XII. *Descriptions of new Genera and Species of Heterocerous Lepidoptera from Japan.** By ARTHUR G. BUTLER, F.L.S., F.Z.S., &c.

[Read May 4th, 1881.]

NOCTUITES.

CYMATOPHORIDÆ.

44. *Gonophora aurorina*, n. s.

ALLIED to *G. scripta* of North America, from which it differs in its smaller size, darker coloration, the distinct pink gloss on the upper surface of the primaries, the more contracted basal area of these wings, due to the inangulation of the inner white border of the central belt; the anal area is occupied by a large grey rounded spot, shading into rust-red along its inner border, which is bounded by a curved white stripe (the outer limit of the central belt); above this spot are the ordinary black, crinkled, discal lines, which are four in number, parallel as usual, wider apart, much less deeply and less acutely zigzag or undated than in *G. scripta*, and terminate at the first median branch instead of running through the central belt to inner margin; the abbreviated gravel-brown lines on the opposite side of the central belt are also wholly wanting in the Japanese species, but the costal border above the usual discoidal spot is much more obscured by transverse dusky stripes; the fringe of all the wings is golden brown tipped with white; the secondaries are shining fuliginous-brown, with the external third dusky; below the wings are similar in pattern to *G. scripta*, but the ground colour is shining greyish brown instead of sordid creamy whitish; expanse of wings, 1 inch 5 lines.

Yokohama (*H. Pryer*).

* Continued from p. 23, *ante*.

45. *Thyatira pryeri*, n. s.

Closely allied to *T. pudens* of North America, but with the brown patch towards the base of costal area considerably more cuneiform, and the streak connecting it with the disc of the wing far more oblique; the inferior margin of the large white basal patch regularly biundated; the large white costal patch beyond it more sharply defined, not interrupted, carried backwards in a conical shape so as to completely obliterate the orbicular spot, its inferior margin curving down and almost obliterating the reniform spot; apical white patch less sharply defined, less excised in front; the anal patch, the diffused patch in front of it upon the inner margin, and the fringe bright rust-red, instead of ochraceous; the fringe spotted with brown; secondaries darker, more pinky in tint, the fringe rust-red tipped with whitish; tegulæ whitish-brown instead of white; expanse of wings, 1 inch 11 lines.

Yokohama (*H. Pryer*).

As *Gonophora scripta* of Gosse and *Thyatira pudens* of Guénée are well-known species, I have not hesitated to give comparative descriptions of these two Japanese forms.

46. *Leptina grata*, n. s.

Primaries above pale olivaceous, with broad subcostal and interno-median pink streaks extending from the base almost to the middle; discoidal spots large, the so-called "orbicular" oblique and almost triangular, with yellowish olivaceous centre; the reniform pinky, and enclosing a B-shaped olivaceous marking; sub-basal line very slender and inconspicuous, dark brown, zigzag; two oblique olive-brown dashes at base of costa before the commencement of the subbasal line; a brown irregular costal patch above and between the discoidal spots, beyond which and above the reniform spot the costal border is pinky white, spotted with olivaceous; discal line slender, arched, dentated, dark brown; inner margin purplish brown, excepting at the base, crossed in the centre by a very oblique (almost longitudinal) black-edged white line, and near the external angle by a transverse black-edged bisinuated white line; an arched diffused tapering brown streak from the costa just beyond the dentated discal line, and a submarginal purplish

brown stripe followed by an externally black-edged white marginal line; fringe whitish brown, spotted with greenish grey lunules; secondaries shining grey with brassy reflections; a spot at the end of the cell, an arched discal line, and a rather broad external border darker grey; a marginal series of lunate white spots; fringe creamy whitish; thorax olivaceous; head and collar brownish, the latter with white posterior border; abdomen grey, with the posterior margins of the segments whitish, and with blackish dorsal tufts; under surface shining whitish brown, the wings suffused and irrorated with pale grey over the costal half; primaries with an indistinct dusky spot just before the middle of the costal margin, and another closing the cell; an angular blackish character bounding a white costal spot beyond the cell; costal area beyond this spot slightly rosy; secondaries with a blackish spot at the end of the cell, followed by an irregular discal arched series; apical area slightly rosy; anterior legs above dark brown, banded with whitish; expanse of wings, 1 inch 5 lines.

Токей (*Fenton*).

LEUCANIIDÆ.

47. *Mythimna limbata*, n. s.

Nearly allied to *M. turca* of Europe, but the primaries paler, of a more clay-coloured tint, especially on the basal and external areas, which are less striated with darker lines than in *M. turca*; secondaries paler, greyer, with a broad external creamy buff-coloured diffused border along the external margin; wings below with the reddish suffusion less intense towards the costal margins, and not extending to the base; expanse of wings, 2 inches.

Токей (*Fenton*).

48. *Nonagria innocens*, n. s.

Aspect and general coloration of *N. helmanni*, but more nearly allied to *N. fulva*; primaries above pale shining sandy brown, with a slightly darker streak immediately below the cell, and a second along the inner margin from the base to the external fourth; reniform spot indicated by two or three white dots on the disco-cellulars; a slender blackish marginal line; fringe

and secondaries sericeous creamy white; thorax sandy brownish; abdomen paler sandy brown, sericeous; primaries below whitish towards the inner margin, without markings; secondaries with the costal border slightly sordid; body below sandy brownish; expanse of wings, 1 inch 3 lines.

Yokohama (*H. Pryer*).

GLOTTULIDÆ.

49. *Glottula sordida*, n. s.

Primaries dark bronzy brown, crossed by two ill-defined black lines, the first at just before the basal third, widely sinuated, the second at about external third angulated and dentate-sinuate; the costal border to the commencement of the second line marked with four black spots, beyond this line with alternate black and cream-coloured spots; fringe pale brown, traversed by a black line and tipped with black; secondaries shining greyish brown, with a very slender darker marginal line; fringe whitish, traversed by a smoky brown line, and tipped with the same colour; thorax reddish brown; abdomen greyish brown; under surface shining greyish brown, with bronzy reflections; fringe grey; primaries with an oblique blackish costal dash beyond the cell; secondaries with the reflections rather redder than in the primaries, a dusky spot at the end of the cell; expanse of wings, 1 inch 6 lines.

Yokohama (*H. Pryer*).

The primaries of this species are rather squarer than in the typical form, more like *G. atronitens* of Australia; but the neurulation and other points of structure agree.

XYLOPHASIIDÆ.

50. *Xylophasia commixta*, n. s.

Nearest to *X. sodalis*; general aspect of *Agrotis ustulata*; primaries above dark purplish grey, with all the markings as in *X. rurea*, excepting the two triangular blackish patches on the external border, which are wanting; the base, costal border between the black spots, discoidal area from the orbicular stigma to the denticulate discal line, the discoidal spots, and the outer border of a discal series of unequal black hastate spots, sienna-red (varied

with creamy buff at base and within the cell, where this colour edges the discoidal spots); secondaries shining pale brownish, with broad greyish brown external border; fringe with a slender basal yellowish line, a broad central dark brown stripe, and white tips; thorax dark grey; vertex of head and tips of palpi whitish; collar occupied in front by two large semicircular dull rose-red patches, and edged behind with pale grey; abdomen sericeous-grey, blackish towards the anus; anal fringe above tipped with testaceous; under surface pale bronzy brown; wings with a spot at the end of the cell, and a rather broad discal band, crossed by pale nervures, blackish brown, not very pronounced, but limited internally by a slender arched blackish line; a marginal series of black lunules; anterior tarsi black, banded with buff; expanse of wings, 1 inch 6 lines.

Male, Tokei (*Fenton*); female, Yokohama (*Jonas*).

The female I formerly believed to be a well-marked variety of *X. sodalis*, notwithstanding the very dissimilar character of the under surface.

Var. (analogous to *combusta* type of *X. rurea*): wings above sericeous pale laky brown, with the two usual dentated blackish lines and a purplish brown zigzag stripe between them; a widely bisinuated dusky-bordered pale line limiting the external border, which is greyish; orbicular spot oblique; two white dots immediately above it upon the subcostal vein; reniform spot varied with snow-white and black; several ill-defined zigzag lines upon the basal area; secondaries and under surface considerably paler than in the typical form; expanse of wings, 1 inch $8\frac{1}{2}$ lines.

Tokei (*Fenton*).

Now that we possess both sexes of this species, as well as the usual variety, it is impossible to regard it as other than a well-defined distinct species.

51. *Xylomyges bella*, n. s.

General aspect and coloration of *X. conspicularis* and *Apamea ophiogramma*; rather larger, with broader primaries; the basal third of the primaries, a broad internal border, and an oblique submarginal abbreviated band limiting the broad pale apical costal patch, white, flecked here and there with pale testaceous and grey; the apical

costal patch is continued backwards, chiefly owing to the colour of the orbicular spot, which is large, oblique, and testaceous, enclosing an oblique 8-shaped brown character; the undulated white discal lines (which are ill-defined in *X. conspicillaris*) are sharply defined, the inner, black-edged line being also nearer to the outer line and abruptly terminating half-way across the interno-median interspace, where it meets a curved longitudinal black stripe bounding the margin of the internal white border, and running to the outer edge of the white basal area; marginal spots lunate, black, bordered internally with snow-white; fringe as usual; the secondaries differ in having a rather broad diffused brownish external border; the veins are sordid (not black), tipped with black and crossed by a discal series of black dots; the body differs in the browner colouring of the back of the collar, behind the black line; on the under surface the principal difference is in the browner and more uniform coloration of the primaries, and the less conspicuous discal series of black dots on the secondaries; expanse of wings, 1 inch 9 lines.

Yokohama (*H. Pryer*).

This species is sufficiently nearly allied to the European one to render a comparative description preferable to any other.

APAMEIDÆ.

52. *Thalpophila digna*, n. s.

Allied to *T. cytherea* of Europe, from which it differs as follows:—Primaries silvery grey, sericeous with black markings, the interno-median area blotched with black to the base; the subbasal black-edged whitish line obsolete, and the second line with no inner white border; the orbicular spot small, circular and sharply defined by a black edge, the "reniform" ill-defined, clouded with black, and confounded with the black costal dashes; discal line forming one slightly concave line from the subcostal vein to the third median branch, and thence trisinate (the central sinus crossing the first median and interno-median interspaces) to inner margin, its inner (and not its outer) border being snow-white; sub-marginal whitish line squamose, less irregular, formed entirely of pure white scales; marginal black line replaced by black dots; secondaries sordid white,

testaceous towards the base and abdominal border; external border browner and abruptly angulated at the third median branch; fringe narrow, white, with grey central line; thorax grey, with the collar, and edges of the tegulæ blackish; primaries below pale greyish brown with brassy reflections; a pale angulated stripe across the disc; secondaries white with sordid borders; two costal spots, a disco-cellular spot, and an abbreviated external border, dusky; a blackish spot at anal angle; body below greyish brown; expanse of wings, 1 inch 9 lines.

Yokohama (*H. Pryer*).

53. *Apamea nivalis*, n. s.

Primaries above snow-white, sericeous; markings as in *A. gemina*, excepting that they are of a paler cupreous-brown colour, and that the markings are absent from the interno-basal area; costal border cupreous-brown, crossed by numerous white-edged black dashes; secondaries shining creamy white, like tarnished silver; body above silvery white, the abdomen becoming slightly greyish towards the anal extremity; under surface shining creamy white; expanse of wings, 1 inch 2 lines.

Токей (*Fenton*).

This pretty little species seems to be most nearly allied to *A. demissa* of Canada, with which it agrees in general pattern, the most prominent markings on the primaries being the large subquadrate patch crossing the outer half of the cell, and the bimaculated slightly dusky outer border; in size it agrees better with *A. modica* (= *Celæna subcedens*) of Trenton Falls; its natural position would probably be between these two forms.

54. *Perigea* ? *argyrosticta*, n. s.

Allied to *P. hylea* of S. America; primaries above red-brown, with bright cupreous reflections; basal area varied with bright orange; an abbreviated elbowed whitish line across the centre of the basal area; the area between the subbasal line and the inner line of the central belt occupied on the costal border by a large unequally quadrate yellowish spot; ordinary lines very irregular, divergent above the first median branch, pink, with blackish edges; orbicular spot small, reddish orange

with black margin; reniform unusually large, metallic-silver, enclosing a brownish C-shaped ochreous marking; a second (but small and oblique) metallic-silver spot crosses the interno-median interspace close to the inner line of the central belt upon the basal area; disc slightly clouded with rose-colour; external border limited internally by an irregularly zigzag whitish line; secondaries cupreous-brown, sericeous; thorax testaceous, the front of head, tegulæ, and posterior margin of metathorax reddish; abdomen pale shining grey-brown, with whitish posterior margins to the segments; under surface shining creamy whitish, the primaries slightly dusky in the centre, and with the costal border washed with reddish orange, but indistinctly; expanse of wings, 1 inch.

Токеи (*Fenton*).

NOCTUIDÆ.

55. *Agrotis tokionis*, n. s.

Allied to *A. saucia*, with the same broad primaries, but in the general colour and pattern of these wings it more nearly resembles *A. suffusa*; primaries sandy brown; the discoidal cell, including the ordinary spots, slaty grey; orbicular spot diamond-shaped, imperfectly defined by a black margin; reniform angulated, with a black margin, which is wide below the angulation, but narrow above it; submedian spot fusiform, slaty grey, with black margin; the ordinary double zigzag lines all ill-defined; costal border dark brown, interrupted by the subbasal line, the inner line of the central belt, and a transverse dash above the reniform spot; outer border irregularly dark brown, limited internally by a series of lunate spots slightly paler than the ground-colour; a marginal series of black dots; fringe testaceous, with dusky outer edge; secondaries bronzy brown, sericeous, with a rather broad darker external border; a blackish marginal line; fringe as in primaries; thorax sandy brown, slightly tinted with pink; collar crossed in the centre by a bisinuated black line, behind which it is grey; tegulæ sparsely speckled with black scales; abdomen whity brown; primaries below fuliginous-brown, sericeous, with testaceous fringe; secondaries sericeous whity brown, with the costal border towards apex and the external border fuliginous-brown, diffused; fringe

slightly yellower than the ground colour of the wings ; body below fuliginous-brown, the spines of the hind tibiae varied with testaceous ; expanse of wings, 1 inch 11 lines.

Tokei (*Fenton*).

A rubbed specimen of this species was also obtained at Yokohama by Mr. Jonas, and was confounded with specimens of *A. ingrata*.

56. *Agrotis fucosa*, n. s.

Nearly allied to *A. segetum* ; primaries with the same colour and pattern, excepting that they are slightly shot with lilacine, and that the outer or discal dentate-sinuate line is extremely indistinct ; size, form, and coloration of secondaries as in *A. saucia* ; expanse of wings, 2 inches.

Tokei (*Fenton*).

57. *Spælotis lucens*, n. s.

Closely allied to *S. senna* of Europe, from which it differs in its greater size, distinctly broader primaries, in the greater size of the reniform spot, and paler tegulæ ; expanse of wings, 1 inch 8 lines.

Tokei (*Fenton*).

58. *Opigena arenosa*, n. s.

Pale sandy yellowish brown ; primaries with the same pattern as in *A. polygona* of Europe, excepting that the discoidal spots are black with black-edged whitish margins ; secondaries rather greyer than the primaries, with pale sandy yellowish fringe ; wings below whitish, the primaries with dusky diffused discoidal area ; two indistinct darker parallel discal lines and an indistinct darker disco-cellular lunule ; a marginal series of black dots ; secondaries very slightly pearly, excepting towards the costa, where they are sparsely sprinkled with blackish scales ; two parallel externo-discal grey lines ; a disco-cellular blackish lunule ; a series of scarcely distinguishable linear blackish marginal dots ; body pale sandy brown ; expanse of wings, 1 inch 7 lines.

Tokei (*Fenton*).

A shattered specimen in the collection has the under surface of the wings much darker and browner than in the type; the genus *Hermonassa* will have to be united to *Opigena*.

59. *Ochropleura plumbata*, n. s.

Allied to *O. stupens*; primaries above with the sub-basal area and disc shining leaden grey; the base, central area, and external border washed with chocolate-brown; two black spots in the form of a semicolon, and limited externally by a whitish 3-shaped line close to the base; a black dot near the base of the cell, the interno-median interspace, between the 3-shaped marking and the inner line of the central area, blackish; inner line whitish, black-edged, acutely angulated on the costal border and close to the inner margin, and widely arched in the centre; discoidal cell between this line and the reniform spot, black, but interrupted by the orbicular spot; both discoidal spots chocolate-brown, with whitish centres and edges; the reniform spot limited externally by a dotted 3-shaped black line; an irregular blackish spot touching the median vein below the orbicular spot; outer line of the central area indicated by two slender parallel dentate-sinuate blackish lines, between which and the externo-discal line (which limits the external border) the veins are alternately black and white; the line just mentioned is ill-defined, but bounded internally by an irregular series of unequal hastate black spots; a marginal series of blackish lunules; fringe testaceous, with a pale basal line; secondaries greyish brown, with slight bronzy reflections; the veins and a straight belt from apex to anal angle grey; external border, between the extremities of the belt, sandy brown; fringe sandy whitish, intersected by a grey line; thorax laky brown; head greyish; a white line across the collar; dorsal tufts four in number, whity brown; abdomen grey, with yellowish anal extremity; under surface of wings grey, with bronzy reflections; external borders pale sandy brown; a well-defined blackish stripe just beyond the middle, straight on the primaries, arched on the secondaries; pectus greyish, reddish in front; venter pale sandy brown; expanse of wings, 1 inch 10 lines.

Tokei (*Fenton*); Yokohama (*H. Pryer*).

This species has somewhat the facies of *Semiophora gothica*, but the antennæ of the male are simple.

ORTHOSIIDÆ.

60. *Cerastis lævis*, n. s.

Primaries above dark silky chocolate-brown, varied by velvety brown lines and spots, the whole of the dentate-sinuate lines across these wings arranged as in *C. erythrocephala* of Europe, those which bound the central area on each side being formed of rather more widely separated parallel double lines; external border shining dark ash-grey almost to apex, and with a pale internal limiting line; its apical portion testaceous; costal border crossed by numerous parallel oblique velvety brown dashes; marked beyond the middle by four equidistant white dots; orbicular spot outlined in brown, below it and touching the median vein and the inner limit of the central area is a rather large velvety-brown spot; reniform spot duplicated, the inner spot being merely outlined in brown, the outer one almost lunate in form, and straw-yellow; nervures on the disc dotted with black; fringe greyish, with central and basal undulated brownish paler lines; secondaries whity brown, sericeous, greyish in certain lights; costal border whitish, silvery at base; a diffused greyish external border; fringe traversed by two grey lines, and tipped with silvery white; thorax chocolate-brown; abdomen whity brown; wings below pale shining pinky brown, crossed by an irregular grey discal line and irrorated with grey towards the costal margins; primaries with the central area broadly greyish, the internal border whitish, with brassy reflections; body below pinky brown; expanse of wings, 1 inch 9 lines.

Токеи (*Fenton*).

61. *Cerastis subdolens*, n. s.

Nearly allied to *C. erythrocephala*, but larger, less sericeous, varying in the colour of the primaries and thorax from laky brown to pale sandy flesh-tint, whereas the European species varies from shining chocolate-brown and grey to reddish clay-coloured; the reniform spot larger and paler, sometimes almost entirely yellowish white; there is also invariably a small submedian black

dot below the orbicular spot ; the secondaries are slightly darker along the external border, and have a decidedly narrower fringe ; on the under surface the external pale border is diffused and decidedly wider at apex, the dark discal line is indistinct, and the costal border is noticeably redder ; the secondaries are considerably whiter, with redder costal border ; the discal line is placed much farther from the outer margin, and the spot at the end of the cell is much smaller ; the body below is darker and redder ; expanse of wings, 1 inch $7\frac{1}{2}$ to 9 lines.

Tokei (*Fenton*).

This does not appear to be a rare species.

62. *Mesogona exigua*, n. s.

Coloration of primaries nearly as in *M. acetosellæ* ; sandy testaceous, faintly washed with pink, and slightly sericeous ; the two lines of the central belt dusky, the inner line oblique, with pale internal border, the outer line transverse from inner margin to upper radial, whence it runs obliquely at an obtuse angle inwards to costa, with pale external border ; between these two lines is a somewhat diffused dusky angular stripe, the angle of which runs into the lower part of the reniform spot ; both discoidal spots ill-defined, but rather paler than the ground colour ; external border greyish, limited internally by a rather pale bracket-shaped line ; a marginal series of black dots ; fringe dark grey with pink reflections, and with a bright clay-coloured basal line ; secondaries greyish brown, sericeous, with bronzy reflections ; external border rather broadly grey, but this border is concealed in certain lights by the bright reflections ; costal border whitish, shining, with brassy reflections ; fringe ochreous, traversed by a grey line ; thorax clay-coloured washed with pink ; abdomen shining grey, with testaceous anal tuft ; under surface whitish ; wings shining, slightly ochraceous along the costal and apical borders, irrorated with grey, and crossed by a dark grey discal line ; primaries with the whole central area grey ; legs and venter slightly tinted with pink ; expanse of wings, 1 inch 3 lines.

Tokei (*Fenton*).

HADENIDÆ.

63. *Lamprosticta bella*, n. s.

Primaries above chalky greenish white, irregularly spotted and streaked with black, brown and grey, so as to give it somewhat the aspect of *Dianthæcia conspersa* and *Diphthera deridens*; the form of the wings, however, agrees with *Lamprosticta*; basal third white, with three black costal spots, the third of which is the commencement of the inner edge of the central belt; a black spot near the base of the cell, connected with the second costal spot by a curved brown dash; a curved subbasal black marking just below the cell; a reniform black-edged spot placed obliquely below the latter, and united externally to a whitish-centred brown spot; base of inner border brown; central third best described as black, crossed obliquely by a broad and irregularly notched greenish white band, which includes the orbicular spot, a black linear dot in the latter, and a second on the costa above it, a bluish black and very slender linear dot below it; reniform spot transverse, quadrate; the interval between the orbicular and reniform spots occupied by a black-edged brown spot; costa from the reniform spot to apex alternately white and black; a triangular black costal spot just beyond the central belt, below which is a transverse discal streak of purplish grey and brown, interrupted on the interno-median interspace, and partly edged externally by an uneven curved black line, which runs to the external angle; two very irregular submarginal black spots, one crossing the radial interspaces and the other divided by the first median branch; fringe spotted with brown and traversed by a slightly darker line; secondaries shining dark bronzy brown; fringe snow-white, traversed, excepting towards the anal angle, by a brown line; thorax creamy white; the palpi (excepting the last joint), eyes, antennæ, two longitudinal dashes on the head, back of collar, and borders of tegulæ, black; abdomen dark greyish brown, pale towards the base; primaries below cupreous-brown, with dark greyish brown costal border, spotted beyond the cell with white; fringe alternately black and white, traversed near the base by a dark brown line; secondaries with greyish brown costal area, otherwise whitish with bronzy reflections; a distinct obtusely angulated discal

stripe and an indistinct submarginal stripe brown ; fringe as above ; body below dark smoky grey, the legs black, banded with white ; anterior tibiæ with white lateral fringe ; expanse of wings, 1 inch 3 lines.

Токеи (*Fenton*).

64. *Miselia cinerea*, n. s.

Primaries above grey, rather dark, with the black lines, edges of discoidal spots, and oblique costal dashes as in *M. bimaculosa* of Europe ; the discoidal spots very large and slightly tinted with brown ; the outer line of the central belt rather broadly bordered with snow-white upon the interno-median interspace ; this portion of the wing clouded throughout with blackish ; basal third of inner border whitish ; a diffused whitish nebulous streak from near the apex to the commencement of the white border of the exterior line ; external border limited internally by an indistinct brown-edged whitish dentate-sinuate line ; a sinuated black marginal line ; fringe dark grey, traversed by a darker stripe ; secondaries greyish white, with a darker diffused external border and discal line ; fringe with a pale basal line ; thorax dark grey speckled with black, a black line across the head ; abdomen rather paler than the thorax ; under surface greyish white ; wings sericeous ; the markings of the upper surface indistinctly visible in certain lights, owing to the partial transparency of the wing ; pectus sordid white ; expanse of wings, 1 inch 11 lines.

Yokohama (*H. Pryer*).

65. *Plataplecta plumbea*, n. s.

Primaries above shining leaden grey, slightly brassy towards the internal border, and rosy brownish on the external border ; costal area and veins irrorated with white scales ; a basi-costal irregular black spot followed by an interrupted irregular blackish stripe ; the dentated black lines bounding the central area and the external border similar to those of *Aplecta herbida* ; discoidal spots small, white, with black margins ; a discal series of white spots on the nervures ; a marginal series of depressed white-edged black spots ; fringe brown, spotted with white ; secondaries greyish brown, with bronzy reflections ; a nearly marginal slender whitish sinuated

line ; fringe white, spotted with brown ; thorax greyish white ; tegulae transversely banded with blackish ; abdomen shining grey, with faint brownish reflections ; wings below with the basal area broadly whitish brown, shining with faint golden reflections ; primaries with the external three-fifths, excepting part of the costal border, an elongated spot beyond the cell, a spot at external angle, and a streak on the interno-median interspace, greyish, with faint golden reflections ; an interrupted marginal blackish line ; fringe dark grey, spotted with white ; secondaries with the external third, excepting towards anal angle, greyish brown, with faint golden reflections, limited internally by an irregularly dentate-sinuate dark grey line ; a small blackish spot at the end of the cell, and above it a greyish squamose spot ; body below sordid white ; legs banded with grey ; expanse of wings, 1 inch 10 lines.

Tokei (*Fenton*).

66. *Aplectoides caliginea*, n. s.

Primaries above shining slaty grey, crossed by brownish bordered velvety black lines, similar to those of *A. nitida* ; external border pale brown, with a submarginal series of black spots across it ; orbicular and reniform spots as in *A. nitida* ; a similar pale patch immediately beyond the reniform spot, but brownish, as in the dark variety of that species ; costal margin at apex and fringe pale rust-red, the latter spotted below the middle with grey ; secondaries paler, and with more golden reflections than in *A. nitida*, otherwise similar ; thorax grey, barred with black ; abdomen pale brown, with dorsal black spots at the base ; anal segment dark grey, with a basal black band ; under surface greyer than in *A. nitida*, but otherwise similar ; expanse of wings, 1 inch 7—8 lines.

Tokei (*Fenton*).

This species is wonderfully similar to the scarce melanistic form of the much larger *A. nitida* (Ill. Typ. Lep. Het. 3, pl. xlv. fig. 1) ; it is, however, clearly a perfectly distinct species.

67. *Hadena tokiensis*, n. s.

Primaries above slaty grey, with the base, orbicular spot, the reniform spot excepting its posterior angle, and a very irregular waved and sinuated submarginal stripe limiting the external border, pale sap-green; two or three black dots at the base; central belt greenish, with black dentate-sinuate marginal lines, and enclosing a large spot somewhat similar in form to the white spot of *H. lucia* (Ill. Typ. Lep. Het. 3, pl. xlv. fig. 2), but lilacine slate-colour instead of pure white; orbicular spot small, rounded, with black pupil and margin; reniform angular, enclosing a curved olivaceous line, and with black margin; external border with large internal and small marginal black spots, the latter bordered with whitish; fringe grey, spotted with white; secondaries silvery white, irrorated with grey scales; a discal line and a diffused submarginal belt grey; thorax greenish yellow, varied with brown bars; abdomen whitish, banded with grey; under surface sordid whitish; wings shining; primaries with the central area greyish; secondaries with a black spot at the end of the cell; a dentate-sinuate grey discal line, and an ill-defined submarginal greyish streak; anterior tarsi black, spotted with white; expanse of wings, 1 inch 9 lines.

Токеи (*Fenton*).

HELIOTHIDÆ.

68. *Heliothis fervens*, n. s.

Primaries above dull dark ferruginous-red, washed with lake, excepting at the base of the inner margin; spotted with black at the base, and with a broad belt of blackish scales just before the middle; a slightly sinuous submarginal chocolate-brown stripe; fringe cream-coloured; secondaries dark purplish brown, almost black, with a central small white spot; fringe tipped with white; thorax ferruginous; abdomen blackish brown, with narrow pale yellow hind margins to the segments; anal tuft ferruginous; primaries below black; two spots in the cell and one just beyond it creamy white; costal border and apex ferruginous; outer border cupreous-brown; internal area shining grey; fringe pale greyish buff, sericeous, tipped with ochreous and white; secondaries with the costal third ferruginous, the

discoïdal area white ; a black spot in the cell and a large reniform black spot at the end of the cell ; anal two-thirds of external border broadly black ; fringe white, traversed by a grey line ; pectus sordid white ; anterior tibiæ ferruginous, tarsi brown ; posterior tibiæ pinky whitish ; venter flesh-coloured, banded with grey ; anus ferruginous ; expanse of wings, 1 inch 3 lines.

Токей (*Fenton*).

ACONTIIDÆ.

69. *Leocyma nervosa*, n. s.

Shining silvery white ; primaries above with the nervures pale bronzy brown ; antennæ brown ; a smooth shining black dash on each side of the thorax behind the tegulæ ; primaries below pale golden brown ; the internal area and a streak in the cell white ; secondaries and body silvery white ; legs opaline* ; proboscis orange-yellow ; expanse of wings, 1 inch and $\frac{1}{2}$ line.

Токей (*Fenton*).

The genus *Chasmina* of Walker, placed by that author in the *Leucaniidæ*, will have to sink as a synonym of *Leocyma* ; so that my opinion that *Chasmina* would prove to be more nearly allied to the *Acontiidæ* (see P. Z. S. 1880, p. 675, note) has been fully borne out ; the species above described comes nearest to *L. albonitens* of Bremer, which also occurs at Токей ; but may readily be separated by its brown veins, smaller size, and rather different neururation ; the subcostal branches and the second and third median branches of the secondaries being emitted from distinctly longer footstalks ; this character does not appear in the present instance to be a generic one, as it increases gradually as the species diminish in size ; thus *L. dianæ* (*glabra*, Wlk.), has hardly a trace of either footstalk ; *L. cygnus* has a short subcostal footstalk ; *L. albonitens* has a decidedly longer subcostal one, but no median one worth the name (the branches, as in the two preceding species, are closely approximated at their bases) ; finally *L. nervosa* has a long subcostal and a short median footstalk.

* The tarsi are brownish, but this appears to be due to rubbing.

70. *Dyrzela cara*, n. s.

Primaries above sericeous sandy brown, washed with pink; an abbreviated subbasal pink stripe followed at basal third by an oblique pink stripe, margined externally with dark brown; a very large chocolate-coloured triangular patch, with rounded posterior margin, from the cell to the centre of the disc on the costal half of the wing, divided by the discal stripe, which is nearly straight, pink, and with black inner edge from the inner margin to the upper radial vein, where it is abruptly angulated and curved inwards across the chocolate-coloured patch to costal margin; this part of the stripe is snow-white; a subapical oval black spot, with a black dot both above and below it; fringe speckled with greyish; secondaries grey, sericeous, with bronzy reflections; fringe testaceous at base, traversed by a brown line, white externally, washed at apex with pink; thorax testaceous, washed with pink; abdomen pale greyish, with slight bronzy reflections; primaries below with the discoidal area grey, with slight golden bronze reflections, the discal stripe of the upper surface limiting the grey area, but not distinctly indicated, excepting by a white costal spot; the disc beyond the grey area pale golden brown; costal border, outer margin, and fringe rosy; secondaries whitish, with slight golden reflections, apical area rosy; a dot at the end of the cell and an arched discal line dark grey; body below white, slightly pink in the centre; legs opaline; expanse of wings, 1 inch 1 line.

Токей (*Fenton*).

Nearest to *D. plagiata* of India.

ERASTRIIDÆ.

71. *Erastria atrata*, n. s.

Allied to *E. fuscula*; primaries above dull black, becoming brownish towards the outer margin, crossed at basal third by a velvet-black oblique zigzag line; orbicular spot obsolete; reniform mottled with white, and confounded with a white-mottled costal spot, with which it makes a large triangular patch, interrupted on the costal margin by two small black spots, and in the reniform spot by a black >-shaped marking; a very irregular velvet-black dentated discal line, edged with

white at inner margin; a small bisinuated subapical costal white line; outer border rather narrow, slightly cupreous, limited within by a subconfluent series of sagittate spots; a marginal series of black lunate spots followed by a whitish line at the base of the fringe, the latter dark greyish brown, traversed by a darker central line; secondaries sericeous greyish brown; fringe pale, with a dark line near its base; thorax dull black; abdomen greyish brown; under surface sericeous, pale greyish brown, the costal borders mottled with white brown and white; expanse of wings, 1 inch to 1 inch 1 line.

Токеи (*Fenton*); Yokohama (*H. Pryer*).

Mr. Moore referred me to the genus *Prospalta* of Walker for this species, and I have no doubt that he was right in so doing, but I cannot regard it as distinct from *Erastria*.

72. *Erastria senex*, n. s.

Primaries above silvery white; a large C-shaped dark brown streak at the base, its centre filled in with pale brassy yellowish; an irregular band just before the middle, widely interrupted in the centre, so as to leave only two large spots well defined, dull testaceous, flecked with black-brown; an obtusely angulated brassy yellowish discal band from costal to inner margin, and a rather narrow external border of the same colour: a subapical costal black spot, a grey spot at apex, a black dot near the outer margin on the second median interspace; fringe white tipped with black, a black spot upon it at the apex, two opposite to the median interspaces, and one at external angle; secondaries sericeous, grey, the apical half, excepting a white basal line, grey, the anal half white; head and prothorax pale buff, bordered with black, the remainder of thorax white; abdomen with the basal half white, the anal half pale buff; a dorsal series of black spots; primaries below sericeous grey, with one or two darker costal dashes; inner border whitish; fringe as above; secondaries sericeous creamy white, the costal border and discoidal cell irrorated with grey; a grey discal angulated line; an angular disco-cellular black marking; body below white; legs banded with dark grey; expanse of wings, 1 inch 1 line.

Токеи (*Fenton*).

Nearest to *E. albidula* of North America.

73. *Erastria fentoni*, n. s.

Pale bronze-brown; wings shining; primaries crossed just beyond the middle by an irregular transverse white stripe, immediately followed by a bright ochreous band which encloses a semicircular black-edged snow-white spot at the inferior extremity of the cell; costal border towards apex creamy yellowish; a slightly sinuous sub-marginal stripe, white on the costal border, otherwise whitish brown; head and collar yellowish; under surface whitish brown; wings shining; primaries with the basal half grey; secondaries irrorated with grey scales; expanse of wings, 1 inch 1 line.

Токей (*Fenton*).

ANTHOPHILIDÆ.

74. *Acantholipes metalligera*, n. s.

Flesh-coloured, densely irrorated with dark leaden grey, which is metallic along the costal border; the veins clear, not irrorated with grey; a zigzag sub-marginal white line bounding a series of oval shining plumbageous spots, between which the veins are rust-red; a marginal series of black dots followed by a white line; fringe brown, traversed by two lines of black atoms; primaries crossed by two white lines representing the limits of the central belt; secondaries crossed beyond the middle by a single white line; antennæ dull sordid white; under surface of wings silvery grey, a spot at the end of each cell, a discal line, and the fringe dusky; internal borders white, shining; body below whitish brown; expanse of wings, $9\frac{1}{2}$ lines.

Токей (*Fenton*).

Not nearly allied to any species with which I am acquainted.

PLUSIIDÆ.

75. *Plusia metabracteata*, n. s.

Nearly allied to *P. bracteata* of Europe, from which it chiefly differs in the smaller oblique metallic tin-like spot on the primaries, the form of which is like a bent human thumb, truncated at the base, and with the joint turned towards the inner margin; in *P. bracteata* it is altogether shorter, broader, and more quadrate; the secondaries also have a much narrower and diffused

dusky external border ; expanse of wings, 1 inch 10 lines.

Tokei (*Fenton*).

HYBLÆIDÆ.

76. *Hyblæa fortissima*, n. s.

Allied to *H. puera* ; primaries above similar, but darker ; secondaries darker ; the orange belt placed farther from the outer margin, much broader towards the costa ; marginal orange border replaced by a sub-marginal series of five small orange spots between the first subcostal and the first median branches, and an elongated orange tapering patch across the interno-median area ; fringe orange, with the anal area and a spot opposite to the first median interspace dark brown ; body above blackish brown ; the abdomen with slender yellow hind margins to the segments ; under surface very different from *H. puera* ; primaries orange, with reddish costal and outer borders ; internal area pale ; a large elongated spot near the base below the median vein, a second across the end of the cell, a small spot in the cell, two dots on the costal vein, and a curved discal band forking at its inferior extremity, black ; fringe dark brown, with a white subapical spot ; secondaries orange in the centre, with reddish orange borders ; abdominal area broadly streaked with blackish ; veins on the apical area dotted with black ; a spot at the end of the cell, an arched interrupted irregular streak from second median branch to anal angle, and a slender line on the margin beyond it, black ; fringe almost as above, but brighter in colour ; palpi below white ; pectus pale sordid yellow, the tarsi banded with brown ; venter yellowish, the posterior segments obscurely banded with reddish, and flecked with black ; anal tuft brown ; expanse of wings, 1 inch 6 lines.

Tokei (*Fenton*).

TOXOCAMPIDÆ.

77. *Apopestes inconspicua*, n. s.

Most like *A. phantasma*, but not much larger than *Autophila dilucida* of Europe ; primaries sericeous, whity brown, densely irrorated with dark grey, so that the general appearance is greenish grey ; the dark irroration is less dense along the edges of the dentated lines, so that they will have a pale margin either on one

side or the other ; three irregularly dentated dark grey lines, the first oblique, at basal fourth, the second and third subparallel, transverse, dividing the disc into three nearly equal parts ; a fourth almost obsolete between the first and second, part of which forms a blackish >-like marking on the disco-cellulars ; a marginal series of black dots ; costal border spotted with black ; fringe whitish brown ; secondaries whitish brown, slightly greyish, crossed by a central bisinuated grey stripe and a broad grey external border ; thorax pale brown, speckled with black ; abdomen whitish brown ; under surface whitish brown ; wings crossed just beyond the middle by a curved grey stripe, and near the outer margins by a grey band ; a slender dark grey zigzag marginal line ; primaries with an oblique costal blackish streak just before the middle, a second at the commencement of the post-median stripe and three small spots at the commencement of the discal band ; body slightly yellower than the wings ; anterior legs blackish above, the tarsi banded with whitish ; expanse of wings, 1 inch 10 lines.

Токей (*Fenton*) ; Yokohama (*H. Pryer*).

The specimen received from Mr. Pryer is rather darker than those from Токей, and has blackish spots on the disco-cellulars below.

78. *Toxocampa vulcanica*, n. s.

Allied to *T. ludicra* of Europe, from which it may easily be distinguished by its much greater size, more lilacine primaries, and darker secondaries ; the latter are bronze-brown, with a broad fuliginous-brown border and whitish brown fringe ; expanse of wings, 2 inches to 2 inches 2 lines.

Токей (*Fenton*).

A specimen of this species, sent from Yokohama by Mr. H. Pryer, is paler even than ordinary examples of *T. ludicra*, but it is not in good condition, and appears to me to be much faded ; its size is slightly superior to the Токей specimens.

POLYDESMIDÆ.

79. *Pandesma virens*, n. s.

Near to *P. eurychlora* of India ; primaries pale emerald-green, slightly irrorated with black, and crossed by

darker dentate-sinuate lines partly bordered with white ; an abbreviated irregular subbasal red-brown belt, almost divided in the cell by a streak of green speckled with black ; orbicular and reniform spots outlined in white ; a broad angulated and undulated discal red-brown belt, followed immediately by a marginal chain-like series of large subconfluent green spots with brown centres ; the apex and two or three longitudinal streaks on the radial interspaces blackish ; fringe dark brown spotted with whitish ; secondaries greyish brown, with cupreous reflections ; costal area towards base white, opaline ; thorax green, banded with black and white ; abdomen pale shining brown, with dusky dorsal tufts, and white hind margins to the segments ; under surface sandy brown, with golden reflections ; wings with black angulated disco-cellular markings ; a dusky dentated line just beyond the cell, and a diffused greyish discal band ; a slender black marginal line ; fringe spotted with blackish ; primaries with the interno-basal area opaline-white ; tarsi black, banded with pale sandy yellow ; expanse of wings, 1 inch 9 lines.

Tokai (*Fenton*).

Dandaca eurychlora, *D. biformis*, and *Felinia terminigera* must be referred to *Pandesma* of Guénée ; *Dandaca senex*, on the other hand, belongs to the genus *Eliochroæa* of Walker, which should be placed next to *Blenina* in the *Amphipyridæ*, whilst *Dandaca columba* will supersede the genus *Minica*, with which it agrees in structure.

HYPOGRAMMIDÆ.

80. *Gerbatha subfasciata*, n. s.

Primaries above sericeous leaden grey ; base brownish ; an angular dark grey line, indented in the middle, across the basal third, followed immediately by the central band, which is broad but constricted in the middle, its upper half outlined in chocolate-brown, and crossed by three oblique dark grey lines, which are washed, within the cell, with reddish cupreous ; the subcentral portion of this band, from the second median branch to the middle of the interno-median interspace is reddish cupreous, and from this point to the inner margin dark chocolate-brown, edged with black ; immediately beyond the central band is a widely bisinuated dark grey line ; the orbicular spot is obsolete, and the reniform spot, which

falls just within the central band, is feebly indicated by a C-shaped grey outline; an indistinct sinuated grey submarginal line; two widely separated dusky spots close to the outer margin, and a marginal series of black dots; fringe brownish, traversed by a dark grey line; secondaries greyish, changing to bronzy brown in certain lights; a dusky marginal line; fringe brownish, traversed by a dark grey line; thorax grey, with the posterior margin of the collar black; tegulae more or less washed with rose-red; metathorax with central testaceous tufts; abdomen greyish white or pale greyish brown, dorsal tufts black and lake-brown; anal tuft dark brown; under surface whity brown; wings shining, with disco-cellular spots, a discal stripe, and an indistinct marginal series of dots, grey; expanse of wings, 1 inch 1 line.

Токеи (*Fenton*).

81. *Gerbatha granitalis*, n. s.

Primaries above granite-grey, crossed at basal sixth by an oblique zigzag black line; a bisinuated oblique black line at basal third, forming the inner limit of the central belt; the latter is oblique, dark grey, washed with reddish in the cell, its upper two-thirds diffused, only partly limited by an indistinct transverse quadrate "reniform" spot, its lower third limited externally by the discal line, which is black and sigmoidal; an indistinct grey line parallel to and immediately beyond the discal line; external area and a discal nebula cupreous-brown; a longitudinal black streak running inwards from the external angle almost to the discal line; a blackish marginal line; fringe slaty grey; secondaries pale shining brown; fringe with a whitish basal line; thorax granite-grey; abdomen greyish brown; under surface pale shining pinky brown; the secondaries with an indistinct darker disco-cellular spot and bisinuated discal line; fringe and under surface of body paler than the wings; expanse of wings, 1 inch 1 line.

Токеи (*Fenton*).

82. *Ercheia umbrosa*, n. s.

Nearest to *E. tenebrosaria* of the Andaman Islands, but at once distinguishable by the entire absence of white

spots from the secondaries; primaries above shining dull purplish brown, the internal area, a large marginal spot on the second median interspace, and a small marginal subapical spot, sandy yellowish; two or three irregular spots and streaks of yellowish over and beyond the end of the cell; the black irregular lines abbreviated much as in *E. cyllaria* of Cramer; two or three discal longitudinal black lines towards the apex; a widely bisinuated submarginal white line towards the external angle; secondaries greyish brown, with bronzy reflections; basi-costal area opaline-white; a very irregular pale stripe just beyond the middle, and a second abbreviated stripe towards the anal angle; fringe sandy yellowish, spotted with greyish brown, and with creamy whitish towards apex; thorax sandy yellowish, with the sides of the collar and the tegulæ broadly streaked with dark brown; abdomen pearly grey; under surface nearly as in the allied species, and scarcely differing from *E. tenebrosaria*; expanse of wings, 2 inches 5 lines.

Токей (*Fenton*).

CATOCALIDÆ.

83. *Catocala omphale*, n. s.

Primaries above rich olive-brown; the base lilacine grey, crossed at costa by a biangulated black line; an oblique curved black band enclosing a pale brown stripe, limiting the central belt internally; the latter extending far into the disc, similar in form to that of *C. jonassii* (Ill. Typ. Lep. Het. ii., pl. xxxiii., fig. 6), but in colouring nearer to *C. ella*, the costal half being white internally, and brown varied with whitish externally, the median branches, radials, and longitudinal streaks on the radial interspaces black; lower half lilacine grey; orbicular spot obsolete; reniform white, with brown centre and black margins, and just below it a black-edged semicircular white spot; a diffused oblique blackish streak from the apex almost to the semicircular spot*; costal area immediately beyond the central belt speckled with white; a submarginal series of squamose whitish hastate spots, bounded internally by a slender zigzag blackish stripe; a marginal series of black-edged pure white dots; fringe speckled internally and spotted externally with white; secondaries purplish brown, almost black,

* On the left side this spot is exactly like an italic *D*.

excepting towards the abdominal margin; a spot at the origin of the medial branches, and a rather slender angulated and externally dentated band beyond the cell orange; an ochreous marginal streak at apex; apical fringe white, remainder of fringe greyish brown, spotted with testaceous; thorax ash-grey, barred with black; abdomen olive-brown, the sides at base and the anal tuft grey; wings below sordid creamy whitish, an angulated black discal belt, and a broad internally angulated external blackish border; fringe spotted with blackish; primaries with a broad oblique subbasal belt, the area between the discal belt and the external border nearly pure white; a whitish diffused apical costal streak; secondaries with a dusky diffused brownish oblique bar across the abdominal area, and representing the subbasal belt of the primaries; apex greyish; body below woolly white; legs speckled with black; the tarsi black, banded with cream-colour; expanse of wings, 2 inches 8 lines.

Tokei (*Fenton*).

One of the most beautiful of the Eastern *Catocalæ*; it seems to be most nearly allied to *C. xarippe* of Hakodaté.

84. *Catocala connexa*, n. s.

Primaries almost exactly as in *C. esther* (Ill. Typ. Lep. Het. pt. ii., pl. xxxiii., fig. 9 (1878)), but of an almost uniform ash-grey tint; secondaries nearly as in *C. paranympa* of Europe, excepting that the loop-like band from the base is carried down to the external belt, so that it leaves only a spot of the ground colour close to the margin on the interno-median area, where (in *C. paranympa*) the external belt is interrupted; the outer half of the loop-like band is also broader, and the centre of it of a duller yellow colour than in the European species; expanse of wings, 2 inches 2 lines.

Tokei (*Fenton*).

This species should stand between *C. paranympa* and *C. esther*.

85. *Catocala nubila*, n. s.

Nearest to *C. dotata* of India; primaries above granite-grey, slightly tinted with brown behind the black markings, which are as follows: a black spot with pale centre

at the base of the costa; an irregular abbreviated belt from the costa at basal fourth, its centre traversed by an irregularly sinuated pale line; a second somewhat similar band from the centre of the costa to the origin of the second and third median branches; from these abbreviated bands two approximated undulated slender black lines run to the inner margin; two subparallel denticulated discal lines, the inner one abruptly angulated and duplicated towards the costa; a marginal series of black dots bordered externally with white; fringe brown, spotted with blackish; secondaries bright ochreous, the abdominal area pale dull pinky brown; an irregularly angulated unequal central belt and a rather broad marginal belt, sinuated internally, and interrupted at apex by a large ochreous spot, blackish chocolate; fringe spotted with blackish (excepting at apex) at the extremities of the veins; thorax pale grey, barred with black; abdomen pale brown, whitish at the sides; wings below straw-yellow, crossed by a central oblique externally angulated chocolate-brown band and a broad marginal belt, interrupted at apex by a large spot of the ground colour, primaries crossed near the base by a very oblique greyish brown belt; the external belt sharply angulated internally; secondaries pale towards the abdominal border; the external belt trisinuated internally as above; body below white; tarsi black, banded with pale yellow; expanse of wings, 2 inches 6 lines.

Токей (*Fenton*).

HYPOPYRIDÆ.

86. *Spirama ægrota*, n. s.

Near to *S. martha**, but rather paler above, and with less prominent markings; the first and second lines on the primaries much nearer together, the third line hardly represented, excepting by the black dots on the nervures; the disc more pink in tint, the external area decidedly more greenish olive in colour, and the fringe much more rosy; the body paler and greyer; below, the differences are more decided; the whole ground colour is of a brilliant brick-red colour, not sordid as in *S. martha*; the first transverse dusky line of the primaries is barely distinguishable, and crosses the wing at the end of the cell, instead of at some distance beyond it, the other lines

* "*Hypopyra martha*" (Ill. Typ. Lep. Het. ii., pl. xxxiv., fig. 3.)

are more slender; the dusky external border is wholly wanting; the fringe is shining grey; expanse of wings—male, 2 inches 8 lines; female, 3 inches 3 lines.

Токей (*Fenton*).

87. *Spirama simplicior*, n. s.

Near to *S. japonica*, *S. retorta*, and allies, but both sexes above with the typical female coloration, the male being only slightly darker than the female, and most noticeably so in having the basal half of the secondaries blackish brown; the principal differences between this species and female of *S. japonica* are in the smaller black spot at the extremity of the scroll-like line of the primaries, and in the almost straight instead of dentate-sinuate pale stripe beyond the dark discal belt of the secondaries; the ground colour is also of a more rosy flesh-tint, with no white stripes; the males are easily separable, that of *S. japonica* being black-brown, with bronzy reflections above and below (as usually in this genus); under surface of male *S. simplicior* always with a trace of red, frequently sordid rose-red throughout; female bright orange, the lines rather more slender than in *S. japonica*; expanse of wings—male, 2 inches 6 lines; female, 3 inches, 4 lines.

Токей (*Fenton*); Nikko (*Maries*); Yokohama (*Jonas*).

OPHIUSIDÆ.

88. *Chrysorithrum fuscum*, n. s.

♀. Primaries with the same pattern as *C. amatum**, but the whole of the lilacine grey areas replaced by olive-brown; the black spot representing the "orbicular" wanting; the outer border paler than the rest of the wing; secondaries with the black diffused bands narrower, and the central orange belt of a different form, wider, and with undulated inner margin; body greyer; expanse of wings, 2 inches 7 lines.

Токей (*Fenton*).

89. *Chrysorithrum rufescens*, n. s.

♀. Also allied to *C. amatum*, but the primaries with pink instead of lilacine ground colour, and with the dark

* *Catocala amata*, Brem.; Ménétriés, Cat. Lep. Mus. Petrop. iii., pl. xvii., fig 4.

markings rich reddish chocolate; the outer (forked) belt broader, and with much straighter inner edge, the sub-basal belt less acutely angulated; secondaries with a deep orange band across the basal third, tapering from the costa to the end of the cell; the ordinary orange discal belt much deeper in colour and more angular; a large bright ochreous apical patch; a narrow external border continuous with the ochreous patch, and a large diffused marginal obtusely conical patch near the external angle sordid ochreous; body more uniform in colouring; under surface considerably brighter in colour, ochreous, the external area of the primaries and the greater part of the secondaries washed with brownish and irrorated with minute dusky lines; the transverse belt just beyond the middle of the primaries bright black, instead of dark brown, and narrower than in *C. amatum*, the belt beyond it (pale sordid straw-yellow in Bremer's species) bright ochreous, and of more than double the width; external angle clear yellow, a discal diffused black patch above the latter; central line of secondaries distinctly sinuous and irregular instead of simply arched, the nebulous discal belt less distinct and broadly excavated externally; expanse of wings, 2 inches 9 lines.

Yokohama (*Jonas*).

When we received this species I supposed that the above differences between it and *C. amatum* were due to sex; as, however, I now know that the sexes of that species do not differ either in colour or pattern, it has been necessary to give this form a distinct name.

THERMESIIDÆ.

PYRINIOIDES, n. g.

Aspect of *Pyrinia* (*Geometrites*), but apparently allied to *Thermesia*; the primaries triangular, with the costal and outer margins slightly sinuous, apex acute; median vein four-branched, the discoidal cell much elongated; secondaries rather small, short pyriform, the cell short and very broad; costal border swollen near the base; thorax short, rounded; abdomen slender, slightly tapering; head small, with short palpi; antennæ rather short, not pectinated, but with an extremely short internal fringe; posterior tibiæ with a slender pencil, the full length of this joint, emitted from the knee.

90. *Pyrinioides aurea*, n. s.

Shining golden yellow, reticulated with red-brown; primaries crossed by a dark brown post-median line, to which three red-brown parallel lines run, at about equal distances apart, from the middle of the outer margin, the external angle, and the inner margin; secondaries crossed before the middle by a red-brown line towards which two other lines, from the anal angle and the outer margin, converge; body paler than the wings, back of metathorax whitish; third abdominal segment pink, with red-brown posterior margin; under surface pale straw-yellow; markings nearly as above, less conspicuous; primaries with a dark spot at the end of the cell; internal border sericeous pinky whitish; expanse of wings, 1 inch.

Токеи (*Fenton*).

A most extraordinary little species; the slender pencil of hair which lies close along the front margin of the tibial joint of the hind legs is unusually long for such an appendage.