

## DESCRIPTIONS OF NEW SPECIES OF JAPANESE, FORMOSAN, AND PHILIPPINE GEOMETRIDAE.

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THE descriptions in this paper are based on material in the collection of the late A. E. Wileman, which has recently been presented to the British Museum (Natural History) by Mrs. Wileman in memory of her husband.

### SUBFAMILY GEOMETRINAE

#### *Microniodes opalescens* sp.n.

♂: *Palpus* ochraceous-buff. *Antenna* bipectinate. *Head*: frons and vertex white, a wide band of burnt sienna below bases of antennae, occiput white tinged with burnt sienna. *Thorax*: patagium white, tinged with burnt sienna anteriorly; tegula white. *Abdomen* white above and beneath. *Pectus* white. *Legs* white tinged with drab. *Forewing* white, slightly opalescent, drab irrorated with hair-brown on costa, a drab spot on discocellulars; an inwardly oblique, drab, wavy line, from cell at vein 2, to inner margin subbasally; an inwardly oblique, drab line, diffusely edged distally, from apex to inner margin medially; subterminally a series of drab dots, one on each vein; termen drab. *Hindwing* white, slightly opalescent; medially an inwardly oblique, drab line diffusely edge distally, in continuation of line from apex on forewing; postmedially an inwardly oblique, drab line; subterminally a series of inter-neural drab dots; termen drab, angled at vein 4. *Underside*: fore- and hindwings white, slightly opalescent, drab on costa of forewing.

*Expanse* 43 mm. (*tip to tip* 40 mm.).

♀: Similar to ♂, but antenna ciliate, with paired setae.

*Expanse* 46 mm. (*tip to tip* 42 mm.).

*Holotype* ♂: 1.xii.1912; *allotype* ♀: 2.xii.1912; *paratype* ♀: 2.i.1913; Philippine Is., Luzon I., subprov. Benguet, Pauai, Haight's Place, 7,000 ft.

Nearest ally: *M. ocernaria* Swinh. (Assam).

#### *Microniodes minor* sp.n.

♂: *Palpus* light buff. *Antenna* finely bipectinate. *Head*: frons and vertex warm buff. *Thorax*: patagium and tegula white. *Abdomen* white above and beneath, with a narrow amber-yellow band at base dorsally. *Pectus* light buff. *Legs* light buff. *Forewing* opalescent sparsely irrorated with chestnut-brown, amber-yellow on costa, an amber-yellow spot on median nervure at vein 2, another on anal vein subbasally; postmedially an amber-yellow, inwardly oblique, broken line, from vein 6 to inner margin medially; subterminally an amber-yellow, broken line from vein 6 to inner margin, beyond this a series of chestnut-brown dots on veins, termen amber-yellow. *Hindwing* opalescent, sparsely irrorated with chestnut-brown; medially an amber-yellow, inwardly oblique line, in continuation of postmedial line on forewing; sub-



terminally an amber-yellow, broken line, in continuation of subterminal line of forewing; beyond, a series of chestnut-brown dots on veins, termen amber-yellow, angled at vein 4. *Underside*: forewing opalescent, amber-yellow on costa and termen; hindwing opalescent, termen amber-yellow.

*Expanse* 26 mm. (*tip to tip* 23 mm.).

*Holotype* ♂: Philippine Is., Luzon I., subprov. Benguet, Klondyke, 800 ft., 29.iv.1912.

Nearest ally: *M. ocernaria* Swinh. (Assam), which is, however, considerably larger.

#### ***Plutodes pulcherrima* sp.n.**

♀: *Palpus* light buff. *Antenna* bipectinate. *Head*: frons warm buff, vertex cartridge-buff. *Thorax*: patagium primrose yellow, tegula cinnamon-buff. *Abdomen* cinnamon-buff, venter light buff. *Pectus* light buff. *Legs* light buff tinged with cinnamon-buff. *Forewing* cinnamon-buff, primrose-yellow along costa; medially a primrose-yellow band edged with blackish brown and metallic scales; subterminal fascia a fuscous, wavy line; termen with blackish brown and metallic scales, fringe primrose-yellow. *Hindwing* cinnamon-buff; medially a primrose-yellow band edged with blackish brown and metallic scales, forming a continuation of medial band on forewing; subterminal fascia a fuscous, wavy line; termen with blackish brown and metallic scales, angled at vein 4, fringe primrose-yellow. *Underside*: fore- and hindwings light buff tinged with cinnamon-buff, markings showing through from upperside.

*Expanse* 32 mm. (*tip to tip* 28 mm.).

*Holotype* ♀: Philippine Is., Luzon I., subprov. Benguet, Klondyke, 800 ft., i.iv.1912.

Nearest ally: *P. exiquinota* Hmps. (Ceylon).

#### ***Cassyma arcuata* sp.n.**

♀: *Palpus* warm buff mixed with hazel. *Antenna* minutely ciliate. *Head*: frons warm buff, vertex warm buff mixed with hazel. *Thorax*: patagium fuscous, tegula warm buff mixed with hazel. *Abdomen* warm buff mixed with hazel, venter warm buff. *Pectus* warm buff. *Legs*: foreleg warm buff tinged with fuscous above, other legs warm buff. *Forewing* warm buff densely irrorated with hazel, warm blackish brown on costa; medially a warm blackish brown line, slightly incurved to median nervure, where there is a small point, then straight to inner margin; postmedially an ill-defined line; subterminally a warm blackish brown line, incurved to vein 5, where there is a short bar to termen, incurved to vein 2, then straight to tornus. *Hindwing* warm buff densely irrorated with hazel; medially a warm blackish brown line, forming a continuation of medial line of forewing; subterminally a warm blackish brown line, forming a continuation of subterminal line of forewing; excurved to vein 5, incurved to tornus. *Underside*: fore- and hindwings, warm buff, markings the same as on upperside, but wider and more sharply defined.

*Expanse* 28 mm. (*tip to tip* 25 mm.).

*Holotype* ♀: 28.xii.1912; *paratype* ♀: 26.xii.1912. Philippine Is., Luzon I., subprov. Benguet, Palali, 2,000 ft.; *paratype* ♀: Luzon I., prov. Rizal, Montalban, 24.iii.1914.

Nearest ally: *C. subtessellata* Wlk. (India).



**Cassyma retessellata** sp.n.

♂: *Palpus* warm buff. *Antenna* ciliate. *Head*: frons warm buff, with a band of chestnut below bases of antennae, vertex warm buff mixed with chestnut. *Thorax*: patagium warm buff mixed with chestnut, tegula warm buff mixed with chestnut with a band of chestnut posteriorly. *Abdomen* warm buff mixed with chestnut, venter light buff. *Pectus* light buff. *Legs* warm buff. *Forewing* warm buff irrorated with chestnut, a short longitudinal streak of chestnut at base; antemedially a fine chestnut line, outwardly oblique, touching medial line in cell, then inwardly oblique to inner margin; medially a thicker chestnut line, incurved to lower angle of cell, sharply angled and incurved to inner margin; postmedially a fine chestnut line, oblique to vein 6, incurved to vein 3, incurved to inner margin; subterminally a thick chestnut line, incurved to vein 5, incurved to vein 2, incurved to inner margin; termen warm blackish brown, with warm blackish brown patch at vein 5 and at tornus. *Hindwing* concolorous with forewing, the lines forming continuations of lines on forewing; subbasal line inwardly oblique, medial line incurved to upper angle of cell, incurved to vein 2, incurved to inner margin; postmedial line wavy, subterminal line, incurved to vein 5, inwardly oblique to vein 4, outwardly oblique to tornus, termen blackish brown. *Underside*: forewing warm buff irrorated with warm blackish brown, medial and subterminal lines similar to those on upperside, warm blackish brown; hindwing light buff, medial and subterminal lines similar to those on upperside, warm blackish brown.

*Expanse* 22 mm. (*tip to tip* 20 mm.).

♀: Similar to male, but antenna minutely ciliate.

*Expanse* 22 mm. (*tip to tip* 20 mm.).

*Holotype* ♂: 22.vi.1914; *allotype* ♀: 21.vi.1914. Philippine Is., Mindanao I., subprov. Lanao, Kolambugan (plains); *paratype* ♂: Philippine Is., Luzon I., subprov. Benguet, Klondyke, 800 ft., 23.iii.1912.

Nearest ally: *C. insulata* Warr. (Ké Island).

**Parasynergia defixaria** sp.n.

♂: *Palpus* warm buff, a patch of wood-brown on second segment. *Antenna* bipectinate, ciliate on apical sixth. *Head*: frons warm buff, with a band of chestnut across middle, vertex light buff, a small chestnut tuft projecting forward. *Thorax*: patagium wood-brown, tegula light buff. *Abdomen* warm buff suffused with wood-brown, irrorated with ochraceous-orange, venter light buff. *Pectus* light buff. *Legs*: foreleg light buff, wood-brown on coxa; other legs light buff. *Forewing* warm buff densely irrorated with ochraceous-orange, and sparsely with fuscous-black, wood-brown on costa irrorated with fuscous-black; a fuscous-black cell spot; postmedial fascia wood-brown, crenulate, incurved to vein 6, inwardly oblique to inner margin; subterminal fascia broken into diffuse fuscous-black spots, in a suffusion of wood-brown; a fuscous-black spot at apex, and interneural fuscous-black spots on termen. *Hindwing* concolorous with forewing; postmedial fascia fuscous, excurved; subterminal fascia broken into diffuse fuscous-black spots. *Underside*: forewing light buff lightly irrorated with fuscous-black; a fuscous-black cell spot; postmedial fascia fuscous; subterminal fascia fuscous-black as on upperside.

*Expanse* 32 mm. (*tip to tip* 29 mm.).



*Holotype* ♂: Philippine Is., Luzon I., subprov. Benguet, Palali, 2,000 ft., 24.xii.1912.

Nearest ally: *P. infixaria* Wlk. (India, Assam).

### **Syntaracta saturata** sp.n.

♀: *Palpus* ochraceous-orange, fuscous on base of second and third segments. *Antenna* minutely ciliate, with paired setae. *Head*: frons and vertex ochraceous-orange. *Thorax*: patagium ochraceous-orange, a border of ochre-red and fuscous posteriorly, tegula ochraceous-orange suffused with ochre-red. *Abdomen* light buff suffused with ochre-red, a few scattered specks of fuscous-black, venter light buff. *Pectus* light buff. *Legs* light buff, fuscous on tibia of foreleg. *Forewing* ochraceous-orange overlaid with ochre-red, irrorated with fuscous-black, costa light buff suffused with ochre-red; two fuscous-black spots at base, one on costa, the other on inner margin; the area between the antemedial and postmedial fasciae a little more densely irrorated, giving the appearance of a band across the wing, in which is a fuscous-black cell spot; antemedial fascia fuscous, excurved, crenulate (points basad), a fuscous-black spot on each point; postmedial fascia fuscous, inwardly oblique, crenulate (points distad), a fuscous-black spot on each point; subterminal fascia fuscous, ill-defined, wavy; inter-neural fuscous-black spots on termen. *Hindwing* concolorous with forewing, fasciae forming continuations of those on forewing. *Underside*: fore- and hindwings light buff irrorated with fuscous-black, fasciae the same as on upperside.

*Expanse* 40 mm. (*tip to tip* 38 mm.).

*Holotype* ♀: 5.xii.1912; *paratype* ♀: 30.xi.1912. Philippine Is., Luzon I., subprov. Benguet, Pauai, Haight's Place, 7,000 ft.

Nearest ally: *S. camptogrammaria* Guen. (Assam, Borneo).

### **Syntaracta assimilis** sp.n.

♀: *Palpus* pinkish buff tinged with ochre-red. *Antenna* minutely ciliate. *Head*: frons pinkish buff tinged with ochre-red, ochre-red border on lower edge, vertex pinkish buff tinged with ochre-red. *Thorax*: patagium pinkish buff, a transverse dividing line of ochre-red, fuscous posteriorly, tegula pinkish buff tinged with ochre-red. *Abdomen* sepia, with a pinkish buff patch on each segment, venter light buff. *Pectus* light buff. *Legs* light buff. *Forewing* pinkish buff irrorated with ochraceous-tawny, more densely between the antemedial and postmedial fasciae, suggesting a wide band across the wing, in which is a fuscous-black cell spot; costa sepia with a slight purple tinge, irrorated with fuscous; antemedial fascia sepia, inwardly oblique, crenulate (points basad); postmedial fascia sepia, inwardly oblique, crenulate (points distad); subterminal fascia sepia, crenulate, wavy; a fuscous-black spot on termen at end of each vein. *Hindwing* concolorous with forewing, fasciae forming continuations of those on forewing. *Underside*: fore- and hindwings light buff, fasciae same as on upperside.

*Expanse* 42 mm. (*tip to tip* 40 mm.).

*Holotype* ♀: 28.vi.1913; *paratypes*: 3 ♀♀, 24.vi., 20.vii.1913, 17.xi.1912, Philippine Is., Luzon I., subprov. Benguet, Pauai, Haight's Place, 7,000 ft.

Nearest ally: *S. hadassa* Butl. (China, Japan).



**Syntaracta tertia** sp.n.

♂: *Palpus* light buff suffused with buckthorn-brown. *Antenna* minutely ciliate, with paired setae. *Head*: frons and vertex light buff suffused with buckthorn-brown. *Thorax*: patagium light buff suffused with buckthorn-brown, tegula light buff. *Abdomen* light buff above and beneath, a buckthorn-brown V-shaped mark on each segment dorsally. *Pectus* light buff. *Legs* light buff. *Forewing* irrorated with buckthorn-brown, on costa with wood-brown; cell spot bone-brown surrounded with buckthorn-brown; postmedial fascia buckthorn-brown, inwardly oblique, wavy, with a streak to termen between veins 2 and 3; subterminal fascia buckthorn-brown parallel to postmedial with a short streak to termen between veins 6 and 7. *Hindwing* concolorous with forewing, bone-brown cell spot surrounded with buckthorn-brown, postmedial and subterminal fasciae forming continuations of those on forewing. *Underside*: fore- and hindwings light buff, markings showing through from upperside.

*Expanse* 36 mm. (*tip to tip* 33 mm.).

*Holotype* ♀: Formosa, Suisha, 19.vii.1908.

Nearest ally.—*S. secunda* Swinh. (Sumatra).

**Syntaracta nigrיתיbiata** sp.n.

♀: *Palpus*: first and second segments light buff, fuscous-black at joints, third segment fuscous-black. *Antenna* minutely ciliate, with paired setae. *Head*: frons warm buff, with a chocolate spot laterally, vertex warm buff. *Thorax*: patagium warm buff, with a patch of fuscous-black posteriorly, tegular warm buff, a patch of fuscous-black near posterior end, two fuscous-black spots on metathorax. *Abdomen* warm buff, a series of fuscous-black spots in pairs, widely separated at base, gradually becoming closer and almost touching on anal segment, venter light buff. *Pectus* light buff. *Legs*: foreleg light buff, fuscous-black at joints of tibia; midleg light buff, fuscous-black at upper joint of tibia; hindleg light buff. *Forewing* warm buff irrorated with Natal brown, with fuscous-black on costa; cell spot fuscous-black; antemedial fascia Natal brown, excurved, crenulate (points basad), a fuscous-black spot on each point; postmedial fascia Natal brown, inwardly oblique, crenulate (points distad), a fuscous-black spot on each point; subterminal fascia Natal brown, crenulate, ill-defined, broken; fuscous-black spots on veins at termen. *Hindwing* concolorous with forewing, cell spot fuscous-black, fasciae forming continuations of fasciae on forewing, fuscous-black spots on veins at termen. *Underside*: fore- and hindwings light buff, markings showing through from upperside.

*Expanse* 35 mm. (*tip to tip* 32 mm.).

*Holotype* ♀: Philippine Is., Luzon I., subprov. Benguet, Pauai, Haight's Place, 7,000 ft., 8.xi.1912.

Nearest ally: *S. nigrellata* Warr. (New Guinea).

**Aplochloa similis** sp.n.

♀: *Palpus* wood-brown. *Antenna* ciliate. *Head*: frons and vertex wood-brown. *Thorax*: patagium and tegula mignonette green. *Abdomen* mignonette green above and beneath. *Pectus* light buff. *Legs* light buff. *Forewing* mignonette green; a few scattered spots of wood-brown and fuscous-black; a fuscous-black cell spot surrounded with wood-brown; a broken, wood-brown line



from apex, running inwardly for a short distance, bent and turned downward to below vein 7. *Hindwing* concolorous with forewing, cell spot and other spots similar, angled at vein 4. *Underside*: fore- and hindwings pyrite yellow.

*Expanse* 32 mm. (*tip to tip* 30 mm.).

*Holotype* ♀: Philippine Is., Luzon I., subprov. Benguet, Baguio, 5,000 ft., 20.iv.1912.

Nearest ally: *A. vivilaca* Wlk. (Ceylon).

### **Heterolocha polymorpha** sp.n.

♂: *Palpus* yellow-ochre suffused with russet. *Antenna* pectinate. *Head*: frons and vertex dark purple drab. *Thorax*: patagium and tegula russet. *Abdomen* yellow-ochre, lightly suffused with russet above and beneath, a russet stripe laterally. *Pectus* yellow-ochre. *Legs* yellow-ochre suffused with russet. *Forewing* yellow-ochre suffused with russet, and tinged with dark purple-drab before antemedial, and beyond postmedial fasciæ; antemedial fascia dark-purple-drab, wavy, outwardly oblique to middle of cell, angled, then inwardly oblique to inner margin; a cartridge-buff cell spot edged with dark purple-drab; postmedial fascia dark purple-drab, inwardly oblique from costa near apex to vein 2, where it is slightly incurved, then straight to inner margin. *Hindwing* yellow-ochre suffused with russet on lower half, tinged with dark purple-drab basally and beyond postmedial fascia; a faint purple-drab cell spot; postmedial fascia dark purple-drab, excurved to vein 6, then straight to inner margin. *Underside*: forewing yellow-ochre irrorated with purple-drab, more densely on basal half; fasciæ and cell spot as on upperside; hindwing yellow-ochre irrorated with purple-drab, more densely on basal half; fascia and cell spot as on upperside.

*Expanse* 34 mm. (*tip to tip* 31 mm.).

♀: Similar to male, but having antenna ciliate; in colouring, the yellow ochre is more predominant and the markings more sharply defined.

*Expanse* 34 mm. (*tip to tip* 31 mm.).

*Holotype* ♂: 27.vi.1913; *allotype* ♀: 3.xii.1912; *paratype* ♂: 3.xii.1912. Philippine Is., Luzon I., subprov. Benguet, Pauai, Haight's Place, 7,000 ft.

Nearest ally: *H. marginata* Wileman (Formosa).

This species appears to be variable, both in depth of colouring and strength of markings.

### **Luxiaria hapala** sp.n.

♂: *Palpus* warm buff mixed with army brown. *Antenna* fasciculate. *Head*: frons army brown, vertex light buff lightly tinged with army brown. *Thorax*: patagium and tegula light buff lightly tinged with army brown. *Abdomen* light buff irrorated with bone-brown above and beneath, a series of bone-brown spots dorsally. *Pectus* light buff. *Legs*: foreleg, coxa warm buff; femur, tibia and tarsus light buff suffused with army brown above; other legs warm buff. *Forewing* light buff suffused with army brown, basal half irrorated with bone-brown, the distal edge of suffusion being an oblique line from apex to inner margin medially; a short, oblique, bone-brown streak, from median nervure medially to inner margin subbasally; another, faintly marked streak, from vein 2 postmedially, to inner margin antemedially; an oblique, wavy, bone-brown line from vein 7 subterminally, to inner margin medially, bordered by light buff proximally, by a Natal brown shade distally; area beyond this



line Natal brown with a short, oblique, bone-brown streak near tornus. *Hindwing* basal half light buff irrorated with army brown, distal half Natal brown; medially an inwardly oblique, army brown line; postmedially an inwardly oblique, bone-brown line, bordered by a Natal brown shade distally. *Underside*: forewing warm buff irrorated with Natal brown; a Natal brown cell spot; the irrorations forming a line postmedially; hindwing light buff tinged with warm buff and irrorated with Natal brown below costa and on subterminal area; subterminal line Natal brown.

*Expanse* 42 mm. (*tip to tip* 40 mm.).

♀: Similar to male, but antenna minutely ciliate.

*Expanse* 42 mm. (*tip to tip* 40 mm.).

*Holotype* ♂: Philippine Is., Luzon I., subprov. Benguet, Pauai, Haight's Place, 7,000 ft., 2.xii.1912; *allotype* ♀: subprov. Benguet, Baguio, 5000 ft., iii.1913; *paratype* ♂: subprov. Benguet, Sapiangao, 5,800 ft., 17.xii.1912; *paratype* ♀: Luzon I., prov. Rizal, Manila (plains), 19.vii.1912.

Nearest ally: *L. amasa* Butl. (Japan).

#### ***Acadra nebulosa* sp.n.**

♂: Palpus warm buff mixed with Natal brown. *Antenna* fasciculate. *Head*: frons warm buff, a band of Natal brown connecting the bases of antennae; vertex warm buff with a band of Natal brown. *Thorax*: patagium warm buff bordered with Natal brown posteriorly; tegula light buff with a Natal brown bar near posterior end; two bone-brown spots on metathorax. *Abdomen* light buff irrorated with Natal brown above and beneath; a Natal brown patch on each segment dorsally; and a series of bone-brown spots laterally. *Pectus* light buff. *Legs* light buff mottled with Natal brown outwardly. *Forewing* light buff tinged with Saccardo's umber, sparsely irrorated with bone-brown; antemedial fascia indicated by a few bone-brown spots; medially a Natal brown, outwardly oblique dash on costa; subterminally a Natal brown, outwardly oblique streak, terminating in a bone-brown spot, two bone-brown patches on costa at apex; from below apex a patch of Saccardo's umber, proximal edge inwardly oblique to vein 4, incurved to vein 2, outwardly oblique to tornus; in this patch is a subterminal series of bone-brown spots. *Hindwing* light buff tinged with Saccardo's umber, irrorated with bone brown; a bone-brown cell spot; a Natal brown, medial fascia from vein 2 to inner margin; postmedial fascia consisting of two Natal brown lines, with a large bone-brown patch covering them between veins 2 and 4, excurved above the patch, incurved below; subterminal fascia Natal brown, straight to vein 6, angled, then inwardly oblique to inner margin, a suffusion of Saccardo's umber subterminally as far as vein 4, where termen is angled. *Underside*: forewing basal two-thirds light buff irrorated with Natal brown, warm buff on costa; a bone-brown cell spot; medial fascia Natal brown, wavy; distal third of wing natal brown suffused with bone-brown subterminally, with an oblique light buff patch at apex; hindwing basal two-thirds light buff irrorated with Natal brown; a bone-brown cell spot; medial fascia Natal brown, wavy; distal third of wing Natal brown suffused with bone-brown subterminally; a patch of light buff on termen from vein 4 to tornus, and on inner margin.

*Expanse* 38 mm. (*tip to tip* 34 mm.).



*Holotype* ♂: Philippine Is., Luzon I., subprov. Benguet, Baguio, 5,000 ft. 18-24.iii.1912.

Nearest ally: *A. acutaria* Wlk. (India, Assam).

#### **Macaria compsa** sp.n.

♂: *Palpus* cream-buff mixed with warm sepia. *Antenna* ciliate. *Head*: frons and vertex cream-buff. *Thorax*: patagium and tegula hair-brown. *Abdomen* cream-buff lightly suffused with hair-brown. *Pectus* cream-buff. *Legs* cream-buff speckled with warm sepia. *Forewing*, basal two-thirds pinkish buff irrorated with hair-brown; distal third benzo-brown; benzo-brown along costa; a small warm sepia cell spot; medially a fine, faintly marked, warm sepia, wavy line; postmedial line warm sepia, slightly excurved; a warm sepia spot just beyond between veins 3 and 4; termen warm sepia. *Hindwing* concolorous with forewing, medial and postmedial lines forming continuations of those on forewing; a small warm sepia cell spot; a warm sepia spot just beyond postmedial line between veins 3 and 4; termen warm sepia, crenulate, angled at vein 4. *Underside*: fore- and hindwings cream-buff irrorated with warm sepia; markings similar to upperside, but distal third bistre with patch of cream-buff irrorated with warm sepia.

*Expanse* 27 mm. (*tip to tip* 25 mm.).

*Holotype* ♂: Philippine Is., Luzon I., subprov. Benguet, Klondyke, 800 ft., 2.iii.1912.

Nearest ally: *M. luteiceps* Warr. (Celebes).

#### **Macaria oxa** sp.n.

♀: *Palpus* deep chrome. *Antenna* minutely ciliate. *Head*: frons and vertex deep chrome. *Thorax*: patagium and tegula deep chrome. *Abdomen* deep chrome; venter warm buff with a lateral deep chrome stripe. *Pectus* deep chrome. *Legs* deep chrome, tarsi fuscous. *Forewing* deep chrome sparsely irrorated with bone-brown; a small fuscous-black patch on costa subbasally; postmedial line bone-brown, commencing with a fuscous-black patch on costa, bordered distally by a fuscous shade, slightly excurved; subterminally a bone-brown spot between veins 3 and 4. *Hindwing* concolorous with forewing, medial line forming continuation of that on forewing. *Underside*: fore- and hindwings similar to upperside in colour and marking.

*Expanse* 24 mm. (*tip to tip* 21 mm.).

*Holotype* ♀: Philippine Is., Luzon I., subprov. Benguet, Klondyke, 1,300 ft., 19.xii.1911.

Nearest ally: *M. luteiceps* Warr. (Celebes).

#### **Macaria psilotes** sp.n.

♀: *Palpus* cartridge-buff, wood-brown above. *Antenna* minutely ciliate. *Head*: frons wood-brown, vertex cartridge-buff. *Thorax*: patagium cartridge-buff, bordered by wood-brown posteriorly; tegula cartridge-buff. *Abdomen* cartridge-buff above and beneath, a double row of fuscous spots dorsally. *Pectus* cartridge-buff. *Legs* cartridge-buff, wood-brown outwardly. *Forewing* cartridge buff lightly suffused with wood-brown and irrorated with fuscous; subbasally a fine wood-brown line, excurved to median nervure, slightly excurved to inner



margin; cell spot fuscous; medially a faintly marked, fine, wood-brown line, outwardly oblique to vein 6, sharply angled, then inwardly oblique and wavy to inner margin; postmedially a fine, wood-brown line, outwardly oblique to vein 6, sharply angled, then inwardly oblique and waved to inner margin; termen between veins 4 and 7 fuscous and excised. *Hindwing* concolorous with forewing, cell spot fuscous; lines forming continuations of those on forewing; termen crenulate, angled at vein 4. *Underside*: fore- and hindwings with basal half white irrorated with wood-brown; distal half wood-brown with a cartridge-buff patch on termen from vein 4 to tornus on both wings.

*Expanse* 36 mm. (*tip to tip* 32 mm.).

*Holotype* ♀: Philippine Is., Mindanao I., subprov. Lanao, Kolambugan (plains), 17.iv.1914.

Nearest ally: *M. intersectaria* Leech (India, Assam, China, Japan).

### ***Iridoplecta ochrias* sp.n.**

♀: *Palpus* white mixed with bistre. *Antenna* ciliate. *Head*: frons and vertex white mixed with bistre. *Thorax*: patagium and tegula white mixed with bistre. *Abdomen* white mixed with bistre, venter white. *Pectus* white. *Legs* white, tinged with bistre outwardly. *Forewing* white; basally a patch of bistre irroration; medially a wavy line of bistre irroration; subterminally a fascia of bistre, broken, excurved, and wavy; interneural bistre spots on termen. *Hindwing* concolorous with forewing, medial line and subterminal fascia forming continuations of those on forewing. *Underside*: fore- and hindwings white; a faint bistre line on forewing medially.

*Expanse* 28 mm. (*tip to tip* 25 mm.).

*Holotype* ♀: 23.iv.1912; *paratype* ♀: 23.v.1912. Philippine Is., Luzon I., subprov. Benguet, Baguio, 5,000 ft.; *paratype* ♀: 18.iii.1912, subprov. Benguet, Klondyke, 800 ft.

Nearest ally: *I. ferrifera* Moore (India, Burma).

### ***Lithina catapasta* sp.n.**

♂: *Palpus* warm buff mixed with russet. *Antenna* bipectinate. *Head*: frons warm buff mixed with russet; vertex warm buff. *Thorax*: patagium and tegula hair-brown. *Abdomen* cartridge-buff irrorated with drab above and beneath. *Pectus* cartridge-buff. *Legs* light buff, drab outwardly. *Forewing* cartridge-buff densely irrorated with drab; cell spot drab; postmedial line drab, slightly excurved to vein 3, then straight to inner margin; interneural drab spots on termen. *Hindwing* concolorous with forewing; cell spot drab; postmedial line forming continuation of line on forewing, excurved, wavy. *Underside*: fore- and hindwings cartridge-buff irrorated with drab.

*Expanse* 30 mm. (*tip to tip* 27 mm.).

*Holotype* ♂: Philippine Is., Luzon I., subprov. Benguet, Sapiangao, 5,800 ft., 15.xii.1912.

Nearest ally: *L. catalaunaria* Guen.

### ***Sabaria elegans* sp.n.**

♂: *Palpus* ochraceous-orange. *Antenna* bipectinate. *Head*: frons pinkish buff, lightly suffused with warm sepia; vertex pinkish buff, a warm sepia spot posteriorly. *Thorax*: patagium pinkish buff, with a warm sepia spot; tegula



pinkish buff, a warm sepia spot posteriorly. *Abdomen* pinkish buff irrorated with warm sepia, venter ochraceous-buff. *Pectus* ochraceous-buff. *Legs* ochraceous-buff, warm sepia on tarsi. *Forewing* pinkish buff striated with warm sepia; a warm sepia spot at base; antemedially a broken, warm sepia fascia, consisting of a spot on costa, followed by two spots, inwardly oblique; cell spot warm sepia; postmedially a warm sepia spot on costa, followed by a warm sepia fascia, obliquely incurved from vein 5 to inner margin; three burnt umber patches on termen, one just below apex, another between veins 4 and 6, the third at tornus. *Hindwing* ochraceous-buff; cell spot warm sepia; pinkish buff irrorated with warm sepia on inner margin, gradually widening to tornus, with a short warm sepia streak postmedially. *Underside*: forewing ochraceous-buff; cell spot warm sepia; a fine warm sepia streak from vein 7 to vein 5; hind-wing ochraceous-buff; cell spot warm sepia; a series of warm sepia spots postmedially.

*Expanse* 26 mm. (*tip to tip* 24 mm.).

*Holotype* ♂: 12.i.1914; *paratype* ♂: 27.i.1914, Philippine Is., Luzon I., prov. Rizal, Montalban.

Nearest ally: *S. lithosiaria* Wlk.

#### **Hypochrocis prouti** sp.n.

♂: *Palpus*: white at base, second and third segments fuscous. *Antenna* bipectinate for two-thirds, apical third setose. *Head*: frons white suffused with fuscous; vertex white tinged with fuscous. *Thorax*: patagium and tegula white, fuscous anteriorly. *Abdomen* white, a fuscous band on each segment, anal segment fuscous, venter white. *Pectus* white. *Legs* white, suffused with fuscous. *Forewing* fuscous; medially a white, elongate, oval patch, lying obliquely across the wing; subterminally a smaller white patch between veins 4 and 6; fringe white tinged with fuscous. *Hindwing* white; bordered with fuscous along costa and termen to near tornus; a short fuscous streak near tornus; fringe white. *Underside*: forewing fuscous; medially a white, elongate patch; white on costa, apical and subterminal areas; hind-wing white; a group of five fuscous spots, forming a broken U-shaped mark, the top touching costa; a fuscous spot on anal vein antemedially; an oblique fuscous streak near tornus.

*Expanse* 26 mm. (*tip to tip* 25 mm.).

♀: Similar to male.

*Expanse* 32 mm. (*tip to tip* 30 mm.).

*Holotype* ♂: 19.iv.1912; *allotype* ♀: 30.iii.1912, Philippine Is., Luzon I., subprov. Benguet, Baguio, 5,000 ft.

Nearest ally: *H. albodecorata* Swinh. (Borneo).

This species is dedicated to Mr. Louis B. Prout, F.E.S., in recognition of the great assistance he has given me in determining the Philippine and Formosan Geometridae.

#### **Hypochrocis zoota** sp.n.

♂: *Palpus*: capucine yellow at base; second segment suffused with mahogany-red; third segment fuscous. *Antenna* bipectinate for five-sixths, apical sixth setose. *Head*: frons mahogany-red; vertex mouse-grey. *Thorax*: patagium and tegula mouse-grey. *Abdomen* mouse-grey, mahogany-red on



basal segments dorsally; venter anterior half capucine yellow, posterior half mouse-grey suffused with mahogany-red. *Pectus* capucine yellow. *Legs*: foreleg coxa capucine yellow; femur capucine yellow, mouse-grey outwardly; tibia and tarsus mouse-grey; other legs coxae and femora capucine yellow; tibiae and tarsi mouse-grey. *Forewing* mouse-grey, sparsely irrorated with fuscous-black; a large patch of bistre suffusion in subterminal area; medially, a wide band edged with fuscous-black, filled with a mixture of mahogany-red and fuscous-black, the proximal edge from costa medially, obliquely excurved to median nervure, angled, along median nervure, angled antemedially, then oblique and way to inner margin subbasally, the distal edge from costa subterminally, excurved to vein 5, along vein 5 for a short distance inwardly, angled, returning toward costa, sharply recurved at base of vein 6, incurved to base of vein 4, straight to below vein 3, inwardly oblique to just below vein 2, angled and longitudinal to a point below base of vein 2, curved and then straight to inner margin medially. *Hindwing* upper half light buff, lower half mouse-grey; a fuscous-black line bordered proximally by mahogany-red, from vein 6, to base of vein 3, incurved to vein 3, outwardly angled, then incurved to inner margin near tornus. *Underside*: forewing basal half capucine yellow, distal half mahogany-red lightly suffused with mouse-grey; hindwing capucine yellow.

*Expanse* 48 mm. (*tip to tip* 42 mm.).

*Holotype* ♂: Philippine Is., Mindanao I., subprov. Lanao, Kolambugan (plains), 30.v.1914.

Nearest ally: *H. binexata* Wlk. (Borneo, Penang).

### ***Hypochrocis flagrans* sp.n.**

♂: *Palpus* capucine yellow suffused with liver-brown; third segment warm blackish brown. *Antenna* bipectinate for five-sixths, apical sixth ciliate. *Head*: frons liver-brown; vertex fawn colour. *Thorax*: patagium fawn colour; tegula fawn colour edged with warm blackish brown posteriorly. *Abdomen* fuscous; a warm blackish brown band basally; a warm blackish brown spot on each of the two basal segments; another on anal segment dorsally; venter capucine yellow. *Pectus* capucine yellow. *Legs*: foreleg, coxa capucine yellow, femur capucine yellow, fuscous outwardly, tibia and tarsus fuscous; other legs fuscous. *Forewing* fawn colour irrorated with fuscous; medially two patches, one on upper half, the other on lower half, suggesting a wide band broken in centre; patch on upper half bordered with warm blackish brown, liver brown just inside border, remainder filled with ground-colour, upper edge along costa, proximal edge from costa medially, inwardly oblique to middle of cell, lower edge downcurved, upcurved, angled, distal edge excurved to vein 7, then straight to costa subterminally; patch on lower half, bordered with warm blackish brown, filled with a mixture of liver-brown and warm blackish brown, proximal edge obliquely excurved from inner margin antemedially, upper edge along median nervure to base of vein 4, distal edge deeply incurved to inner margin subterminally, lower edge along inner margin; a small fuscous patch near apex, and fuscous shading in subterminal area. *Hindwing* upper two-thirds capucine yellow, lower third fawn colour; a short warm blackish brown incurved line edged proximally with liver-brown, from just above vein 2, to inner margin near tornus. *Underside*: forewing basal two-thirds capucine



yellow, distal third suffused with liver-brown; hindwing capucine yellow, tinged with liver-brown along costa and termen, fuscous on inner margin.

*Expanse* 44 mm. (*tip to tip* 40 mm.).

♀: Similar to male, but pectinations of antenna much shorter.

*Expanse* 45 mm. (*tip to tip* 41 mm.).

*Holotype* ♂: 17.v.1914; *allotype* ♀: 25.v.1914; *paratype* ♀: 22.v.1914, Philippine Is., Mindanao I., subprov. Lanao, Kolambugan (plains).

Nearest ally: *H. binexata* Wlk. (Borneo, Penang).

### ***Heteromiza noctuoides* sp.n.**

♂: *Palpus* wood-brown. *Antenna* minutely ciliate. *Head*: frons and vertex wood-brown. *Thorax*: patagium and tegula wood-brown tinged with Natal brown. *Abdomen* wood-brown, two blackish brown spots on basal segment dorsally; venter pinkish buff; anal tuft cartridge-buff. *Pectus* pinkish buff. *Legs*: fore- and midlegs pinkish buff, wood-brown outwardly; hindleg pinkish buff, tibia enlarged. *Forewing* wood-brown, irrorated with fuscous along costa, tinged with Natal brown for two-thirds; cell spot blackish brown; antemedially an excurved, wavy, deep livid-brown line; postmedially a deep livid-brown line, darker where it crosses the veins, giving the appearance of dots along the line, excurved from costa to vein 7, then inwardly oblique to inner margin medially; subterminal area wood-brown; a deep livid-brown patch near apex; another near tornus. *Hindwing* concolorous with forewing, the medial line forming a continuation of postmedial line on forewing. *Underside*: fore- and hindwings cartridge-buff suffused with wood-brown and irrorated with Natal brown; cell spot fuscous; postmedial line Natal brown and excurved on both wings.

*Expanse* 37 mm. (*tip to tip* 35 mm.).

♀: Similar to male.

*Expanse* 40 mm. (*tip to tip* 38 mm.).

*Holotype* ♂: Philippine Is., Luzon I., subprov. Benguet, Baguio, 5,000 ft., 18.vi.1913; *allotype* ♀: subprov. Benguet, Sapiango, 5,800 ft., 15.xii.1912; *paratypes*, 2♂♂: 9 and 14.xii.1912, subprov. Benguet, Pauai, Haight's Place, 7,000 ft.; *paratype* ♂: 21.xii.1912, Luzon I., prov. Rizal, Manila (plains).

Nearest ally: *H. unilinea* Warr.

### ***Ourapteryx rhabdota* sp.n.**

♂: *Palpus* cinnamon. *Antenna* minutely ciliate. *Head*: frons cinnamon, vertex ivory-yellow. *Thorax*: patagium and tegula ivory-yellow. *Abdomen* ivory-yellow above and beneath. *Pectus* ivory-yellow. *Legs*: fore- and midlegs ivory-yellow suffused with cinnamon, speckled with fuscous-black, hindleg ivory-yellow. *Forewing* ivory-yellow; a cinnamon line, outwardly oblique, from costa antemedially to inner margin medially; a short cinnamon streak, outwardly oblique from costa medially to near median nervure; a cinnamon line, slightly incurved, from costa postmedially to inner margin near tornus, fringe cinnamon. *Hindwing* ivory-yellow tinged with cinnamon near tornus; a cinnamon line, outwardly oblique, from base of vein 7 to near tornus; anal vein cinnamon; termen produced to a tail at vein 4; fringe burnt-sienna;



interrupted at vein 5 by an ivory-yellow spot edge with fuscous-black, which continues as a diffuse bar across base of tail to vein 3, with a Brazil red spot at each end; fuscous-black at base of fringe on tail. *Underside*: fore- and hindwings ivory-yellow; fringe cinnamon.

*Expanse* 54 mm. (*tip to tip* 50 mm.).

♀: Similar to male.

*Expanse* 56 mm. (*tip to tip* 50 mm.).

*Holotype* ♂: 24.vii.1913, Philippine Is., Luzon I., subprov. Benguet, Pauai, Haight's Place, 7,000 ft.; *allotype* ♀: 23.v.1912; *paratype* ♂: 23.iv.1912, subprov. Benguet, Baguio, 5,000 ft.

Nearest ally: *O. clara* Butl. (India).

### ***Niphonissa umbrina* sp.n.**

♂: *Palpus* bistre. *Antenna* bipectinate. *Head*: frons and vertex bistre. *Thorax*: patagium and tegula bistre. *Abdomen* bistre sparsely irrorated with fuscous-black, above and beneath. *Pectus* bistre. *Legs* light buff suffused with bistre. *Forewing* glossy bistre irrorated with fuscous-black; a small drab-grey cell spot; antemedial line fuscous-black, faintly marked, outwardly oblique to median nervure, slightly incurved to an anal vein, then inwardly oblique to inner margin; postmedial line fuscous-black, faintly marked, inwardly oblique and slightly incurved. *Hindwing* light buff suffused with bistre, irrorated with fuscous-black on subterminal area; fuscous cell spot; postmedial line fuscous, inwardly oblique, faintly marked. *Underside*: forewing glossy, light buff suffused with bistre; postmedial line faintly marked; hindwing glossy, light buff densely irrorated with fuscous; cell spot fuscous; postmedial and subterminal lines faintly marked.

*Expanse* 48 mm. (*tip to tip* 44 mm.).

*Holotype* ♂: 9.xii.1912; *paratypes* 2 ♂♂: 12.i.1912, 3.xii.1912, Philippine Is., Luzon I., subprov. Benguet, Pauai, Haight's Place, 7,000 ft.

Nearest ally: *N. albiguttulata* Bastelb. (Formosa).

### ***Euchoria pia* sp.n.**

♂: *Palpus* russet. *Antenna* simple. *Head*: frons and vertex russet. *Thorax*: patagium and tegula russet. *Abdomen*: russet; venter pinkish buff tinged with russet. *Pectus* russet. *Legs*: foreleg pinkish buff, russet above; mid- and hindlegs pinkish buff. *Forewing* russet sparsely irrorated with fuscous; costa edged with cartridge-buff; subbasal line chestnut-brown, wavy; antemedial line chestnut-brown, wavy; postmedially two chestnut-brown lines, inwardly oblique, crenulate. *Hindwing* concolorous with forewing; medially two chestnut-brown lines forming continuations of postmedial lines on forewing. *Underside*: fore- and hindwings tawny-olive irrorated with bone-brown; lightly suffused with bone brown on subterminal area; postmedially two bone-brown lines, faintly marked on both wings.

*Expanse* 46 mm. (*tip to tip* 42 mm.).

*Holotype* ♂: Philippine Is., Luzon I., subprov. Benguet, Pauai, Haight's Place, 7,000 ft., 3.xii.1912.

Nearest ally: *E. oenoptila* Prout (New Guinea).



**Elphos lutulenta** sp.n.

♂: *Palpus* warm sepia. *Antenna* bipectinate for seven-eighths, apical eighth ciliate. *Head*: frons warm sepia; vertex clove-brown. *Thorax*: patagium clove-brown; tegula hair-brown. *Abdomen*: hair-brown; venter light buff, lightly suffused with hair-brown. *Pectus* pinkish buff. *Legs*: foreleg pinkish buff, clove-brown above; tibia with a pencil of hair beneath; mid- and hindlegs pinkish buff; tibia of hindleg thickened by a fold on inner side containing hair. *Forewing* tawny-olive irrorated with clove-brown and overlaid with hair-brown; antemedially a clove-brown, crenulate line (points basad), commencing with a small patch on costa; cell spot elongate, edged with clove-brown; a clove-brown patch on costa just above; postmedially a clove-brown, crenulate line (points distad), commencing with a light buff wedge-shaped dash on costa, excurved to vein 4, then inwardly oblique to inner margin medially; subterminally a series of clove-brown spots; interneural clove-brown spots on termen. *Hindwing* concolorous with forewing; antemedially a clove-brown, inwardly oblique line; a clove-brown cell spot; medially a clove-brown, crenulate line (points distad), excurved; postmedially a hair-brown, excurved band; subterminally a wavy, excurved, clove-brown line, bordered by hair-brown proximally; interneural clove-brown spots on termen. *Underside*: forewing cartridge-buff lightly suffused with fuscous for two-thirds; distal third fuscous; a fuscous cell spot, a cartridge-buff patch irrorated with fuscous beyond cell; another at apex; a small spot on termen between veins 3 and 4, and one at tornus; hindwing concolorous with forewing, five cartridge-buff interneural spots in subterminal area, two above vein 6, three below vein 4.

*Expanse* 76 mm. (*tip to tip* 68 mm.).

♀: Differs from the male in the following features: *Antenna* simple. *Forewing* white; tawny-olive irrorated with clove-brown at base; between basal patch and antemedial line irrorated with clove-brown; antemedial line clove-brown, crenulate (points basad); beyond, irrorated with clove-brown, densely below median nervure and mixed with tawny-olive suffusion; an outwardly oblique, clove-brown dash from costa in which is a tawny-olive cell spot; beyond cell white sparsely irrorated with clove-brown, the distal edge of this area outwardly oblique; a patch near tornus densely irrorated with clove-brown and suffused with tawny-olive; postmedial line clove-brown, crenulate (points distad), excurved to vein 4, inwardly oblique to inner margin medially, broken where it passes through white area; apical area tawny-olive irrorated with clove-brown, with a white patch at apex; a small sagittate white mark between veins 3 and 4. *Hindwing* white, irrorated with clove-brown; densely irrorated in a suffusion of tawny-olive, antemedially; lines forming continuations of those on forewing, but not completely crossing the wing; the suffusion and irroration of subterminal area forming streaks at termen. *Underside*: forewing white; basal third suffused with fuscous; distal third fuscous, with three white patches, one at apex, a small one between veins 3 and 4, another at tornus; hindwing white; distal third fuscous; two white patches on termen, one at apex, the other between veins 3 and 4.

*Expanse* 98 mm. (*tip to tip* 83 mm.).

*Holotype* ♂: Philippine Is., Palawan I., Taytay (plains), 26.v.1913; *allotype*



♀: Philippine Is., Mindanao I., subprov. Lanao, Kolambugan (plains), 22.vi. 1914; *paratype* ♀: Palawan I., La Laguna, 12.v.1913.

Nearest ally: *E. hymenaria* Guen. (India, Ceylon).

### **Buzura prinodes** sp.n.

♂: *Palpus* warm buff, blackish-brown above. *Antenna* bipectinate for two-thirds, apical third ciliate. *Head*: frons warm buff, a triangular blackish brown patch near upper edge; vertex white suffused with warm buff. *Thorax*: patagium white suffused with warm buff; tegula white tinged with warm buff. *Abdomen* white tinged with warm buff above and beneath. *Pectus* warm buff. *Legs* light buff, blackish brown outwardly. *Forewing* white tinged with warm buff irrorated with blackish brown; antemedial line blackish brown, commencing with a spot on costa, wavy to anal vein, then inwardly oblique to inner margin; a blackish brown spot on costa medially; postmedial line blackish brown, commencing with a spot on costa, a downcurved sweep to near termen just below vein 6, two small outward curves to vein 4, inwardly along vein 4, angled postmedially, waved to vein 2, excurved to anal vein, excurved to inner margin near tornus; a cluster of scales just beyond points of postmedial between veins 4 and 6, a diffused blackish brown patch in angle of postmedial between veins 3 and 4. *Hindwing* white, tinged with warm buff, irrorated with blackish brown; postmedial line blackish brown, wavy, excurved at vein 4, bordered distally by a concentration of irroration. *Underside*: fore- and hindwings white tinged with warm buff, irrorated with wood-brown; a clove-brown cell spot on each wing; postmedial line showing through from upper side.

*Expanse* 60 mm. (*tip to tip* 55 mm.).

*Holotype* ♂: 5.ix.1912; *paratype* ♂: 5.x.1912, Philippine Is., Luzon I., prov. Rizal, Manila (plains).

Nearest ally: *B. suppressaria* Guen. (China, India, Ceylon, Assam, Burma).

### **Boarmia tella** sp.n.

♂: *Palpus* bone-brown, white at ends of segments. *Antenna* minutely ciliate, shaft white and bone-brown alternately. *Head*: frons and vertex white, a few bone-brown scales between antennae. *Thorax*: patagium bone-brown; tegula white, a bone-brown bar posteriorly. *Abdomen* white mixed with bone-brown above and beneath, a bone-brown bar at each joint. *Pectus* white. *Legs*: fore- and midlegs, alternate patches of white and bone-brown; hindleg white mottled with bone-brown. *Forewing* white; basally a patch of bone-brown; subbasal line bone-brown; area between subbasal and antemedial line warm sepia; antemedial line a bone-brown, excurved to median nervure, excurved to anal vein; medially a bone-brown, wavy line, widened on discocellulars, and enclosing an elongate white spot; area beyond this line, to just beyond postmedial, suffused with warm sepia to tawny-olive; postmedial line a bone-brown, edged distally by white, wavy, incurved to vein 6, excurved to vein 2, incurved to inner margin; in subterminal area, a patch of bone-brown on costa near apex; just below apex a patch of bone-brown and warm sepia; another patch of bone-brown and warm sepia near tornus; through these patches passes a wavy, white, subterminal line. *Hindwing* white sparsely irrorated with warm sepia for a third, distal edge of irrorated area straight;



area beyond this suffused with warm sepia, to just beyond postmedial; postmedial line bone-brown, edge with white distally, crenulate, excurved to vein 2, incurved to inner margin; beyond this a narrow band of cartridge-buff, followed by a light suffusion of warm sepia and tawny-olive, in which is a wavy, white, subterminal line; interneural bone-brown spots on termen. *Underside*: fore- and hindwings white; fuscous patches on costa; fuscous spot on discocellulars; postmedial line fuscous, with some diffuse fuscous subterminally.

*Expanse* 42 mm. (*tip to tip* 38 mm.).

♂: Similar to female, but having antenna bifasciculate, it is much worn and paler in colouring.

*Expanse* 42 mm. (*tip to tip* 38 mm.).

*Holotype* ♀: 23.vi.1913; *allotype* ♂: 8.iii.1912; *paratypes* 2 ♀♀: 9.iii. and 17.iv.1912, Philippine Is., Luzon I., subprov. Benguet, Baguio, 5,000 ft.

Nearest ally: *B. alienaria* Wlk. (Ceylon).

### ***Boarmia pissocneta* sp.n.**

♂: *Palpus* cartridge-buff tinged with fuscous outwardly. *Antenna* with proximal half bipectinate, distal half ciliate. *Head*: frons and vertex cartridge-buff. *Thorax*: patagium and tegula cartridge-buff mixed with fuscous. *Abdomen* light buff; a long tapering fuscous-black patch, almost covering abdomen dorsally; venter and anal tuft light buff. *Pectus* light buff. *Legs* light buff tinged with fuscous; tibiae and tarsi with patches of fuscous and cartridge-buff alternately. *Forewing* cartridge-buff, lightly suffused with fuscous on costa; basal third fuscous to army brown, with a well-marked fovea below median nervure; antemedial line fuscous, almost straight across the wing, forming an edge to basal third; medially a fuscous line, beoming almost obsolescent in centre, excurved to vein 2, obliquely incurved to inner margin; postmedial line fuscous, slightly incurved to below vein 6, excurved to vein 4, excurved to below vein 2, then slightly incurved to inner margin; area beyond fuscous to army brown. *Hindwing* cartridge-buff sparsely irrorated with fuscous, suffused with army brown on distal third; a faint fuscous cell spot; postmedial line fuscous, somewhat broken, inwardly oblique from about vein 6 to inner margin; subterminal line similar and parallel. *Underside*: fore- and hindwings light buff, suffused with warm buff subterminally; with markings corresponding to those on upper side.

*Expanse* 40 mm. (*tip to tip* 37 mm.).

♀: Similar to male, but antenna simple.

*Expanse* 40 mm. (*tip to tip* 37 mm.).

*Holotype* ♂: 1.xii.1912; *allotype* ♀: 30.xi.1912, Philippine Is., Luzon I., subprov. Benguet, Pauai, Haight's Place, 7,000 ft.

Nearest ally: *B. variegata* Moore (India, Assam, Formosa).

### ***Boarmia diadela* sp.n.**

♂: *Palpus* blackish brown; light buff on third segment. *Antenna* bipectinate for two-thirds, apical third ciliate. *Head*: frons and vertex light buff mixed with army brown. *Thorax*: patagium light buff suffused with army brown; tegula light buff mixed with army brown, blackish brown posteriorly; a tuft of army brown mixed with light buff on metathorax. *Abdomen* basal



two-thirds blackish brown, with a light buff band at base; anal third light buff suffused with fawn colour; venter light buff. *Pectus* light buff. *Legs*: fore- and midlegs with coxae light buff tinged with blackish brown; femora, tibiae and tarsi, with alternate patches of light buff and blackish brown; hindleg light buff with some blackish brown on tibia and tarsus. *Forewing* light buff; basal and distal thirds blackish brown to army brown; antemedial fascia consisting of two blackish brown lines, excurved and wavy; medial fascia commencing as a blackish brown patch from costa to median nervure, then army brown, not so well defined, inwardly oblique to inner margin; postmedial fascia, a somewhat broken, dotted, blackish brown line, straight to vein 5, inwardly oblique and wavy to inner margin; subterminal fascia, a thick blackish brown line, edged with light buff distally, straight to vein 5, inward for a short distance, then angled and straight to inner margin; a light buff patch on termen between veins 3 and 4. *Hindwing* light buff suffused with fuscous basally, suffused with fawn colour on distal third, irrorated with blackish brown below basal half of cell; postmedial fascia, a dotted, blackish brown line, excurved to vein 2, incurved to inner margin; subterminal fascia blackish brown, edged distally with light buff, from vein 4, to near tornus; termen blackish brown, crenulate. *Underside*: forewing warm buff with a fuscous patch on costa basally; another medially; subterminal area fuscous, with a warm buff patch on termen between veins 3 and 4; postmedial fascia a series of fuscous spots; hindwing warm buff; a fuscous cell spot; postmedial fascia a series of fuscous dots; a short fuscous streak near tornus.

*Expanse* 38 mm. (*tip to tip* 35 mm.).

♀: Similar to male, but antenna ciliate.

*Expanse* 38 mm. (*tip to tip* 35 mm.).

*Holotype* ♂: 1.xii.1912; *allotype* ♀: 8.xi.1912; *paratypes* ♂: 10.xi.1912; ♀ 30.xi.1912, Philippine Is., Luzon I., subprov. Benguet, Pauai, Haight's Place, 7,000 ft.

Nearest ally: *B. variegata* Moore (India, Assam, Formosa).

### ***Boarmia eupithecioides* sp.n.**

♂: *Palpus* cartridge buff mixed with fuscous. *Antenna* bipectinate for two-thirds, apical third ciliate. *Head*: frons cartridge-buff, a lateral fuscous-black spot, another near base of antenna; vertex cartridge-buff mixed with fuscous. *Thorax*: patagium and tegula cartridge-buff mixed with fuscous. *Abdomen* cartridge-buff suffused with fuscous, a cartridge-buff band at base dorsally; venter and anal tuft light buff. *Pectus* light buff. *Legs*: fore- and midlegs light buff, with alternate patches of light buff and fuscous outwardly; hindleg light buff; tibia enlarged by a fold on inner side containing hair. *Forewing* cartridge-buff, densely irrorated with fuscous; a well-marked fovea below basal half of cell, causing the anal vein to be diverted from its normal position; antemedially a fine fuscous line, faintly marked, excurved; cell spot fuscous; postmedially a fuscous line, wavy, inwardly oblique; subterminally a wavy, cartridge-buff line. *Hindwing* concolorous with forewing; cell spot fuscous; postmedially a fuscous line, excurved to vein 4, incurved to inner margin; subterminally a short, wavy, cartridge-buff line, from vein 4 to tornus; inter-neural fuscous spots on termen. *Underside*: forewing cartridge-buff lightly



suffused with fuscous; cell spot fuscous; hindwing cartridge-buff densely irrorated with fuscous; cell spot fuscous.

*Expanse* 26 mm. (*tip to tip* 25 mm.).

*Holotype* ♂: 15.xii.1912; *paratype* ♂: 16.xii.1912, Philippine Is., Luzon I., subprov. Benguet, Sapiangao, 5,800 ft.

Nearest ally: *B. nubeculosa* Bastelb. (Formosa).

### *Cleora lipotera* sp.n.

♂: *Palpus* cartridge-buff mixed with fuscous. *Antenna* bipectinate, for two-thirds, apical third ciliate. *Head*: frons and vertex light buff mixed with fuscous; a transverse wood-brown bar between bases of antennae; occiput cartridge-buff. *Thorax*: patagium wood-brown tinged with fuscous; tegula fuscous. *Abdomen* cartridge-buff mixed with fuscous; venter cartridge-buff; anal tuft pinkish buff. *Pectus* light buff. *Legs*: foreleg light buff mixed with fuscous above; other legs light buff. *Forewing* wood-brown irrorated with fuscous; antemedial line fuscous, inwardly oblique; medial line fuscous, excurved to median nervure, excurved to inner margin; a patch of raised scales on discocellulars; postmedial line fuscous, crenulate (points distad), slightly excurved to vein 4, then inwardly oblique to inner margin; below apex a patch of fuscous suffusion. *Hindwing* concolorous with forewing; a wide medial band suffused with fuscous, proximal edge (near which is a small patch of raised scales on discocellulars) inwardly oblique, distal edge crenulate (points distad), excurved to vein 3, incurved to inner margin. *Underside*: forewing cartridge-buff; a fuscous patch on discocellulars; three fuscous spots on costa antemedially, medially, and postmedially; tinged with fuscous in apical area; termen fuscous; hindwing cartridge-buff.

*Expanse* 38 mm. (*tip to tip* 35 mm.).

♀: *Palpus* benzo-brown mixed with whitish. *Antenna* minutely ciliate. *Head*: frons and vertex benzo-brown mixed with whitish. *Thorax*: patagium and tegula benzo-brown mixed with whitish. *Abdomen* benzo-brown; venter light buff. *Pectus* light buff. *Legs* benzo-brown mixed with whitish. *Forewing* benzo-brown finely irrorated with fuscous; with some whitish in subterminal area; antemedial line fuscous, inwardly oblique, bordered by a cinnamon-drab shade proximally; medial line fuscous, wavy, slightly excurved; postmedial line fuscous, crenulate (points distad), bordered by a cinnamon-drab shade distally, straight to vein 5, obliquely incurved to inner margin; a fuscous patch on termen below apex; subterminally a whitish, wavy line, bordered proximally by fuscous from costa to vein 5; interneural fuscous spots on termen. *Hindwing* concolorous with forewing; medial and postmedial lines forming continuations of those on forewing; some white at tornus. *Underside*: forewing white lightly suffused with fuscous; cell spot fuscous; postmedial line fuscous; fuscous on subterminal area gradually fading toward tornus, with a whitish patch at apex, another on termen at vein 3; hindwing white tinged with fuscous; cell spot and subterminal lines fuscous.

*Expanse* 45 mm. (*tip to tip* 43 mm.).

*Holotype* ♂: 7.xi.1912; *allotype* ♀: 13.xii.1912; *paratypes* 4♂♂: 7, 8, 11.xi, 5.xii.1912, 1♀: 7.xi.1912, Philippine Is., Luzon I., subprov. Benguet, Pauai, Haight's Place, 7,000 ft.

Nearest ally: *C. leucophaea* Butl.



This species appears to vary from a more or less uniform colour to a very pale form with dark markings.

**Abraxas semiusta** sp.n.

♂: *Palpus* ochraceous-buff, bone-brown on third segment. *Antenna* fasciculate. *Head*: frons and vertex bone-brown; with some white glossy scales between bases of antennae. *Thorax*: patagium ochraceous-buff, white posteriorly; tegula ochraceous-buff, bone-brown mixed with white posteriorly; rest of thorax bone-brown mixed with white. *Abdomen* ochraceous-buff, spotted with bone-brown above and beneath; a Dresden brown band at base dorsally. *Pectus* ochraceous-buff. *Legs* coxae ochraceous-buff, rest of legs fuscous. *Forewing* white; a bone-brown to Dresden brown basal patch, in which are some white glossy scales, distal edge excurved; medially a large light mouse-grey patch on costa, with a white tooth cutting into the proximal edge; below, an elongate, broken, light mouse-grey patch, from median nervure to inner margin: postmedially a light mouse-grey patch on costa, continuing as an irregular border round apex and on termen; from patch on costa, an excurved series of light mouse-grey spots, terminating in a large patch of bone-brown to Dresden brown on inner margin, with white glossy scales in centre. *Hindwing* white; two bone-brown bars basally; medially two light mouse-grey spots, one on costa, the other on inner margin; postmedially a light mouse-grey patch on costa, with a small spot each side; and a large patch on inner margin near tornus, bone-brown to Dresden brown, with white glossy scales in centre; an irregular light mouse-grey border at termen. *Underside*: fore- and hindwings white; markings hair-brown, similar in shape to upperside.

*Expanse* 42 mm. (*tip to tip* 38 mm.).

*Holotype* ♂: Philippine Is., Luzon I., subprov. Benguet, Baguio, Trinidad, 4,000 ft., 30.iii.1912.

Nearest ally: *A. intermedia* Warr. (India, Assam, Burma, S. Shan States).

**Abraxas cyclobalia** sp.n.

♂: *Palpus*, white suffused with sepia. *Antenna* minutely ciliate. *Head*: frons upper half sepia, lower half white, with a wedge-shaped dash at middle extending into upper half; vertex cinnamon-buff with a lateral sepia spot. *Thorax*: patagium, tegula and rest of thorax cinnamon-buff spotted with sepia. *Abdomen* cinnamon-buff spotted with sepia above and beneath, suffused with white at base dorsally. *Pectus* cinnamon-buff. *Legs*: foreleg, coxa cinnamon-buff with a sepia spot, rest of leg suffused with sepia outwardly; midleg, coxa and femur cinnamon-buff, tibia and tarsus suffused with sepia; hindleg, coxa and femur cinnamon-buff, tibia cinnamon-buff with two sepia patches, tarsus sepia. *Forewing* white; sepia on basal half of costa, some sepia spots basally; antemedial fascia sepia, a series of spots joined together, obliquely incurved; medially a round sepia patch in distal end of cell, connected to costa by a short bar; postmedially a series of sepia spots and patches, excurved to vein 2, then inwardly oblique and double to inner margin; subterminally a series of sepia spots and patches; a number of sepia spots merged into one another, forming a wide border round apex; a cluster of sepia spots near tornus. *Hindwing* concolorous with forewing; a spot on inner margin antemedially; medially



a series of spots, obliquely across the wing; postmedially an excurved series of spots; a series of spots subterminally, and another terminally. *Underside*: fore- and hindwings, similar to upperside.

*Expanse* 40 mm. (*tip to tip* 37 mm.).

♀: Similar to male.

*Expanse* 48 mm. (*tip to tip* 43 mm.).

*Holotype* ♂: xii.1912; *allotype* ♀: 29.iii.1912, Philippine Is., Luzon I., subprov. Benguet, Baguio, Trinidad, 4,800 ft.

Nearest ally: *A. invasata* Warr. (Brit. N. Borneo).

### ***Abraxas gephyra* sp.n.**

♀: *Palpus* cinnamon-buff basally, olive-brown apically. *Antenna* minutely ciliate. *Head*: frons cinnamon-buff; vertex bone-brown, surrounded by cinnamon-buff. *Thorax*: patagium bone-brown; tegula bone-brown, cinnamon-buff in middle; rest of thorax cinnamon-buff spotted with bone-brown. *Abdomen* cinnamon-buff spotted with bone-brown above and beneath. *Pectus* cinnamon-buff. *Legs*: foreleg, coxa cinnamon-buff spotted with bone-brown, remainder of leg olive-brown; other legs olive-brown. *Forewing* white; an olive-brown border extending from base, along costa, round apex, and on termen to tornus; in this border at the base are five spots, four white, and one cinnamon-buff; an olive-brown band, from costa subterminally to tornus, crossed by an olive-brown band from costa postmedially, outwardly oblique to base of vein 4, angled, and along vein 4 to termen; two short olive-brown bars, connecting the downward band with termen, one on vein 3, the other on vein 2. *Hindwing* white; a terminal olive-brown band, in which is a series of five white spots. *Underside*: fore- and hindwings, similar to upperside.

*Expanse* 44 mm. (*tip to tip* 40 mm.).

*Holotype* ♀: Philippine Is., Luzon I., subprov. Benguet, Baguio, 5,000 ft., 10.iii.1912.

Nearest ally: *A. punctifera* Wlk. (Burma, Timor).

### ***Craspedosis picoides* sp.n.**

♀: *Palpus* mouse-grey. *Antenna* minutely ciliate. *Head*: frons and vertex mouse-grey. *Thorax*: patagium and tegula mouse-grey. *Abdomen* cinnamon-buff above and beneath, basal segment mouse-grey. *Pectus* cartridge-buff tinged with mouse-grey. *Legs* fuscous. *Forewing* mouse-grey; a fovea below base of cell; postmedially a large white patch lying obliquely across wing, its upper edge parallel to costa, its proximal edge outwardly oblique to below vein 2, angled, and continued outwardly toward tornus, its distal edge outwardly oblique to vein 5, then excurved to near tornus, where it joins proximal edge forming a blunt point; subterminally a faint pale mouse-grey line. *Hindwing* white, mouse-grey at base; a wide border of mouse-grey subterminally, in which is a faint pale mouse-grey subterminal line. *Underside*: fore- and hindwings similar to upperside.

*Expanse* 54 mm. (*tip to tip* 50 mm.).

*Holotype* ♀: Philippine Is., Mindanao I., subprov. Lanao, Kolambugan (plains), 25.v.1914.

Nearest ally: *C. leucosticta* Warr. (Queensland).



## SUBFAMILY LARENTIINAE

**Poecilasthenia prouti** sp.n.

♂: *Palpus* wood-brown. *Antenna* minutely ciliate, white on basal half of shaft. *Head*: frons wood-brown; vertex white mixed with glaucous-green. *Thorax*: patagium and tegula, white mixed with glaucous-green. *Abdomen* white mixed with glaucous-green; venter white. *Pectus* white. *Legs*: fore- and midlegs white, wood-brown outwardly; hindleg white. *Forewing* white irrorated with glaucous-green, translucent; antemedially a faintly marked, glaucous-green line, inwardly oblique; postmedially a band of glaucous-green, inwardly oblique, slightly wavy; cell spot glaucous-green; subterminally three fine glaucous-green, wavy lines. *Hindwing* concolorous with forewing; lines and markings forming continuations of those on forewing. *Underside*: fore- and hindwings opalescent, glossy.

*Expanse* 28 mm. (*tip to tip* 24 mm.).

♀: Similar to male.

*Expanse* 30 mm. (*tip to tip* 28 mm.).

*Holotype* ♂: 1.xii.1912; *allotype* ♀: 19.xii.1912; *paratype* ♀: 9.xii.1912, Philippine Is., Luzon I., subprov. Benguet, Pauai, Haight's Place, 7,000 ft.

Nearest ally: *P. thalassina* Meyr. (Australia).

**Hastina plumbipicta** sp.n.

♀: *Palpus* light buff suffused with ochraceous-orange. *Antenna* ciliate; shaft, light buff ringed with ochraceous-orange. *Head*: frons light buff, a wide band of ochraceous-orange suffusion across middle; vertex light buff. *Thorax*: patagium light buff tinged with ochraceous-orange; tegula light buff with a suffusion of fuscous proximally. *Abdomen* fuscous, light buff mixed with ochraceous-orange on basal segment dorsally; venter light buff. *Pectus* light buff. *Legs*: foreleg light buff, bone-brown above; mid- and hindlegs light buff. *Forewing* baryta-yellow; bone-brown to ochraceous-orange along costa, gradually widening from base forming a triangular patch on basal half of cell; again increasing in width medially, where a wide fascia is thrown off, well-defined to base of vein 3, then ill-defined and broken; a large bone-brown patch suffused with neutral grey, edged with ochraceous-orange in apical area, with three cartridge-buff points on costa; a small bone-brown patch suffused with neutral grey, edged with ochraceous-orange at tornus; termen ochraceous-orange; fringe baryta-yellow. *Hindwing* basal third baryta-yellow, distal two-thirds bone-brown suffused with neutral grey, the dividing line between the two colours, outwardly oblique from costa medially to vein 7, sharply excurved, returning along vein 6 to discocellulars, angled and inwardly oblique to near median nervure, inwardly, parallel with median nervure, angled sub-basally, then oblique to inner margin; cell spot blackish brown; medially, some baryta-yellow spots surrounded by ochraceous-orange; subterminal line bone-brown; termen deeply excised between veins 5 and 6. *Underside*: forewing light buff; wood-brown on costa, a bone-brown patch in apical area; a bone-brown spot at tornus; termen baryta-yellow; hindwing basal half light buff, distal half bone-brown, termen light buff.

*Expanse* 30 mm. (*tip to tip* 27 mm.).



*Holotype* ♀: Philippine Is., Luzon I., subprov. Benguet, Pauai, Haight's Place, 7,000 ft., 7.xi.1912.

Nearest ally: *H. ornata* Moore (Sikhim).

### **Sauris nigrilinearia** Leech.

♂: *Palpus* dusky brown. *Head*: frons dusky brown; vertex dark olive-buff. *Thorax*: patagium and tegula dark olive-buff. *Abdomen* dark olive-buff; venter cartridge-buff. *Pectus* cartridge-buff. *Legs*: foreleg, coxa and femur dark olive-buff; tibia and tarsus tinged with dusky brown; other legs cartridge-buff tinged with dusky brown. *Forewing* dark olive-buff; subbasal fascia a dusky brown line, outwardly oblique to subcosta, slightly incurved to inner margin; medially a dusky brown patch on costa, from which runs an ill-defined line, dusky brown to olive-citrine, excurved to lower angle of cell, incurved at vein 2, slightly oblique to inner margin; postmedial fascia consisting of two dusky brown to olive-citrine, wavy lines, excurved to vein 2, then straight to inner margin; subterminal fascia a strongly marked dusky brown line, slightly excurved to vein 2, incurved to tornus, bordered distally by a fine dusky brown line; terminal line dusky brown; the space between subterminal and terminal lines, below vein 5, suffused with dusky brown; a dusky brown spot at the end of each vein on termen. *Hindwing* vinaceous-buff; a large fovea on lower half of wing, extending beyond the end of cell. *Underside*: fore- and hindwings wood brown.

*Expanse* 28 mm. (*tip to tip* 27 mm.).

*Neallotype* ♂: 5.vii.1895; *paratype* ♂: 4.vii.1895, Japan, Kyushu I., prov. Satsuma, Kagoshima.

Nearest ally: *S. infirma* Swinh. (Pulo Laut, Singapore).

### **Steirophora dialitha** sp.n.

♂: *Palpus* light yellowish olive. *Head*: frons and vertex light yellowish olive. *Thorax*: patagium and tegula light yellowish olive; rest of thorax light yellowish olive with sooty black spots laterally. *Abdomen* light buff suffused with olive-brown above and beneath; olive-ochre on basal and anal segments; anal tuft olive-ochre with two sooty black spots. *Pectus* olive-ochre. *Legs*: fore- and midlegs, coxae light yellowish olive, femora suffused with sooty black, tibiae and tarsi sooty black with light buff patches; hindleg olive-brown, light buff above on tibia, and at joints on tarsus. *Forewing* light yellowish olive; fasciae broken up by light yellowish-olive streaks radiating from base to termen; a sooty black spot at base; subbasal fascia sooty black, excurved, incurved; antemedial fascia sooty black, slightly excurved; postmedial fascia, a wide sooty black band edged with a fine white line, another through middle, passing close to a sooty black cell spot; proximal edge slightly waved; distal edge excurved to vein 5, excurved to vein 3, incurved to inner margin; subterminal fascia sooty black, edged with white distally, slightly excurved to vein 2, incurved to inner margin; sagittate sooty black marks on termen at ends of veins (points distad). *Hindwing* light buff lightly suffused with olive-brown; olive-brown on discocellulars; a faint light buff postmedial line. *Underside*: forewing olive-brown; the white lines showing through from upperside; hindwing similar to upperside.



*Expanse* 52 mm. (*tip to tip* 50 mm.).

♀: Similar to male.

*Expanse* 49 mm. (*tip to tip* 45 mm.).

*Holotype* ♂: Philippine Is., Luzon I., subprov. Benguet, Pauai, Haight's Place, 7,000 ft., 28.vii.1913; *allotype* ♀: subprov. Benguet, Baguio, 5,000 ft., xii.1914.

Nearest ally: *S. punctatissima* Warr. (Bonthain).

### ***Collix elachista* sp.n.**

♂: *Palpus* light buff mixed with fuscous. *Antenna* minutely ciliate. *Head*: frons fuscous; a wide band of light buff across middle; vertex light buff mixed with fuscous. *Thorax*: patagium and tegula light buff mixed with fuscous. *Abdomen* light buff suffused with fuscous; venter light buff. *Pectus* light buff. *Legs* light buff, fuscous suffusion at joints of tarsus of foreleg. *Forewing* light buff densely irrorated with fuscous; medially a fuscous line, slightly oblique, crossing fuscous cell spot, then obliquely incurved to inner margin; postmedially a crenulate, fuscous line, edged with light buff distally, excurved to vein 2, obliquely incurved to inner margin; subterminally a fascia of sagittate fuscous marks (points basad), edged with light buff distally, excurved to anal vein, straight to inner margin; between veins 3 and 4, a wedge-shaped fuscous patch, base on subterminal fascia, point cutting through postmedial fascia; subterminal area fuscous, in which is a terminal line of light buff spots. *Hindwing* concolorous with forewing; lines and fasciae forming continuations of those on forewing. *Underside*: fore- and hindwings white; veins ochraceous-buff as far as subterminal area, where they are fuscous; a fuscous cell spot; a series of fuscous spots postmedially.

*Expanse* 24 mm. (*tip to tip* 21 mm.).

♀: similar to male.

*Expanse* 25 mm. (*tip to tip* 22 mm.).

*Holotype* ♂: 7.ii.1914; *allotype* ♀: 3.i.1914, Philippine Is., Luzon I., prov. Rizal, Montalban.

Nearest ally: *C. flavovenata* Leech (China).

### ***Euphyia litterata* sp.n.**

♂: *Palpus* light buff, some bistre outwardly. *Antenna* fasciculate. *Head*: frons and vertex light buff mixed with bistre; a bistre streak from vertex, between antennae, and half-way down frons. *Thorax*: patagium and tegula light buff mixed with bistre. *Abdomen* snuff brown; laterally, a bistre streak; dorsally, a longitudinal light buff line, and two shorter light buff lines crossing it at base; basal segment bistre; venter light buff mixed with snuff brown. *Pectus* light buff. *Legs* bistre, with light buff patches. *Forewing* bistre; divided into patches by cartridge-buff, in which is a suffusion of snuff-brown; the lighter coloured portion forms a grotesquely shaped letter K; basal patch edged with cartridge-buff, outwardly oblique to middle of cell, angled, then straight to below median nervure, angled, and inwardly oblique to inner margin; antemedially three small patches, placed obliquely beyond basal patch, one on costa, another on median nervure, the third and larger patch, in which are two small spots, on anal vein and touching inner margin medially; postmedially a large patch,



the upper edge on costa, the lower edge almost reaching vein 2, proximal edge from costa medially, outwardly oblique, slightly curved to base of vein 3, down-curved, almost touching vein 2, then sharply excurved returning to vein 3; distal edge straight from costa to vein 7, then widely excurved to vein 3, joining proximal edge in an inward point; a triangular patch on costa near apex, the point touching vein 6, divided by a cartridge-buff line; three bistre patches on termen, bordered proximally by cartridge-buff, incurved to vein 3, incurved to vein 2, again incurved to tornus; a fine terminal line of cartridge-buff; and a cartridge-buff patch in fringe between veins 3 and 4. *Hindwing* cartridge-buff lightly suffused with snuff-brown; postmedial line faintly marked; termen bistre. *Underside*: forewing light buff irrorated with bistre; a bistre cell spot; postmedially two bistre lines from costa as far as vein 3, with a suffusion of bistre between them; hindwing light buff irrorated with bistre; cell spot bistre; medial and postmedial lines bistre.

*Expanse* 46 mm. (*tip to tip* 42 mm.).

*Holotype* ♂: 1.xii.1912; *paratypes* 3 ♂♂: 1, 2.xii.1912, 17.vii.1913, Philippine Is., Luzon I., subprov. Benguet, Pauai, Haight's Place, 7,000 ft.

Nearest ally: *E. melancholica* Butl. (Formosa, Japan).

### **Euphyia phrice** sp.n.

♂: *Palpus* white mixed with sepia. *Antenna* ciliate. *Head*: frons and vertex white; a wedge-shaped, sepia patch on vertex, the point between antennae. *Thorax*: patagium sepia, edged with white; tegula sepia, rest of thorax white mixed with sepia. *Abdomen* sepia; a cartridge-buff, longitudinal stripe dorsally, with a narrow cartridge-buff band crossing it at base; venter cartridge-buff mixed with sepia. *Pectus* cartridge-buff. *Legs* light buff suffused with sepia. *Forewing* sepia; subbasal fascia a fine, white, wavy line; antemedial fascia a white, excurved, wavy line; an outwardly oblique, white line from costa antemedially to inner margin subterminally; a white line from inner margin antemedially, rising to near median nervure, angled, and running longitudinally to subterminal fascia at vein 2, forming a patch where it crosses the oblique line previously mentioned; subterminal fascia consisting of four white lines, the proximal line straight to vein 2, where it is angled, then slightly oblique to tornus; the two inner lines wavy; the distal line, incurved from apex to vein 3, excurved to vein 2. *Hindwing* white, irrorated with sepia on lower half; postmedial fascia a sepia, crenulate (points basad), excurved line; subterminal area suffused with sepia, in which is a white subterminal line. *Underside*: fore- and hindwings white, glossy; markings showing through from upperside.

*Expanse* 43 mm. (*tip to tip* 40 mm.).

*Holotype* ♂: Formosa, Karapin, x.1908.

Nearest ally: *C. rectilinea* Warr.

### **Euphyia euchora** sp.n.

♂: *Palpus* warm sepia. *Antenna* fasciculate. *Head*: frons and vertex warm sepia mixed with light buff. *Thorax*: patagium and tegula warm sepia mixed with light buff. *Abdomen* warm sepia above and beneath, light buff laterally. *Pectus* light buff mixed with warm sepia. *Legs*: coxae and femora



light buff speckled with warm sepia ; tibiae and tarsi warm sepia mixed with light buff. *Forewing* cinnamon-brown ; warm sepia basally, distal edge light buff, from costa subbasally, obliquely excurved, wavy ; a wide warm sepia medial band, edged with light buff ; antemedial edge, outwardly oblique from costa to subcosta, wavy to inner margin ; postmedial edge slightly waved to below vein 4, inwardly oblique to vein 2, excurved to anal vein, straight to inner margin ; a short cartridge-buff, outwardly oblique dash, from costa near apex ; below apex on termen, two blackish brown patches ; a white spot in a suffusion of warm sepia at tornus. *Hindwing* light buff, lightly suffused with warm sepia ; a faintly marked, light buff postmedial line. *Underside* : fore- and hindwings cinnamon-brown ; suffused with bone brown on basal two-thirds.

*Expanse* 46 mm. (*tip to tip* 40 mm.).

♀: Similar to male, but antenna ciliate.

*Expanse* 40 mm. (*tip to tip* 35 mm.).

*Holotype* ♂: 26.xi.1912 ; *paratypes* 4♂♂: 13, 14, 22.xi., 3.xii.1912, Philippine Is., Luzon I., subprov. Benguet, Pauai, Haight's Place, 7,000 ft. ; *allotype* ♀: 21.vi.1913, subprov. Benguet, Baguio.

Nearest ally: *E. propinquata* Koll.

### ***Chloroclystis obscura* sp.n.**

♀: *Palpus* cartridge-buff mixed with fuscous. *Antenna* ciliate. *Head* : frons and vertex cartridge-buff mixed with fuscous. *Thorax* : patagium and tegula cartridge-buff mixed with fuscous. *Abdomen* cartridge-buff suffused with fuscous ; venter cartridge-buff. *Pectus* cartridge-buff. *Legs* cartridge-buff, tinged with fuscous outwardly. *Forewing* cartridge-buff suffused with fuscous ; antemedial fascia, consisting of two cartridge-buff lines, outwardly oblique to subcosta, inwardly oblique to inner margin ; medially a faintly marked, cartridge-buff line, parallel with antemedial fascia ; cell spot fuscous ; postmedial fascia consisting of two cartridge-buff lines, outwardly oblique to vein 7, incurved to vein 4, inwardly oblique and wavy to inner margin ; subterminal area fuscous, in which is a wavy, cartridge-buff line. *Hindwing* concolorous with forewing, lines and markings forming continuations of those on forewing. *Underside* : forewing cartridge-buff tinged with fuscous ; cell spot fuscous ; subbasal, antemedial, and postmedial lines fuscous ; subterminal area suffused with fuscous ; hindwing cartridge-buff, cell spot and postmedial line fuscous ; subterminal band fuscous.

*Expanse* 25 mm. (*tip to tip* 22 mm.).

*Holotype* ♀: 22.v.1900, Japan, Honshu I., prov. Yamato, Yoshino.

Nearest ally: *C. dentatissima* Warr.

### ***Chloroclystis tortuosa* sp.n.**

♂: *Palpus* pinkish buff. *Antenna* ciliate. *Head* : frons and vertex pinkish buff. *Thorax* : patagium and tegula pinkish buff. *Abdomen* pinkish buff ; venter cartridge-buff. *Pectus* cartridge-buff. *Legs* : foreleg pinkish buff, suffused with fuscous above ; other legs pinkish buff. *Forewing* basal half cartridge-buff, distal edge commencing with a fuscous spot on costa, obliquely excurved from costa antemedially to inner margin medially ; distal half cinnamon-drab medially to fuscous subterminally ; postmedial line cartridge-buff,



excurved to vein 5, excurved to anal vein; subterminal line cartridge-buff, wavy. *Hindwing* cartridge-buff; postmedially a series of fuscous dots; termen fuscous; fringe cartridge-buff. *Underside*: forewing glossy; cartridge-buff suffused with cinnamon-drab; fuscous on basal half of costa; cell spot and postmedial line faintly marked; termen fuscous; hindwing glossy, cartridge-buff; cell spot and postmedial line faintly marked.

*Expanse* 21 mm. (*tip to tip* 18 mm.).

*Holotype* ♂: 15.xi.1912, Philippine Is., Luzon I., subprov. Benguet, Pauai, Haight's Place, 7,000 ft.

Nearest ally: *C. inaequata* Warr.

### ***Chloroclystis mira* sp.n.**

♀: *Palpus* light yellowish olive. *Antenna* minutely ciliate. *Head*: frons and vertex light yellowish olive. *Thorax*: patagium light yellowish olive; tegula light yellowish olive with a blackish brown spot. *Abdomen* light yellowish olive, blackish brown on basal and anal segments, and some blackish brown scales at joints between other segments dorsally; venter cartridge-buff, tinged with light yellowish olive. *Pectus* light yellowish olive. *Legs*: foreleg, coxa and femur light yellowish olive with blackish brown above; tibia and tarsus blackish brown, light yellowish olive at joints; midleg light yellowish olive mixed with blackish brown outwardly; hindleg cartridge-buff tinged with light yellowish olive. *Forewing* light yellowish olive to yellowish olive, blackish brown on costa; antemedial fascia a band of cartridge-buff straight across wing, bordered by a suffusion of blackish brown; postmedial fascia a cartridge-buff band, with blackish brown on veins along each edge, straight to vein 7, outwardly angled, then wavy and inwardly oblique to inner margin; a wide suffusion of wood-brown from lower half of antemedial fascia, narrowing to space between veins 4 and 6 at discocellulars, continuing to postmedial fascia and beyond. *Hindwing* cartridge-buff. *Underside*: forewing glossy, cartridge-buff lightly suffused with light yellowish olive, more deeply on costa; fascia marked to median nervure by fuscous irroration; hindwing glossy cartridge-buff lightly suffused with light yellowish olive; fascia marked by fuscous irroration.

*Expanse* 28 mm. (*tip to tip* 26 mm.).

*Holotype* ♀: 12.xi.1912; *paratype* ♀: 15.xi.1912, Philippine Is., Luzon I., subprov. Benguet, Pauai, Haight's Place, 7,000 ft.; *paratype* ♀: 3.vi.1912, subprov. Benguet, Baguio, 5,000 ft.

Nearest ally: *C. blanda* Bastelb.

### ***Chloroclystis hypopyrrha* sp.n.**

♂: *Palpus* cartridge-buff. *Antenna* ciliate. *Head*: frons and vertex cartridge-buff. *Thorax*: patagium cartridge-buff; tegula Lincoln green. *Abdomen* cartridge-buff, warm sepia on two basal segments dorsally; venter cartridge-buff. *Pectus* cartridge-buff. *Legs* cartridge-buff, warm sepia patches on tibia and tarsus of foreleg. *Forewing* Lincoln green; some warm sepia on costa basally; medially a wide, warm sepia band; proximal edge, excurved to median nervure, inwardly oblique to inner margin; distal edge wavy and excurved; subterminal line white, crenulate, passing through three patches of



warm sepia, one on costa, another between veins 4 and 6, the third at tornus ; termen warm sepia ; fringe Lincoln green mixed with warm sepia. *Hindwing* concolorous with forewing ; lines and markings forming continuations of those on forewing. *Underside* : forewing cartridge-buff lightly suffused with warm sepia ; cell spot and postmedial fascia warm sepia ; subterminal area suffused with warm sepia ; hindwing cartridge-buff ; cell spot and postmedial fascia warm sepia.

*Expanse* 22 mm. (*tip to tip* 20 mm.).

♀ : Similar to male.

*Expanse* 24 mm. (*tip to tip* 22 mm.).

*Holotype* ♂ : 20.vi.1901 ; *allotype* ♀ : 16.vii.1901 ; *paratypes* : 1 ♂ 9.vi, 1 ♂ 3.vii, 2 ♂♂ 1.ix, 1 ♂ 20.x.1899 ; 1 ♂ 27.v.1900 ; 1 ♀ 9.ix, 1 ♀ 1.x.1899 ; 1 ♀ 17.vi, 1 ♀ 19.vi.1901 ; Japan, Honshu I., prov. Yamato, Yoshino.

Nearest ally : *C. rectangulata* Linn.

### ***Eupithecia dolia* sp.n.**

♂ : *Palpus* Verona brown. *Antenna* minutely ciliate. *Head* : frons white, Verona brown on lower half ; vertex white. *Thorax* : patagium and tegula white ; rest of thorax with a white Verona brown spot in middle. *Abdomen* Verona brown, basal segment white ; venter cartridge-buff. *Pectus* white. *Legs* : Fore- and midlegs cartridge-buff, Verona brown above ; hindleg cartridge-buff. *Forewing* Verona brown ; white at base below median nervure ; sub-basal line white, wavy ; antemedial line Verona brown defined by white, wavy to median nervure, below, ill-defined and almost obsolescent ; cell spot bone-brown in a white patch which reaches costa ; postmedially two white lines, the distal one commencing with a patch on costa, excurved and wavy to vein 4, below, ill-defined and almost obsolescent ; subterminally a series of bone-brown spots, edged distally with white ; a white spot at tornus. *Hindwing* white ; partial fasciae of Verona brown, subbasally, medially and postmedially, from median nervure to inner margin. *Underside* : forewing light buff tinged with Verona brown ; markings showing through from upperside ; hindwing cartridge-buff ; antemedial, medial and postmedial fasciae faintly marked ; subterminal area tinged with Verona brown.

*Expanse* 24 mm. (*tip to tip* 23 mm.).

*Holotype* ♂ : 20.xi.1912, Philippine Is., Luzon I., subprov. Benguet, Pauai, Haight's Place, 7,000 ft.

Nearest ally : *E. sinicaria* Leech.

(Colours from Ridgway's *Color Standards and Color Nomenclature*, 1912. Colour terms in italics are not Ridgway's.)

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1929. "Descriptions of new species of Japanese, Formosan and Philippine Geometridae." *Novitates zoologicae : a journal of zoology in connection with the Tring Museum* 35, 105–131. <https://doi.org/10.5962/bhl.part.10819>.

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