

joint obliquely ascending, with a short thick fringe in front; third lanceolate, porrect, about one-third of the length of the second, with which it forms an obtuse angle. Antennæ minutely crenulated. Abdomen extending much beyond the hind wings; apical tuft small. Legs stout; tibiæ with a long fringe; spurs moderately long. Wings broad, very long. Fore wings acute, hardly falcate; exterior border convex, very oblique; interior border undulating, dilated near the base, excavated beyond the middle; second inferior vein about thrice as far from the third as from the first.

NORSIA VINCTA. Mas. Pallide rufescens, alis anticis lineis pallide cinereis fusco marginatis, 2^a abbreviata, 3^a, 4^a, 6^a, 8^a et 9^a brevissimis, 5^a antemedia, 10^a submarginali, alis posticis cervinis fimbria pallide cinerea.

Male. Pale reddish, pale reddish-cinereous beneath. Fore wings with various oblique pale cinereous brown-bordered transverse lines. First line very near the base; second abbreviated; third and fourth very short, near the costa; fifth slightly antemedial; sixth very short; seventh more oblique than the others; eighth and ninth very short, near the interior angle; tenth near the exterior border. Hind wings fawn-colour; fringe pale cinereous. Length of the body 15 lines; of the wings 36 lines.

Boarmia demissaria. Mas. Albida, palpis nigricantibus, tibiis posticis subincrassatis; alis fusco conspersis, lineis tribus e punctis nigricantibus, fascia atomosa fusca, puncto medio punctisque marginalibus nigris.

Male. Whitish. Palpi blackish, obliquely ascending, not rising higher than the vertex; third joint extremely small. Antennæ broadly pectinated. Abdomen not extending beyond the hind wings; apical tuft very small. Hind tibiæ slightly incrassated. Wings brown-speckled, with three oblique lines of blackish points; first line antemedial; second postmedial, accompanied by a very incomplete brown band, which is composed of clustering speckles; third submarginal; a blackish point in the disk between the first line and the second; marginal points black; underside with a dark-brown marginal band. Length of the body 7 lines; of the wings 22 lines.

ACIDALIA FULVICOSTA. Fæm. Argenteo-alba, capite antico fusco; antennis validis, pubescentibus; alis subhyalinis, cinereo conspersis; alis anticis puncto nigro, costa fulva.

Female. Silvery white. Head brown, excepting the vertex. Palpi brown. Antennæ stout, very minutely pubescent. Abdomen rather shorter than the interior border of the hind wings. Legs smooth, slender. Wings slightly hyaline, thinly and very minutely speckled LINN. PROC.—ZOOLOGY, VOL. IX.

with cinereous. Fore wings acute, with a black point in the disk; costa tawny. Length of the body 5 lines; of the wings 15 lines.

MICRONIA METARGYRIA. Fαm. Nivea, alis lineis duabus pallide fuscescenti-cinereis, alis anticis lineis quinque; alis posticis subcaudatis, linea 2^a dilatata argenteo marginata, plaga ochracea, maculis duabus atris.

Female. Pure white. Abdomen much shorter than the interior border of the hind wings. Wings with two pale brownish-cinereous lines; first line not oblique, extending from a little beyond one-fourth of the length of the costa of the fore wings, abbreviated at some distance from the exterior border of the hind wings; second at a little beyond three-fourths of the length in the fore wings, very near the border in the hind wings. Fore wings with three additional lines, the first near the base, the second at a little beyond the middle; the third marginal. Hind wings subcaudate; second line dilated, including a little silvery streak, bordered by a silvery line, interrupted by an ochraceous patch; this is connected with two deep-black spots, of which the largest is on the subcaudate angle. Length of the body 6 lines; of the wings 21 lines.

Gen. Issa.

Mas. Corpus sat validum. Proboscis brevis. Palpi graciles, ad frontem applicati, verticem non attingentes; articulus 3^{us} minimus. Antennæ serratæ, setosæ. Abdomen alas posticas non superans; fasciculus apicalis parvus, subcompressus; fasciculi duo parvi, ventrales, subapicales. Tibiæ densissime fimbriatæ. Alæ latæ, margine exteriore vix dentatæ. Alæ anticæ vix acutæ, margine exteriore subobliquo. Alæ posticæ margine interiore obliquo.

Male. Body moderately stout. Proboscis short. Palpi slender, applied to the head, not rising so high as the vertex; third joint extremely small. Antennæ minutely serrated, densely setose. Abdomen rather shorter than the interior border of the hind wings; apical tuft small; slightly compressed; a tuft on each side beneath near the tip. Legs with very densely fringed tibiæ. Wings broad; exterior border very slightly festooned. Fore wings hardly acute; exterior border slightly oblique, very slightly rounded. Hind wings with the interior border receding much from the abdomen.

ISSA MUNDA. Mas. Pallide flavescenti-cinerea, capite palpisque fuscis; alis fusco pallido subconspersis, lineis duabus angulosis pallide cervinis, linea marginali fusca, punctis marginalibus nigris; alis anticis puncto nigro, alis posticis macula nigra.

Male. Pale yellowish cinereous. Head and palpi brown. Wings very minutely speckled with pale brown; two pale fawn-coloured zigzag lines; first line antemedial, with some brown points in the fore wings, indistinct in the hind wings; second postmedial; an exterior slightly undulating line of black points; marginal festoon brown, accompanied by black points; underside with a black lunule, with two exterior dentate black lines and with a black marginal festoon, the first line indistinct. Fore wings with a black point between the first and second lines. Hind wings with a black spot between the first line and the second. Length of the body 7 lines; of the wings 20 lines.

Gen. TORA.

Mas. Corpus gracile. Proboscis brevis. Palpi porrecti, graciles, brevissimi; articulus 3^{us} minimus. Antennæ subpubescentes, sat validæ. Abdomen breve; fasciculus apicalis minimus. Pedes breves, graciles. Alæ amplæ. Alæ anticæ acutæ, margine exteriore perobliquo. Alæ posticæ margine exteriore subtruncato, margine interiore obliquo.

Male. Body slender. Proboscis short. Palpi porrect, slender, very short; third joint very small. Antennæ rather stout, very minutely pubescent. Abdomen much shorter than the interior border of the hind wings; apical tuft very small. Legs smooth, slender. Wings broad, elongate. Fore wings acute; exterior border slightly convex, very oblique. Hind wings with the exterior border somewhat truncated; interior border receding much from the abdomen.

Tora unilinea. Mas. Ochracea; alis anticis apice fuscis, fascia postmedia alba obliqua; alis posticis subtus fuscis, albo trivittatis.

Male. Ochraceous. Fore wings brown about the tips, with a narrow white band, which extends from five-sixths of the length of the costa to the middle of the exterior border. Hind wings brown and adorned with three white stripes on the underside; first stripe costal, extending along the exterior border to the end of the second; second a little in front of the middle of the breadth; third abbreviated, very near the interior border. Length of the body $4\frac{1}{2}$ lines; of the wings 16 lines.



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