

crossing the wings a little beyond the cell and curving round it; two spots and a streak in the cell; one spot above and three spots below the cell nearer the base.

Expanse of wings $1\frac{1}{4}$ inch.

Hab. Fergusson Island (*Meek*).

Nearest to *H. absimilis*; on the underside it is quite distinct from that species.

XXIII.—On *Lepidoptera Heterocera* from China, Japan, and Corea. By JOHN HENRY LEECH, B.A., F.L.S., F.Z.S., &c.*

[Plates VI. & VII.]

THE following paper deals with species of *Heterocera* belonging to the families *Epicopiidæ*, *Uraniidæ*, *Epiplemidæ*, and *Geometridæ*. As, however, there are about nine hundred species in the latter family recorded from the region under consideration, it seemed advisable to divide the paper into two parts. In the present instalment, therefore, only the *Boarmiinae* subfamily of *Geometridæ* is referred to.

The arrangement of the list is based on the system of classification adopted by Sir George Hampson, Bart., in his work on Indian *Heterocera* ('Fauna of British India,' Moths, iii.), but in some instances Mr. Meyrick's revision of the *Geometrina* of the European fauna (*Trans. Ent. Soc. Lond.* 1892, pp. 53–140) has been followed.

Over one hundred and fifty of the species here enumerated have not, so far as I am aware, been previously described.

Family *Epicopiidæ*.

Genus *EPICOPIA*.

(*Westw. Arc. Ent. i. p. 17 (1845).*)

Epicopia mencia.

Epicopeia mencia, Moore, *Proc. Zool. Soc. Lond.* 1874, p. 578, pl. lxxvii. fig. 8.

I received specimens from Chang-yang, Kiukiang, Omei-shan, and Moupin, taken in June and July.

Hab. Central, Eastern, and Western China.

* [We are indebted to the Author for the two Plates and also for contributing largely towards the cost of the extra sheets of letterpress.]

Epicopia Hainesii.

Epicopeia Hainesii, Holl. Trans. Amer. Ent. Soc. xvi. p. 72 (Jan. 1889).

Epicopeia simulans, Leech, Proc. Zool. Soc. Lond. 1888, p. 611, pl. xxxi. fig. 1 (April 1889).

There were specimens from Oiwake and Hakone in Pryer's collection. My native collector captured examples at Hakodate in June and July, and I have received the species from Ichang.

Var. *sinicaria*.

Differs from the type in being fawn-coloured and in the absence of first crimson marginal spot on secondaries.

Five female specimens from Ichang, taken in June.

Distribution. Japan; Central China.

Var. *sinicaria* appears to mimic the pale female form of *Papilio menci*us.

Epicopia philenora.

Epicopeia philenora, Westw. Arc. Ent. i. p. 19, pl. v. fig. 2 (1843).

Epicopeia varunæa, Moore, Proc. Zool. Soc. Lond. 1865, p. 799.

Epicopia philenora, Hampson, Fauna Brit. Ind., Moths, iii. p. 109 (1895).

One female specimen of the *varunæa* form from Moupin, taken in July.

Distribution. Sikhim; Assam (*Hampson*); Western China.

Family Uraniidæ.

Genus ACROPTERIS.

(Hübner, Hampson, Fauna Brit. Ind., Moths, iii. p. 114 (1895).)

Acropteris iphiata.

Micronia iphiata, Guen. Phal. ii. p. 29 (1857).

Micronia pontiata, Guen. l. c.

Acropteris iphiata, Hampson, Fauna Brit. Ind., Moths, iii. p. 116 (1895).

There were specimens from Yokohama in Pryer's collection; I met with the species at Nagasaki, Fushiki, and Gensan in July, and have received it from Kiukiang, Ichang, Chang-yang, and the province of Kwei-chow.

Distribution. Himalayas; Khâsis; Burma (*Hampson*); Japan; Eastern, Central, and Western China.

Genus PSEUDOMICRONIA.

(Moore, Lep. Ceyl. iii. p. 461 (1887).)

Pseudomicronia archilis.*Micronia archilis*, Oberth. Etud. d'Entom. xv. p. 23, pl. iii. fig. 33 (1891).*Pseudomicronia archilis* (*soror*), Alph. Rom. sur Lép. vi. p. 53, pl. iii. fig. 1, ♀ (1892).

This species, which was discovered by Mons. Biet at Tachien-lu, was obtained by my collectors in most of the localities they visited in Western China. Alphéraky records it from the province of Kan-Sou, July.

In one form, which so far has been received only from Moupin, the ground-colour and that of all the markings is suffused with brownish.

Hab. Western China.

Genus MICRONIA.

(Guenée, Phal. ii. p. 22 (1857).)

Micronia aculeata.*Micronia aculeata*, Guen. Phal. ii. p. 26, pl. xiii. fig. 8 (1857); Hampson, Fauna Brit. Ind., Moths, iii. p. 117 (1895).*Micronia gannata*, Guen. *l. c.*

One specimen was received from Huang-mu-chang, where it was taken in July, and I captured one example at Foochau in April.

Distribution. Throughout India, Ceylon, and Burma; Andamans; Java; Borneo; Formosa (*Hampson*); Western China; Foochau.

Genus AUZEA.

(Walker, Cat. Lep. Het. xxv. p. 1487 (1862).)

Auzea obliquaria, sp. n.

Pale brownish grey, tinged with violaceous. Primaries have a fine oblique brown line, angled below costa, before the middle, and a broad oblique olivaceous-brown line from apex to about the middle of the abdominal margin of secondaries; there is a whitish patch sparingly irrorated with fuscous on the costa before apex; this is preceded by an olivaceous-brown cloud, and has a small spot of the same colour on its outer edge. Under surface orange freckled with fuscous: primaries are suffused with purplish grey on the disk, and have a yellowish patch on costa towards apex; a pale oblique line

edged inwardly with blackish from apex: secondaries have two purplish-grey transverse lines.

Expanse 44 millim.

Two female specimens from Chang-yang, June and July.

Hab. Central China.

Family Epiplemidæ.

Genus DECETIA.

(Walker, Cat. Lep. Het. xx. p. 232 (1860).)

Decetia numicusaria.

Decetia numicusaria, Walk. Cat. Lep. Het. xx. p. 95; Hampson, Fauna Brit. Ind., Moths, iii. p. 122 (1895).

I received a specimen from Moupin and one from Omei-shan; both were taken in July.

Distribution. Sylhet (*Hampson*); Western China.

Decetia violacearia, sp. n.

Violet-grey, suffused with brown on the costa and also on the outer marginal area beyond the darker brown oblique line which runs from near apex of primaries to middle of abdominal margin of secondaries; this line is inwardly edged with pale violet; a blackish discal dot on each wing: the primaries have indications of a wavy dusky line before the middle; fringes brown. Under surface similar to above, but the portion within the oblique line is paler on all the wings.

Expanse 36 millim.

One female specimen from Omei-shan, July.

Hab. Western China.

Decetia argentilinearis, sp. n.

Olivaceous brown. Primaries have an oblique silvery-grey line, angulated below costa and slightly elbowed inwards above the inner margin; between this line and the base of the wing there are two or three finer wavy and angulated lines; outer marginal area golden brown, with an upright dark brown bar on inner margin: secondaries have two silvery-grey transverse lines on central area and three wavy diffuse lines of the same colour on the outer marginal area, the outermost being on the margin itself. Under surface olivaceous grey; apical third of primaries pale golden, and there is a tinge of the same colour on the outer margin of secondaries. Antennæ pectinated.

Expanse 33 millim.

Two male specimens taken by my native collector at Hakodate in June or July.

Hab. Yesso.

Decetia lilacinaria, sp. n.

Fuscous brown. Primaries speckled with lilacine atoms and suffused with golden brown on outer marginal area; there are two faint lilacine transverse lines, the outer one angled below costa, continued across the secondaries to middle of the margin, where it terminates in a patch of golden brown, and is outwardly bordered with the same colour; discal spot black. All the wings have indications near the inner margin of a dark submarginal band; fringes brown, tipped with greyish and preceded by an interrupted lilacine line. Under surface pale brown, darker towards outer margin; each wing has a dusky double transverse line and a black discal spot; the costa of primaries is edged with pale ochreous, especially towards apex, and there is a large golden-brown patch on outer margin of these wings; the apex of primaries is much produced.

Expanse 40 millim.

One male specimen from the summit of Omei-shan, taken in July.

Hab. Western China.

Genus PARADECETIA.

(Swinhoe, Trans. Ent. Soc. Lond. 1894, p. 164.)

Paradecetia albistellaria.

Decetia albistellaria, Walk. Cat. Lep. Het. xxvi. p. 1522 (1862).

Two male specimens from Ta-chien-lu and two examples of each sex from Chang-yang.

Distribution. Khásis; E. Pegu; Shán States (*Hampson*); Central and Western China.

Genus EPIPLEMA.

(Herr.-Schäffer; *Hampson*, Fauna Brit. Ind., Moths, iii. p. 125 (1895).)

Epiplema moza.

Erosia moza, Butl. Ann. & Mag. Nat. Hist. (5) i. p. 402 (1878); Ill. Typ. Lep. Het. iii. p. 42, pl. li. fig. 7 (1879).

The specimens in Pryer's collection were from Yokohama. I took the species at Nagasaki in May and Gensan in July, and have received it from Chang-yang and Omei-shan, July.

Distribution. Japan; Corea; Central and Western China.

Epiplema morataria, sp. n.

Allied to *E. moza*, Butl., with which it agrees very nearly in marking, but differs very greatly from that species in the contour of the wings. The angle at middle of outer margin of primaries is more pronounced, and there is a very conspicuous lobe at inner angle; both tails of secondaries are longer and thicker.

The transverse lines of primaries are more decidedly angled, especially the first one, and the dark spot on inner margin is almost square and hardly extends beyond the second line. On the secondaries the second transverse line is bordered inwardly with dusky and edged outwardly by a pale reddish-brown line; it is obtusely angled. There is a dusky submarginal line. Under surface fuscous grey, irrorated with brown.

Expanse 34 millim.

One female specimen from Moupin, July.

Hab. Western China.

Epiplema cretacea.

Erosia cretacea, Butl. Trans. Ent. Soc. 1881, p. 414.

There was a male specimen in Pryer's collection and I took a female example at Shimonoseki in July. Butler's type was from Tokio.

Hab. Japan.

Epiplema styx.

Erosia styx, Butl. Trans. Ent. Soc. 1881, p. 416.

Specimens from Oiwake and Fujisan in Pryer's collection. Types from Yokohama.

Hab. Japan.

Epiplema himala.

Erosia himala, Butl. Ann. & Mag. Nat. Hist. (5) vi. p. 221 (1880); Ill. Typ. Lep. Het. vi. p. 47, pl. cxii. fig. 9 (1886); Alph. Rom. sur Lép. vi. p. 52 (1892).

Epiplema himala, Hampson, Fauna Brit. Ind., Moths, iii. p. 131 (1895).

Erosia auroguttata, Pouj. Ann. Soc. Ent. Fr. 1895, p. 311, pl. vi. fig. 11.

Several specimens were received from Chang-yang and also from various localities in Western China, July and August.

Alphéraky records the species from the province of Szechuen (taken in August) and Poujade from Moupin.

Distribution. Sikhim; Khásis (*Hampson*); Central and Western China.

Epiplema schidacina.

Erosia schidacina, Butl. Trans. Ent. Soc. 1881, p. 415.

Specimens in Pryer's collection from Oiwake. I met with the species at Hakodate in August, and I have received examples from Omei-shan, Chia-ting-fu, Ta-chien-lu, and Pu-tsu-fong, taken in June and July.

Distribution. Japan; Yesso; Western China.

Epiplema instabilata.

Erosia instabilata, Walk. Cat. Lep. Het., Suppl. xxxv. p. 1646 (1866).

Dirades conchiferata, Moore, Lep. Ceyl. iii. p. 403, pl. clxxxvi. fig. 11 (1887).

Epiplema instabilata, Hampson, Fauna Brit. Ind., Moths, iii. p. 131 (1895).

Three specimens taken at Ningpo by a native collector in July. Two examples were received from Ichang, taken in June and July.

One specimen from Ningpo has the fore wings entirely whitish, with a small black discal spot.

Distribution. India; Ceylon; Solomon Islands; China.

Epiplema plagifera.

Erosia plagifera, Butl. Trans. Ent. Soc. 1881, p. 414.

There were specimens from Yokohama and Gifu in Pryer's collection. I took the species at Foochau in April and in Satsuma in May.

Distribution. Japan; Eastern China.

Epiplema bicaudata.

Erosia bicaudata, Moore, Proc. Zool. Soc. Lond. 1867, p. 643, pl. xxxiii. fig. 12.

One specimen taken by my native collector at Ningpo in June. I received two specimens from Ichang, one from Wassu-kow, and several from Omei-shan and Moupin, taken in June and July.

Distribution. Dharmasála; Sikhim; Khásis (*Hampson*); North, Central, and Western China.

Epiplema nubifasciaria, sp. n.

Creamy white, slightly suffused with blackish on basal two thirds. Primaries have a black-edged brown band beyond the middle, and this is followed by a large irregular blackish-grey cloud, which occupies all but the apical portion

of the outer marginal area and has a slightly curved black bar on its external edge: secondaries have the basal area marked with blackish; central band and cloud beyond similar to those on primaries; discal spot elongate, black. Under surface white; primaries have a large blackish patch on basal half, but this does not extend to inner margin; a narrow blackish band just beyond the middle of the wing, separated from a broader band of the same colour by a narrow space of the ground-colour; secondaries have a blackish discal mark and small blackish spots on basal area, and some large ones and a cloud on outer marginal area.

Expanse 20 millim.

One male specimen from Chang-yang, August.

Hab. Central China.

Closely allied to *E. bicaudata*, Walk.

Epiplema rapha.

Erosia rapha, Butl. Ann. & Mag. Nat. Hist. (5) i. p. 403 (1878); Ill. Typ. Lep. Het. iii. p. 42, pl. li. fig. 5 (1879).

Several specimens from Oiwake in Pryer's collection. I obtained one example at Hakodate in July.

Hab. Japan and Yesso.

Genus GATHYNIA.

(Walk. ; Hampson, Fauna Brit. Ind., Moths, iii. p. 134 (1895).)

Gathynia fasciaria, sp. n.

Primaries brownish, with a darker central fascia, which is indented on its inner edge and bordered with ochreous: secondaries rather darker than primaries, with a dark brown dot on abdominal area towards the base, and a dark brown central transverse line outwardly edged with ochreous; fringes dark grey. Under surface fuliginous grey.

Expanse 18 millim.

One female specimen from Gensan, July.

Hab. Corea.

Genus ATOSSA.

(Moore, Proc. Zool. Soc. Lond. 1874, p. 577.)

Atossa nelcinna.

Atossa nelcinna, Moore, Proc. Zool. Soc. Lond. 1874, p. 577, pl. lxvii. fig. 7; Elwes, P. Z. S. 1890, p. 381, pl. xxxiv. fig. 1, ♂.

Atossa nelcynna, var. *chinensis*, Leech, Entom. xxiii. p. 83 (1890).

I have a male specimen of this species from Wa-shan, a

female from Chang-yang, and two females from Omei-shan, May, June, and July.

Distribution. N.W. Himalayas (*Hampson*); Central and Western China.

Atossa Leechi.

Atossa Leechi, Elwes, Proc. Zool. Soc. Lond. 1890, p. 381.

A male specimen was received from Huang-mu-chang, one from Omei-shan, another and also a female from Moupin, June and July.

Hab. Western China.

Both these species of *Atossa* exhibit considerable resemblance to *Delias patrua*, Leech, a butterfly occurring in the same localities.

The characters given by Mr. Elwes as separating this species from *A. nelcinna* appear to be constant.

Genus OBERTHÜRIA, nov.

Palpi porrect, hairy, extending beyond head. Antennæ fasciculate. Primaries with vein 5 from just above the middle of discocellulars, 6 and 7 stalked, as also are 8, 9, and 10. Secondaries with two internal veins and 5 from just above the middle of discocellulars. Outer margin of all the wings rounded; costa of primaries arched at the base.

Type *O. Davidi*.

Oberthüria Davidi.

Abraxas Davidi, Oberth. Ann. Soc. Ent. Fr. 1885, p. ccxxix; Etud. d'Entom. xi. p. 33, pl. iii. fig. 16 (1886).

Five male specimens from Moupin and one from Chia-ting-fu, July.

Hab. Western China.

Oberthüria flavomarginaria, sp. n. (Pl. VI. fig. 7.)

Closely allied to *A. Davidi*, but differing from that species in having much broader and richer yellow borders to all the wings; these borders are traversed by a series of black spots and are inwardly limited by narrower black bands, the black marginal spots are rounder and exhibit less tendency to confluence; the costal area is more deeply yellow and more finely speckled with black; on the secondaries there is no black transverse bar at end of discal cell and the abdominal margin is not suffused with blackish; the body is yellower.

Expanse 50–58 millim.

Three male specimens from Wa-shan, June.

Hab. Western China.

Oberthürria nigromacularia, sp. n. (Pl. VI. fig. 6.)

White; the costa and outer margin of primaries are broadly yellow, the former dotted with black, the latter traversed by two series of black spots and bordered inwardly by a third series; there is an interrupted macular central band, and from this to the inner margin there is a series of five black spots bordering the yellow costal stripe: secondaries are black at the extreme base of the wing, and have large black spots placed as follows:—two confluent about the centre of the wing, a longitudinal series above them, and three contiguous rows on the outer marginal area; the ground between some of these latter is tinged with yellowish. Fringes of primaries black, marked with yellow towards inner angle; of secondaries white. Under surface as above, but the rows of spots on outer marginal area of secondaries are smaller and more distinctly separated. Body yellow, marked with black.

Expanse 50 millim.

Two male specimens from Chang-yang, July.

Hab. Central China.

The black discal markings, absence of yellow border to secondaries and of black on the neurulation at once separate this species from either *A. Davidi* or *A. flavomarginaria*.

Genus PSYCHOSTROPHIA.

(Butl. Ann. & Mag. Nat. Hist. (4) xx. p. 401 (1877).)

Psychostrophia melanargia.

Psychostrophia melanargia, Butl. Ann. & Mag. Nat. Hist. (4) xx. p. 401 (1877); Ill. Typ. Lep. Het. ii. p. 9, pl. xxiii. fig. 7 (1878); Leech, Proc. Zool. Soc. Lond. 1888, p. 612.

There were specimens in Pryer's collection from Nikko and Fujisan. I obtained the species at Tsuruga in July.

Hab. Japan.

Psychostrophia nymphidiaria.

Abraxas nymphidiaria, Oberth. Etud. d'Entom. xviii. p. 34, pl. ii. fig. 28 (1893).

Not uncommon at Chang-yang; Ichang; Moupin; Wanshan, Ta-chien-lu, and Chia-kou-ho. June and July.

Hab. Central and Western China.

Psychostrophia picaria, sp. n. (Pl. VI. fig. 11.)

Male.—Primaries black, with a broad oblique central fascia extending from inner margin to outer extremity of discal cell,

Ann. & Mag. N. Hist. Ser. 6. Vol. xix. 14

indented on its upper edge and represented on apical area by an oval spot; below the latter there is a submarginal series of four round spots, also white: secondaries white, with a black central band and a black border on outer margin. Fringes black, marked with white below apex of primaries and just above the middle of secondaries. Under surface as above, but the costa is streaked with yellowish.

Female.—Similar to the male, but the white markings of primaries are wider and the black one of secondaries is narrower.

Expanse, ♂ 33–43, ♀ 45–47 millim.

A long series from Chang-yang and one female specimen from Ichang, June.

Hab. Central China.

The white band on primaries and the black on secondaries are variable in width.

Family Geometridæ.

Subfamily BOARMIINÆ.

(Hampson, Fauna Brit. Ind., Moths, iii. p. 139 (1895).)

Genus URAPTERYX.

(Leech; Hampson, *op. cit.* p. 144.)

Urapteryx sambucaria.

Phal. Geometra sambucaria, Linn. Syst. Nat. x. p. 519.

Urapteryx persica, Mén. Cat. Mus. Pet. p. 267 (1832).

? *Urapteryx nivea*, Butl. Journ. Linn. Soc., Zool. xvii. p. 199 (1893).

I took specimens of the var. *persica* in Satsuma in May and at Nagasaki in June. This form is whiter than the type, but it can hardly be called smaller. One of the Satsuma examples expands 68 millim. I did not meet with the species in any other part of Japan, and there were no specimens in Pryer's collection. My native collector obtained the species in the island of Kiushiu.

I received specimens of the type form and also of var. *persica* from Pu-tsu-fong and Omei-shan, but the variety only was obtained in the province of Kwei-chow. The typical specimens from China are rather more striated than is the case in European examples.

Distribution. Europe; Armenia; Amur; Japan; Western China.

Urapteryx latimarginaria, sp. n.

White; the markings on primaries are somewhat similar

to those of *U. costistrigaria*, but the bands, which are fuliginous grey in colour, are narrower, and there are fewer streaks on the costa, and these are confined to the basal area with the exception of a streak between the first transverse band and the short central band; on the outer area of the wing there is a fuliginous grey band, which is very broad towards apex, but tapers slightly to the first median nervule, whence it is continued in slender streaks to inner angle: on the secondaries the transverse band is also narrower and the cloud on outer area is greyish and suffused with pale ochreous. Above the tail, which is rather broader and more obtusely produced, there is a large reddish spot, and below it another spot of the same colour; both are ringed with black, and there is an elongated black spot nearer the anal angle. Under surface: markings of upperside reproduced, but the central bands are fainter and narrower and that on outer area much darker; the secondaries have some dark grey shading along outer margin.

Expanse 68 millim.

One male example from Omei-shan, June.

Hab. Western China.

Urapteryx costistrigaria, sp. n.

White; primaries traversed by two rather broad oblique brownish bands, becoming blackish towards costa; a shorter and narrower band between them, commencing in a darker spot on costa and terminating in first median interspace; basal area of costa streaked with dark brown; these streaks are short near the base, but the outermost extend almost to submedian nervure; the outer third is heavily striated and clouded with fuliginous; the costa between the broad bands is also streaked with brownish; fringes brown from apex to just above termination of submedian nervure, and thence white, except where interrupted by continuation of the broad transverse bands: secondaries traversed by an oblique brownish band from fork of subcostal nervure to a large cloud of the same colour on outer area; the abdominal area of the wing is clothed, except towards anal angle, with long silky hairs of a creamy colour; above the tail, which is obtusely produced, there is a reddish spot ringed with black, and below it there is an elongated blackish mark; fringes fulvous brown, except at costal and anal angles. Head snowy white; face brown; collar creamy. Under surface white, discal markings on upper surface of primaries faintly reproduced; outer area broadly fuliginous as far as submedian nervure; the second-

aries are without markings, except on the anal half of outer area in one specimen, where there are some fuliginous streaks and shading.

Expanse 68 millim.

Two male specimens from Omei-shan, taken in June.

Hab. Western China.

Urapteryx ebuleata.

Urapteryx ebuleata, Guen. Phal. i. p. 32 (1857); Hampson, Fauna Brit. Ind., Moths, iii. p. 145 (1895).

Occurs in July at Pu-tsu-fong, Omei-shan, Kia-ting-fu, and Wa-shan; also at Chang-yang, in June and July.

The specimens, among which are examples of the larger *multistrigaria* form, appear to differ chiefly from *U. sambucaria*, var. *persica*, in being more heavily striated, and may possibly be only extreme forms of that variety.

Hampson (Fauna Brit. Ind., Moths, iii. p. 145) considers *kantalaria*, Feld., *multistrigaria*, Walk., and *Yerburii*, Butl., to be synonymous with *U. ebuleata*. Alphéraky (Rom. sur Lép. vi. p. 52) notes one female specimen of *U. Yerburii* from the province of Szechuen, taken in August.

Distribution. Central and Western China; mountains of Northern India.

Urapteryx similaria, sp. n. (Pl. VI. fig. 3.)

In size and general appearance closely resembles *E. maculicaudaria*, Motsch., but the antennæ of the male are not pectinated, and in both sexes the line on secondaries is straight and the tails rather more prolonged and ornamented with a red and a black spot, the black one being the smaller. In the female the central band on secondaries is interrupted, its lower extremity being represented by a spot.

Expanse, ♂ 50, ♀ 47 millim.

Two specimens, a male from Omei-shan and a female from Chang-yang, July.

Hab. Central and Western China.

Urapteryx subpunctaria. (Pl. VI. fig. 2.)

Urapteryx subpunctaria, Leech, Entom., Suppl. p. 42 (May 1891).

Tristrophis obtusicauda, Warren, Novit. Zool. i. p. 399 (1894).

Two specimens from Oiwake in Pryer's collection.

Superficially resembles *E. maculicaudaria*, Motsch., but the antennæ of the male are not pectinated and the arrangement of the lines above and the spot on the secondaries beneath are dissimilar.

Hab. Japan.

Urapteryx kernaria.

Urapteryx kernaria, Oberth. Etud. d'Entom. xviii. p. 23, pl. ii. fig. 20 (Nov. 1893).

This species was discovered in Western China at Tsé-kou by R. P. Dubernard; my collectors did not meet with it.

Genus EUCTENURAPTERYX.

(Warren, Novit. Zool. i. p. 399 (1894).)

Euctenurapteryx maculicaudaria.

Acæna maculicaudaria, Motsch. Bull. Soc. Nat. Mosc. 1866, i. p. 196.

Euctenurapteryx maculicaudaria, Warren, Novit. Zool. i. p. 399 (1894).

Urapteryx luteiceps, Feld. Reis. Nov., Lep. v. pl. cxxii. fig. 2 (1875).

A series from Yokohama and Oiwake in Pryer's collection. I took specimens at Tsuruga in July and at Hakodate in August.

Among the specimens in Pryer's collection is a remarkable female aberration from Yokohama, in which the usual white colour is replaced by pale greyish brown; the transverse lines are, in consequence of the ground-colour, indistinct, but they are more ferruginous in colour, as also are the fringes and the spots at angle of the secondaries.

Distribution. Japan; Yesso; Eastern China.

Euctenurapteryx parallelaria.

Urapteryx parallelaria, Leech, Entom., Suppl. p. 5 (Jan. 1891).

I have one female specimen which was taken by a native collector at Chang-yang.

Hab. Central China.

Euctenurapteryx nigrociliaria.

Urapteryx nigrociliaris, Leech, Entom., Suppl. p. 5 (Jan. 1891).

Appears to be not uncommon at Huang-mu-chang, in July. It also occurs at Omei-shan and in the province of Kweichow in June.

Hab. Western China.

Genus THINOPTERYX.

(Butl. Journ. Linn. Soc., Zool. xvii. p. 202 (1883).)

Thinopteryx crocoptera.

Urapteryx crocoptera, Koll. Hüg. Kasch. iv. p. 483 (1848).

Thinopteryx striolata, Butl. Journ. Linn. Soc., Zool. xvii. p. 202 (1883).

Thinopteryx crocoptera, Hampson, Fauna Brit. Ind., Moths, iii. p. 148 (1895).

I obtained this species at Nagasaki and in Satsuma in May, at Gensan in July, and I have received specimens from various localities in Central and Western China. There were some examples from Kintokisan and Nikko in Pryer's collection.

It is very variable, and I have intergrades between the typical form and *striolata*, Butl. One specimen has three purple-brown spots on primaries, and a patch of the same colour on secondaries; there is a similar specimen in the series of *T. crocoptera* from Dharmasala in the National Collection at South Kensington.

Distribution. Japan; Corea; North, Central, and Western China; North India.

Thinopteryx prætoraria.

Urapteryx prætoraria, Feld. Reise Nov., Lep. v. pl. cxxii. fig. 13 (1875).

One female example taken at Omei-shan, Western China, in July.

This specimen seems very distinct from *T. crocoptera*, Koll.

Distribution. Sylhet, Western China.

Thinopteryx delectans.

Urapteryx delectans, Butl. Ill. Typ. Lep. Het. ii. p. 45, pl. xxxv. fig. 2 (1878).

Several specimens from Fujisan, Ohoyama, and Nikko in Pryer's collection. I have examples from Ichang, Changyang, Wa-shan, Omei-shan, and the Provinces of Kwei-chow, taken in June and July.

The yellow marking in this species is subject to variation; in typical specimens the wings are thickly sprinkled with yellow, whilst in other examples the yellow is confined to the median area and outer margin.

Distribution. Japan; North, Central, and Western China.

Genus *SIRINOPTERYX*.

(Butl. Journ. Linn. Soc., Zool. xvii. p. 201 (1883).)

Sirinopteryx rufivinctata.

Urapteryx rufivinctata, Walk. Cat. Lep. Het. xxvi. p. 1747 (1862).

Sirinopteryx rufivinctata, Hampson, Fauna Brit. Ind., Moths, iii. p. 147 (1895).

Several specimens from Moupin, and one example from Changyang, July.

Distribution. Northern India; Central and Western China.

Genus TRISTROPHIS.

(Butl. Journ. Linn. Soc., Zool. vii. p. 199 (1883).)

Tristrophis veneris.

Urapteryx veneris, Butl. Ann. & Mag. Nat. Hist. (5) i. p. 392 (1878);
Ill. Typ. Lep. Het. iii. p. 29, pl. xlviii. fig. 1 (1879).

A fine series from Yokohama and Nikko in Pryer's collection.

The transverse bands of primaries vary in width and the black spots on disk of secondaries are inconstant both as regards size and number.

Hab. Japan.

Genus MYRTETA.

(Walk. Cat. Lep. Het. xxiii. p. 831 (1861).)

Myrteta sinensaria, sp. n. (Pl. VI. fig. 13.)

Near to *M. planaria*, Walk., but rather whiter in the ground-colour; outer third of primaries more heavily suffused and the three transverse lines approach nearer to each other toward inner angle; the three blackish spots towards anal angle of *M. planaria* are in *M. sinensaria* replaced by a sinuate black line, and the two submarginal spots are represented by a blotch.

Expanse 46 millim.

One male example from Moupin, July.

Hab. Western China.

Myrteta angelica.

Myrteta angelica, Butl. Trans. Ent. Soc. 1881, p. 413.

Two specimens from Yokohama in Pryer's collection.

I captured the species at Oiwake in October.

Hab. Japan.

Myrteta tripunctaria, sp. n.

Very near to *M. angelica*, Butl., but whiter, and the three transverse lines of primaries are narrower and more oblique; on the outer edge of the yellow patch at anal angle of secondaries there are three black spots, the middle one the largest, and a short indented black line on its inner edge. On the under surface the neuration is dark coloured; the outer marginal area of primaries is broadly blackish, preceded by a blackish line, and the basal area is suffused with the same colour; above the three blackish spots on outer margin of secondaries there is a blackish patch; submarginal line

blackish, indented above anal angle. Except at anal angle the line at base of the fringes of secondaries is blackish instead of light brown, as in *M. angelica*, and the antennæ are more broadly pectinated than in that species.

Expanse 44 millim.

One male specimen from Moupin, July.

Hab. Western China.

Myrteta sericea.

Orthocabera sericea, Butl. Ann. & Mag. Nat. Hist. (5) iv. p. 439 (1879).

Orthocabera brunneiceps, Warren, Proc. Zool. Soc. Lond. 1893, p. 387, pl. xxxi. fig. 23.

Myrteta sericea, Hampson, Fauna Brit. Ind., Moths, iii. p. 152 (1895).

Four specimens from Nikko in Pryer's collection.

Distribution. Sikhim; Khâsis (*Hampson*); Japan.

Myrteta unio.

Acidalia unio, Oberth. Etud. d'Entom. v. p. 50, pl. ix. fig. 12 (1880).

Cabera magna, Butl. Trans. Ent. Soc. 1881, p. 416.

One female specimen in Pryer's collection and I received one example of the same sex from Mr. Manley of Yokohama.

Distribution. Askold; Japan.

Myrteta argentaria, sp. n.

Silvery white. Primaries have a blackish discal spot and are traversed by three dusky bands, the first of which is rather more oblique than the others; submarginal line dusky, parallel with outer margin except towards inner margin, where it terminates close to the inner angle; marginal band dusky. Secondaries have a blackish discal spot and two wavy dusky bands; submarginal band dusky, diffuse on its inner edge; the middle of outer margin is slightly angled and there is a black spot on the angle. Fringes tinged with greyish. Under surface white; all the wings have a black discal spot, and the secondaries have a diffuse dusky submarginal band; in some specimens the primaries also have traces of a dusky submarginal band. Antennæ serrated.

Expanse, ♂ 46, ♀ 48 millim.

Three male specimens and three females from Omei-shan, Pu-tsu-fong, Chia-ting-fu, July.

Hab. Western China.

Genus BAPTA.

(Steph. Ill. Brit. Ent., Haust. iii. p. 294 (1829).)

Bapta bimaculata.

Phalæna bimaculata, Fabr. Syst. Ent. 635 (1775).

Geometra taminata, Hübn. Geom. fig. 90.

Pseudopanthera bimaculata, Meyrick, Trans. Ent. Soc. 1892, p. 117.

Bapta subnotata, Warren, Novit. Zool. ii. p. 127 (1895).

I took specimens at Gensan in June and there were a few examples in Pryer's collection from Oiwake. My native collector obtained the species at Hakodate.

Distribution. Europe; Altai; Japan; Yesso; Corea.

Bapta punctata.

Phalæna punctata, Fabr. Syst. Ent. 637.

Geometra temerata, Hübn. Geom. fig. 91.

Pseudopanthera punctata, Meyrick, Trans. Ent. Soc. 1892, p. 117.

Asthenes sancta, Butl. Trans. Ent. Soc. Lond. 1881, p. 413.

There were a few specimens from Oiwake in Pryer's collection, and I received examples from Hakodate taken in June.

Two of the specimens from Oiwake and one from Hakodate are slightly suffused with pale greyish, with the markings more or less obliterated, and are almost identical with an example from Germany in my collection. On the other hand, a specimen from Oiwake has the markings as dark and well defined as any in my European series.

Distribution. Europe; Ural; Amur; Japan; Yesso.

Bapta mytylata.

Corycia mytylata, Guen. Phal. ii. p. 58 (1857).

Bapta mytylata, Hampson, Fauna Brit. Ind., Moths, iii. p. 155 (1895).

There was a series from Oiwake and Yesso in Pryer's collection. I received a specimen from Wa-shan, taken in June, one from Huang-mu-chang and one from the Province of Kwei-chow, taken in July.

Distribution. N.W. Himalayas; Thundiáni; Punjab; Sikhim; Khásis (*Hampson*); Japan; Yesso; Western China.

Bapta fædata.

Bapta fædata, Warren, Novit. Zool. i. p. 404 (1894).

Warren describes this species from Japan.

I have one male specimen from Chang-yang and four females from Ta-chien-lu, taken in June and July.

Differs from *B. mytylata*, Guen., in having the upper surface more densely powdered with fuscous, and in the discal area of under surface of primaries being suffused with fuscous.

Distribution. Japan (*Warren*); Central and Western China.

Bapta platyleucata.

Acidalia platyleucata, Walk. Cat. Lep. Het., Suppl. xxxv. p. 1628 (1866).

Bapta platyleucata, Hampson, Fauna Brit. Ind., Moths, iii. p. 155 (1895).

Three specimens from Pu-tsu-fong, taken in June and July.

Distribution. Kashmir; Sikhim; Khásis (*Hampson*); Western China.

Bapta sacra.

Corycia sacra, Butl. Ann. & Mag. Nat. Hist. (5) i. p. 404 (1878); Ill. Typ. Lep. Het. iii. p. 44, pl. li. fig. 11 (1879).

Specimens from Yokohama in Pryer's collection.

I captured this species in Satsuma and at Nagasaki in May, at Gensan in June, and Mr. Smith took examples at Hakone in August. My native collector also obtained specimens in the latter month at Hakodate. Specimens have been received from Ichang and Omei-shan, taken in July.

Distribution. Japan; Yesso; Corea; Central and Western China.

Bapta candidaria, sp. n.

Male.—White, with a black discal dot on each wing. Primaries traversed by two dusky macular bands; the secondaries have one macular band. Under surface white; primaries slightly suffused with fuscous on basal two-thirds, and traversed by a dusky band which does not extend to inner margin; all the wings have a black discal dot.

Female.—Similar to the male, but the transverse markings are more distinct; there is a series of black dots on the outer margin of both surfaces of each wing, and the secondaries have a macular band on the under surface.

Expanse ♂ 30, ♀ 34 millim.

One example of each sex from Oiwake in Pryer's collection.

Hab. Japan.

Allied to *B. sacra*, Butl.

Bapta nigropunctaria, sp. n.

Silvery white powdered with fuscous. All the wings have dusky postmedial and submarginal bands and a blackish discal spot. Primaries have an elongate velvety black spot on costa just before the apex; costa pale brown. Fringes silvery, preceded by a pale brown line. Under surface

silvery white, faintly suffused with fuscous-grey, except on inner marginal area of primaries; fringes tipped with fuscous.

Expanse 36 millim.

Two male specimens. Moupin and Ta-chien-lu. July.

Hab. Western China.

Bapta distans.

Bapta distans, Warren, Novit. Zool. i. p. 404 (1894).

Seven specimens (1 ♂, 6 ♀) from Omei-shan, Wa-shan, Pu-tsu-fong, Che-tou, and Chang-yang, June.

Distribution. Japan (Warren); Central and Western China.

Bapta clarissa.

Iodis clarissa, Butl. Ill. Typ. Lep. Het. ii. p. 49, pl. xxxvi. fig. 4 (1878).

Pseudopanthera clarissa, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 117.

A nice series from Yokohama in Pryer's collection.

I obtained specimens in Satsuma in May and at Nagasaki in June, and my native collector took the species at Hakodate and in the island of Kiushiu.

Hab. Japan; Yesso; Kiushiu; Amur.

Bapta inamata.

Acidalia inamata, Walk. Cat. Lep. Het. xxii. p. 755 (1861).

Noreia inamata, Moore, Lep. Ceyl. iii. p. 406, pl. 185. fig. 4 (1887).

Acidalia simpliciaris, Walk. l. c. xxiii. p. 793 (1861).

Bapta inamata, Hampson, Fauna Brit. Ind., Moths, iii. p. 154 (1895).

I obtained a female specimen in Satsuma which appears to be referable to this species, but the transverse line is rather deeper in colour on all the wings.

Distribution. Sylhet; Nilgiris; Ceylon; Sumatra; Borneo (Hampson); Japan.

Bapta ochrilinea.

Bapta ochrilinea, Warren, Novit. Zool. i. p. 404 (1894).

Hab. China.

I have not seen the type of this species.

Genus *ANGERONA*.

(Dup. Léop. iv. p. 181.)

Angerona prunaria.

Phal. Geometra prunaria, Linn. Syst. Nat. x. 520.

Geometra prunaria, Hübn. Geom. figs. 122, 123.

Angerona prunaria, Dup. vii. pl. 147. figs. 1, 2; Guen. Phal. i. p. 115.

Euchlæna prunaria, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 112.

Several specimens from Yokohama, Oiwake, and Yesso in Pryer's collection. I took the species at Gensan in June.

Most of the European forms are represented in Japan, but there is a wider range in the size of the specimens—the smallest example being only 36 millim. in expanse, whilst the largest measures 74 millim.

Distribution. Europe; Amur; Corea; Japan; Yesso.

Angerona nigrisparsa.

Angerona nigrisparsa, Butl. Ann. & Mag. Nat. Hist. (5) iv. p. 370 (1879).

A few specimens from Yokohama and Oiwake in Pryer's collection. I captured the species at Sendai in September. Mr. Smith met with it at Hakone and Myianoshita in August.

Hab. Japan.

Genus METROCAMPA.

(Latr.; Meyrick, Trans. Ent. Soc. Lond. 1892, p. 111.)

Metrocampa grandinaria.

Angerona grandinaria, Motsch. Etud. Ent. p. 37 (1860).

Ennomos serrata, Brem. Lep. Ost-Sib. p. 100, pl. viii. fig. 11 (1864).

Metrocampa serrata, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 112.

There were several specimens in Pryer's collection, and I have received examples from Mr. Manley of Yokohama. The species also occurs at Ohoyama, Nikko, Tokio, Oiwake, and Kintokisan.

Distribution. Amur; Japan.

Metrocampa prattiaria.

Cidaria prattiaria, Leech, Entom., Suppl. p. 51 (May 1891).

Cidaria prattiaria, var. *unicoloraria*, Leech, l. c. p. 52.

Several specimens from Oiwake in Pryer's collection.

I received one male specimen and two females from Omeishan; one male from Moupin and one example of each sex from Chang-yang: July.

The Chang-yang specimens are rather redder in colour than the others in the series, and the Moupin male is brownish tinged with purplish. All the Chinese specimens are larger than the Japanese.

Distribution. Japan; Central and Western China.

Genus CABERODES.

(Guen.; Hampson, Fauna Brit. Ind., Moths, iii. p. 158 (1895).)

Caberodes simplicior.

Somatina simplicior, Butl. Trans. Ent. Soc. 1881, p. 412.

Cidaria pallidaria, Leech, Entom., Suppl. p. 51 (1891).

There were two specimens, labelled Fujisan and Nikko,

in Pryer's collection, and my native collector took an example in Kiushiu. Butler's type was from Tokio.

Hab. Japan and Kiushiu.

Genus NUMERIA.

(Dup. Léop. iv. p. 107.)

Numeria pulveraria.

Phal. Geometra pulveraria, Linn. x. 521 ; Clerck, Icon. pl. v. figs. 6, 9.

Metrocampa pulveraria, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 112.

Numeria japonica, Butl. Trans. Ent. Soc. Lond. 1881, p. 418.

A fine series in Pryer's collection under the name *N. japonica*.

My native collector obtained specimens at Gensan in July and also in the island of Kiushiu. I received one example from Chang-yang taken in July.

The specimens from Gensan and Kiushiu are very small.

Distribution. Europe ; Ural ; Altai ; Amur ; Japan ; Kiushiu ; Corea.

Genus ENDROPIOIDES.

(Warren, Novit. Zool. i. p. 463 (1894).)

Endropioides abjecta.

Endropia abjecta, Butl. Ann. & Mag. Nat. Hist. (5) iv. p. 371 (1879).

Endropia Snelleni, Hedem. Horæ Soc. Ent. Ross. xvi. p. 46, pl. x. fig. 1 (1881).

A fine series from Yokohama, Fujisan, Gifu, and Yesso in Pryer's collection.

Snelleni, Hedem., is certainly a dark form of *E. abjecta*, Butl. The species is variable as regards coloration, and ranges from dark reddish brown through pale reddish brown to a pale whity brown with reddish-brown outer margins. In some of the dark specimens the wings are unicolorous ; in others the basal area of primaries is paler.

Meyrick (Trans. Ent. Soc. Lond. 1892, p. 112) places *Snelleni* in *Metrocampa* and considers it synonymous with *indictinaria*, Brem.

Distribution. Japan ; Yesso ; Askold.

Genus EPHORIA.

(Meyrick, Trans. Ent. Soc. Lond. 1892, p. 109.)

Ephoria arenosa.

Epione arenosa, Butl. Ill. Typ. Lep. Het. ii. p. 46, pl. xxxv. fig. 1 (1878).

Ephoria arenosa, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 109.

There was a fine series from Oiwake and one specimen from Yesso in Pryer's collection.

Butler's type was from Hakodate.

Distribution. Amur (*Graeser*) ; Japan ; Yesso.

Ephoria leda.

Epione leda, Butl. Ill. Typ. Lep. Het. ii. p. 46, pl. xxxv. fig. 5 (1878) (♂).

Epione strenioides, Butl. l. c. fig. 6 (♀).

Epione lachrymosa, Butl. Trans. Ent. Soc. 1881, p. 402 (var. ♂).

Epione ossea, Butl. l. c. (var. ♀).

Calcaritis Oberthuerii, Butl. op. cit. p. 597 (var. ♀).

Therapis straminea, Butl. op. cit. p. 401 (var. ♀).

There was a fine series of each sex of this species from Ohoyama and Nikko in Pryer's collection, including examples of the forms *lachrymosa* and *ossea*.

I have received a male which approaches the *strenioides* form from Chang-yang and a female of the same form from Chia-ting-fu, both taken in July.

Distribution. Japan ; Central and Western China.

Ossea and *Oberthuerii* appear to be forms of the female, and *lachrymosa* a form of the male, while *straminea* is a modification of the *ossea* form in which all the transverse lines are absent.

Genus SCARDAMIA.

(Guen. Phal. i. p. 89 (1857).)

Scardamia metallaria.

Scardamia metallaria, Guen. Phal. i. p. 89 (1857).

Laginia bractearia, Walk. Cat. Lep. Het. xx. p. 245 (1860).

Scardamia aurantiacaria, Brem. Lep. Ost-Sib. p. 72, pl. vi. fig. 15 (1864).

Scardamia taprobanes, Feld. Reise Nov. pl. cxxiii. fig. 2 (1875).

Appears to be plentiful in the island of Kiushiu. I met with it at Nagasaki and in the province of Satsuma, and have received it from Gensan in Corea.

In Western China it occurs at Moupin and in the province of Kwei-chow ; and in Central China at Ichang and Chang-yang.

Distribution. Central and Western China ; Japan ; Corea ; Eastern Siberia ; India ; Ceylon ; Java.

Scardamia obliquaria, sp. n.

Similar to *S. metallaria*, Guen., but the first transverse line of primaries is elbowed above the middle, and the second

line is oblique from near apex; the marginal area is deeper orange than other portions of the wings.

Expanse 28 millim.

One female specimen taken by myself at Gensan in July.

Hab. Corea.

Genus PERATOPHYGA.

(Warren, Novit. Zool. i. p. 407 (1894).)

Peratophyga ærata.

Acidalia ærata, Moore, Proc. Zool. Soc. Lond. 1867, p. 643.

Ephyra grata, Butl. Ann. & Mag. Nat. Hist. (5) iv. p. 438 (1879).

Peratophyga ærata, Hampson, Fauna Brit. Ind., Moths, iii. p. 164 (1895).

There were specimens in Pryer's collection from Yokohama, and I met with the species at Nagasaki. It occurs also at Chang-yang, Kiukiang, Moupin, Pu-tsu-fong, Ta-chien-lu, and Omei-shan.

Distribution. Eastern, Central, and Western China; Japan; Himalayas.

This species seems to vary considerably in size and in the intensity of the markings.

Genus STEGANIA.

(Guen.; Hampson, Fauna Brit. Ind., Moths, iii. p. 164 (1895).)

Stegania irroraria, sp. n.

Pale ochreous, irrorated with ferruginous. Primaries have the costa purplish brown, and there is a narrow curved and recurved band of the same colour from one fourth before apex to inner angle; from the lower curve of this band there is a broad purplish-brown bar extending to the marginal line, which is of the same colour. Secondaries have a narrow purplish-brown band on outer margin. All the wings have a blackish discal dot and a diffuse ferruginous-brown central band, the latter is often interrupted and sometimes entirely absent. Fringes of the ground-colour. Under surface rather paler than above, with similar markings but darker in colour.

Expanse 21 millim.

I obtained a nice series at Nagasaki in May, and I have received specimens from Ningpo and Gensan.

Distribution. Kiushiu; Corea; and N.E. China.

Allied to *S. bilineata*, Butl.

Genus SYNEGIA.

(Guen. Phal. i. p. 423 (1857).)

Synegia pardaria.

Anisodes pardaria, Guen. Phal. i. p. 420 (1857).

Synegia pardaria, Hampson, Fauna Brit. Ind., Moths, iii. p. 170 (1895).

Occurs at Chang-yang, Moupin, and Omei-shan.

Distribution. Khásis; Ceylon; Borneo (*Hampson*); Central and Western China.

Synegia hadassa.

Anisodes hadassa, Butl. Ann. & Mag. Nat. Hist. (5) i. p. 400 (1878);

Ill. Typ. Lep. Het. iii. p. 38, pl. L. fig. 5 (1879).

Synegia inconspicua, Butl. Trans. Ent. Soc. 1881, p. 412.

Syntaracta hadassa, Warren, Novit. Zool. i. p. 408 (1894).

Both forms of this species occur commonly in the island of Kiushiu. There was one example of the *inconspicua* form in Pryer's collection, and I received one specimen of the same form from Yokohama, several from Hakone, and one from Chang-yang.

In the series from Kiushiu there are forms connecting the type and *inconspicua*, and others which are broadly suffused with leaden grey.

Distribution. Japan; Kiushiu; Central China.

Synegia omissa.

Syntaracta omissa, Warren, Novit. Zool. i. p. 409 (1894).

One example from Chow-pin-sa, Western China. I have also received it from the Loochoo Islands and from Kiushiu; and there was a specimen in Pryer's collection.

Distribution. Loochoo Islands; Japan; Western China.

Synegia esther.

Synegia esther, Butl. Trans. Ent. Soc. Lond. 1881, p. 411.

There were several specimens in Pryer's collection. I have also received examples from Chang-yang, Omei-shan, and the island of Kiushiu.

The Chinese specimens are lighter in colour and the transverse lines are narrower and not diffused.

Distribution. Japan; Kiushiu; Central and Western China.

Synegia rosearia, sp. n.

Male.—Primaries yellowish; basal half freckled with rosy and traversed by a violet-grey band, which is elbowed below costa; the outer half has a broad violet-grey band, from the inner edge of this there is a suffusion of the same colour towards the base of the wing and a diffuse projection towards the middle of outer margin; a violet-grey streak from apex almost touches the band, and there are some marks of the same colour towards inner angle. Secondaries yellowish; basal patch violet-grey; beyond, the wing is traversed by

more or less confluent rosy waved lines, and the outer margin has a diffuse violet-tinged rosy band. Under surface pale whitish brown, with the markings of upperside reproduced in dusky violet-grey.

Female.—The discal area of primaries is more suffused with violet-grey.

Expanse, ♂ 31, ♀ 34 millim.

One male specimen from Ichang, a male from Omei-shan, and a female from Moupin: June and July.

Hab. Central and Western China.

Genus SELENIA.

(Hübner. Verz. Schmett. p. 292 (1816).)

Selenia tetralunaria.

Geometra tetralunaria, Hüfn. Berl. Mag. iv. p. 506 (1769).

Selenia illustraria, Hübn. Verz. Schmett. p. 293; Guen. Phal. i. p. 154.

Selenia tetralunaria, var. *æstiva*, Staud. Cat. p. 157, = var. A, Guen. l. c. p. 155.

My native collector took a female specimen of the typical form at Hakodate in June, and I captured four examples of var. *æstiva* at that place in August.

Distribution. Europe; Yesso.

Selenia pallidaria.

Selenia pallidaria, Leech, Entom., Suppl. p. 43 (May 1891).

There was one female specimen from Yesso in Pryer's collection.

Hab. Yesso.

Selenia adustaria. (Pl. VII. fig. 7.)

Selenia adustaria, Leech, Entom., Suppl. p. 42 (May 1891).

Selenia adustaria, var. *fusca*, Leech, l. c.

Three specimens from Yesso in Pryer's collection. One of these is probably an individual of the second brood.

Hab. Yesso.

Selenia sordidaria, sp. n.

Very pale whitish brown, irrorated and marked with brownish on costa of primaries; all the wings have two thin brownish transverse lines. Under surface as above, but there is an ochreous lunular patch freckled with brownish on apex of primaries, and the area of secondaries between the outer line and the base of the wing is tinged with ochreous and

speckled with brownish; discal spots black, that on primaries linear.

Expanse 48 millim.

One male specimen from Ichang, April.

Hab. Central China.

Selenia (?) *crenularia*, sp. n.

Pale primrose-yellow. Basal area of primaries pinkish on the costa and limited by a dingy olive band with irregular edges, commencing as a brown spot on costa; there are some marks of the same colour within the band; beyond there is an interrupted macular, dingy olive band, the costal spot brown; the outer marginal area is limited by a pink line and suffused on the lower portion with the same colour. Secondaries have a dark discal spot, and the outer marginal area agrees with that of the primaries. The outer margins of all the wings are highly crenulate, and the fringes are olive. Under surface similar to the upperside, but the yellow is brighter and the secondaries are sprinkled with pinkish on costa, and the abdominal area is whitish. Antennæ with short ciliæ.

Expanse 50 millim.

One male specimen from Ta-chien-lu, May.

Hab. Western China.

Selenia (?) *bilinearia*, sp. n.

Whity brown, with a faint tinge of pink. Primaries have two oblique dark transverse lines—the first is angulated on costa, edged inwardly with whitish, and limits the brownish basal area; the second line traverses an irregular brownish band and is outwardly edged with whitish; the outer margin is clouded with brownish below apex and above inner angle, and there are some smaller marks of the same colour between the clouds. Secondaries have a dark transverse line agreeing with the outer one of primaries, and the ground-colour is obscured with brownish, except on costal and submarginal areas. Fringes of the ground-colour suffused and chequered with darker. Under surface: primaries bright yellow, paler on costa and inner margin; there are two transverse lines as above; secondaries paler, with two dark transverse lines approximating on inner margin.

Expanse 36 millim.

One male specimen from Chang-yang, June.

Hab. Central China.

Genus PERICALLIA.

(Steph. ; Hampson, Fauna Brit. Ind., Moths, iii. p. 223 (1895).)

Pericallia distans.*Hygrochroa distans*, Warren, Novit. Zool. ii. p. 143 (1895).

There was a specimen from Yesso in Pryer's collection. Mr. Smith took a male specimen at Hakone in August, and my native collector obtained one in the island of Kiushiu. I received one female from Omei-shan, taken in July.

In the Chinese example the transverse line is blacker and more conspicuous than in the Japanese specimens. The Kiushiu specimen is only 32 millim. in expanse.

Distribution. Japan ; Yesso ; Kiushiu ; Western China.

P. distans is very close to *P. syringaria* from Europe, and is possibly only an Asiatic form of that species. It may be referable to *P. parva*, Hedem.*, from Amurland.

Pericallia marmorataria, sp. n. (Pl. VI. fig. 15.)

Greyish-white, with a faint pinkish tinge. Basal patch of primaries reddish-grey, clouded with darker and limited by a whitish grey-edged curved line; central line deep brown, acutely angled below costa, slightly curved to first median fork, where it passes through a violet-brown cloud, then oblique to inner margin; between the central line and the whitish apex of the wing there is a grey-brown patch on costa intersected by a whitish stripe, and from the lower end of this last a thin brown curved line runs to a grey-brown cloud on inner margin. Secondaries are traversed by two brown lines, the outer one very fine and dotted with blackish on the nervules; beyond, the outer marginal area is clouded and suffused with greyish brown and traversed by a wavy line of the ground-colour. Fringes brown. Under surface: colour as above; primaries have a brownish basal patch and a diffuse central line, the last is slightly angulated below costa and followed by a brownish patch, which is intersected by a whitish streak that unites with a whitish submarginal line, the lower end of the submarginal line is bordered by a brownish cloud, and there is another cloud of the same colour on the middle of outer margin; secondaries clouded with brownish at the base, discoidal spot blackish, other markings correspond with those of upperside, but the abdominal portion of central line is reddish brown.

Expanse 40 millim.

* Horæ Soc. Ent. Ross. xvi. p. 45 (1881).

One male specimen from Chang-yang, July.

Hab. Central China.

This species is very similar to *P. syringaria*, Linn., in colour and approaches the Japanese *P. distans*, Warren.

Pericallia productaria, sp. n.

Light brown, striated and clouded with darker. Primaries have a brownish subbasal line elbowed below costa and a central brown fascia, the outer edge of the latter is blackish and has an obtuse projection extending to the indistinct pale submarginal line; costa and outer margin with paler patches tinged with lilacine. Secondaries have a central fascia which appears to be a continuation of that on primaries, but the projection on outer edge is less pronounced and there are two indentations below it. All the wings have a black discal spot, that on primaries rather linear. Fringes crenulate, brown marked with paler, and preceded by a brown line. Under surface ochreous, striated with reddish brown; all the wings have a blackish discal spot and a purplish-brown central line, the latter, on secondaries, is bordered with purplish towards abdominal margin; there is a dusky transverse shade on primaries from costa to median nervure. Vertex of head whitish.

Expanse 36 millim.

One male specimen from Wa-shan, May.

Hab. Western China.

Allied to *P. albifrons*, Moore.

Pericallia olivaria, sp. n.

Pale brown, striated and suffused with olivaceous; beyond the black discal spot there is an olive band crossing all the wings, the inner edge of this band is diffuse and the exterior elbowed below costa of primaries and obtusely angled on secondaries; there are indications of a pale wavy submarginal line on each wing intersecting an olivaceous cloud towards the inner and anal angles respectively; the apex of primaries and outer angle of secondaries are also clouded with olivaceous; secondaries have a blackish discal spot and there is a dark olive spot in the middle of submarginal line and a curved one at the costal end of the same line. Under surface yellow, powdered with reddish on inner area of primaries; outer marginal area of all the wings brownish, clouded with yellow towards apex and outer angle, and with greyish white towards inner and anal angles, the limiting line is dark brown edged outwardly with whitish.

Expanse 40-42 millim.

Four male specimens from Moupin, July.

Hab. Western China.

Pericallia crenularia, sp. n.

Brown tinged with lilacine. Primaries have a subbasal dusky line, curved towards costa and again towards inner margin; a concolorous central fascia outlined in brownish, the inner edge almost straight and the outer edge obtusely angled below costa and then inwardly oblique; submarginal line interrupted, most distinct towards costa. Secondaries have a dusky, waved, central line, edged inwardly with brownish and preceded by an obscure brownish shade and discal spot; submarginal line indistinct. Under surface yellow; outer marginal area limited by a strong blackish line. Fringes brown, crenulate. Vertex of head pure white.

Expanse 40 millim.

One male specimen from Omei-shan, July.

Hab. Western China.

Pericallia latimarginaria, sp. n.

Pale brown. Primaries: basal area suffused with darker and limited by a curved, wavy, blackish line; outer line blackish, parallel with outer margin as far as third median nervule, then turned inwards and curved from second to first median nervule, from which point it runs almost straight to inner margin, this line traverses a brownish shade which tapers from inner margin to costa; there is a brownish cloud on the outer margin below apex, and the space between this and the transverse shade is tinged with pinkish. Secondaries have the outer half brownish, tinged with pinkish towards margin, and traversed by a bidentate blackish line. All the wings have a black discal spot and an ill-defined, shaded, pale submarginal line. Under surface yellow; outer marginal area clouded with greyish brown, limited by a dark line and marked with whitish at angle of each wing; discal spots and transverse lines as above. Vertex of head white.

Expanse 36-40 millim.

Several specimens of each sex from Chang-yang and from Moupin, June and July.

Hab. Central and Western China.

Pericallia variaria, sp. n.

Pale greyish-brown, tinged with pinkish, freckled with fuscous and clouded with the latter colour, especially on the

basal area of secondaries and between the transverse lines of primaries. There are two transverse lines on primaries: the first is blackish, elbowed below costa, and slightly indented above inner margin; the second is rather oblique, double, except at each extremity, enclosing a paler area; beyond the second line there is a blackish quadrate blotch, the centre of which is filled in with pinkish; discal spot black. Secondaries have a black discal spot and an olivaceous crenulate band; submarginal band serrated, blackish, but not well-defined towards costa. Fringes fuscous, tinged with olivaceous. Under surface violet-grey, clouded and suffused with fuscous; primaries have a dusky band, elbowed below costa, before the middle, and a ferruginous-brown band bordered with darker beyond the middle; the space between these bands is marked with creamy white; submarginal line whitish; a broad and diffuse ferruginous patch extends from black discal spot to submarginal line, which it obscures at this point; secondaries have the basal area marked with creamy white: the transverse band appears to be a continuation of the outer one on primaries; submarginal band as above but dusky in colour. Outer margin of the wings, especially of secondaries, crenulate.

Expanse 36 millim.

One male specimen from Chia-ting-fu, July.

Hab. Western China.

Pericallia testacea.

Pericallia testacea, Butl. Trans. Ent. Soc. 1881, p. 405.

There were several specimens from Yesso in Pryer's collection. Fenton took the species at Tokio.

Hab. Japan and Yesso.

Genus *XYLOSCIA*.

(Warren, Novit. Zool. i. p. 462 (1894).)

Xyloscia subpersata.

Hemerophila subpersata, Feld. Reise Nov., Lep. v. pl. cxxv. fig. 16 (1875).

Xyloscia subpersata, Warren, Novit. Zool. i. p. 462 (1894).

Several specimens from Oiwake and Yokohama in Pryer's collection. I captured a female example at Gensan in July.

Hab. Japan and Corea.

Xyloscia biangularia, sp. n. (Pl. VI. fig. 5.)

Pale brown, sparingly irrorated with blackish; the basal

area of primaries and outer marginal area of all the wings suffused with violaceous brown. On the primaries the blackish line limiting the basal area is biangulate below costa and very oblique from median nervure to inner margin; outer line oblique, blackish, appearing to commence below apex in the undulated and diffuse blackish submarginal line and preceded by a slightly wavy brown line, which limits the outer marginal area. Secondaries have a brown central line followed by a blackish one parallel with it; submarginal line diffuse, blackish; all the wings have a black discal dot, but that on secondaries most conspicuous. Under surface similar to above, but the basal two-thirds of secondaries paler.

Expanse 37 millim.

One male specimen from Chang-yang, June.

Hab. Central China.

Closely allied to *X. subspersata*, Feld., but the transverse markings rather different, the outer line on primaries terminates on outer margin below the apex; outer margin of secondaries is slightly crenulate, with a distinct projection above the middle.

Genus *APERICALIA*, nov.

Palpi porrect, densely hairy, extending considerably beyond the frons. Antennæ of male bipectinated to apex. Posterior tibiæ not dilated, with all spurs present. Primaries have the outer margin slightly concave below apex, angled at fourth vein, thence oblique. Secondaries have the outer margin slightly angled at middle. Venation similar to that of *Pericallia*.

Type *A. bilinearia*, sp. n.

Apericallia bilinearia, sp. n.

Primaries whitish grey, tinged with lilacine and freckled and clouded with fuscous; the central area is traversed by two dusky-brown, almost blackish, lines: the inner one very slightly curved and the outer one oblique and followed by two blackish spots. Secondaries pale whitish brown, powdered with fuscous, and traversed by a dark brown line, which tapers towards but does not attain the costa. Fringes brown on primaries, grey on secondaries, merging into brown at anal angle. Under surface ochreous brown, freckled with blackish; transverse lines and markings generally as above, but the outer line of primaries is followed by a ferruginous patch on costa; the secondaries are whiter and have

a diffuse ferruginous central band which obscures the transverse line.

Expanse 36–40 millim.

Four male specimens and three females from Pu-tsu-fong and Moupin, June and July.

Hab. Western China.

Genus *HETEROCALLIA*, nov.

Palpi extending beyond the frons, clothed with long hair; antennæ of male setaceous; hind tibiæ dilated, all spurs present. Primaries with apex slightly produced, outer margin obtusely angled at middle. Secondaries with outer margin rounded, slightly emarginate above middle. Venation similar to that of *Pericallia*.

Type *H. truncaria*, sp. n.

Heterocallia truncaria, sp. n. (Pl. VI. fig. 1.)

Whitish-grey, tinged with violaceous, irrorated and clouded with fuscous. Primaries have three transverse dark-brown or blackish lines, the first not always clearly defined, all are curved below costa, and the third is recurved and dentate before inner margin; following the third line is a fuscous-brown band marked with darker brown below the upper curve, which is also deeper brown; submarginal line oblique, white towards costa, where it is interrupted and adjoins the fuscous-brown band. Secondaries have three fuscous bands, but these are only well-defined on the abdominal area. Fringes greyish, preceded by a series of black dots. Under surface pale greyish, irrorated with fuscous and suffused on the disk with ochreous; apical area of primaries clouded with brownish, submarginal line represented by three white dots: secondaries have two diffuse transverse bands, these are brown inclining to blackish on abdominal area, the outer one with a small elongate blackish spot about the middle.

Expanse 42 millim.

Occurs at Moupin, Ta-chien-lu, Pu-tsu-fong, and Che-tou in July. I received twelve specimens, including both sexes.

Hab. Western China.

Genus *PSYRA*.

(Walk.; Hampson, *Fauna Brit. Ind.*, Moths, iii. p. 221 (1895).)

Psyra rufolinearia, sp. n.

Whitish brown, with a faint ochreous tinge on the disk and irrorated with fuscous. Primaries have a sinuous red-

dish line, dotted with black on the nervures, before the middle; this does not extend to the costa, where it is represented by a black dot and an oblique reddish line, followed by a series of black dots on the nervules beyond the middle; there is also a short, interrupted blackish band from just before apex, and a similar one towards inner margin; the oblique line together with series of black dots are continued on the secondaries, and all the wings have a blackish discal dot and a marginal series of black dots. Fringes of the ground-colour. Under surface whitish-brown, irrorated with fuscous; outer marginal area with fuscous border, most clearly defined on the primaries; the secondaries have a dusky central line and two series of blackish dots, the outer series connected by a dusky lunulated line; marginal and discal dots as above.

Expanse 60 millim.

One female specimen from Moupin, July.

Hab. Western China.

Psyra cuneata.

Psyra cuneata, Walk. Cat. Lep. Het. xxi. p. 483 (1860); Hampson, Fauna Brit. Ind., Moths, iii. p. 223 (1895).

One male specimen from Wa-shan, two females from Putsu-fong, and a male from Japan in Pryer's collection.

Distribution. N.W. Himalayas; Sikhim; Khásis (*Hampson*); Japan; Western China.

Genus *FASCELLINA*.

(Walk. Cat. Lep. Het. xx. p. 215 (1860).)

Fascellina plagiata.

Geometra plagiata, Walk. Cat. Lep. Het. xxxv. p. 1601 (1866).

Fascellina plagiata, Hampson, Fauna Brit. Ind., Moths, iii. p. 226 (1895).

I have specimens from Ichang, Chia-ting-fu, Ta-chien-lu, and Omei-shan.

Distribution. Khásis (*Hampson*); Kulu, N.W. Himalayas; Central and Western China.

Genus *LEPTOMIZA*.

(Warr.; Hampson, Fauna Brit. Ind., Moths, iii. p. 228 (1895).)

Leptomiza calcearia.

Hyperythra calcearia, Walk. Cat. Lep. Het. xx. p. 132 (1860).

Leptomiza calcearia, Hampson, Fauna Brit. Ind., Moths, iii. p. 231 (1895).

One specimen from Moupin, July.

Distribution. N.W. Himalayas; Sikhim (*Hampson*); Western China.

Leptomiza dentilineata.

Selenia dentilineata, Moore, Lep. Atk. p. 228 (1887).

Leptomiza dentilineata, Hampson, Fauna Brit. Ind., Moths, iii. p. 231 (1895).

Heterolocha mediolimbata, Pouj. Ann. Soc. Ent. Fr. 1895, p. 308, pl. vi. figs. 3, 3 a.

One specimen received from Chang-yang, August; Poujade records an example from Moupin.

Distribution. Sikhim (*Hampson*); Central and Western China.

Leptomiza (?) lentiginosaria.

Collix lentiginosaria, Leech, Entom., Suppl. p. 55 (May 1891).

There were some specimens from Yokohama? and Gifu in Pryer's collection. I obtained examples of each sex at Hakodate in August, and received a female specimen from Chia-ting-fu, taken in July.

Distribution. Japan; Yesso; Western China.

Genus GARÆUS.

(Moore, Proc. Zool. Soc. Lond. 1867, p. 623.)

Garæus specularis.

Garæus specularis, Moore, Proc. Zool. Soc. Lond. 1867, p. 623, pl. xxxii. fig. 3; Hampson, Fauna Brit. Ind., Moths, iii. p. 233, fig. (1895).

Endropia mactans, Butl. Ann. & Mag. Nat. Hist. (5) i. p. 393 (1878); Ill. Typ. Lep. Het. iii. p. 30, pl. xlviii. fig. 3 (1879).

Garæus fenestratus, Butl. Trans. Ent. Soc. Lond. 1881, p. 404.

There were several specimens from Ohoyama and Nikko in Pryer's collection, and I received two examples from Chang-yang and one from Ichang.

Distribution. Sikhim; Japan; Central China.

This species is exceedingly variable both in colour and markings; in some specimens the hyaline spots are entirely absent. The range of colour is from pale yellowish brown to dark purplish brown. One of the Chang-yang specimens agrees with Hampson's figure of *G. specularis*, Moore.

Garæus argillaceus.

Pseudomiza argillacea, Butl. Ill. Typ. Lep. Het. vii. p. 100, pl. cxxxv. fig. 15 (1889).

Garæus argillaceus, Hampson, Fauna Brit. Ind., Moths, iii. p. 235 (1895).

One male specimen from Chia-ting-fu, Western China, July.

Distribution. Dalhousie; Dharmasála; Sikhim; Shillong (*Hampson*); Western China.

Genus NOTHOMIZA.

(Warren, Novit. Zool. i. p. 443 (1894).)

Nothomiza formosa.

Ellopiia formosa, Butl. Ill. Typ. Lep. Het. ii. p. 47, pl. xxxv. fig. 8 (1878).

Several specimens from Yokohama and Gifu in Pryer's collection.

I captured specimens in Satsuma in May and at Tsuruga and Nagahama in July. Mr. Smith took the species at Hakone in August.

Hab. Japan; Kiushiu.

Genus HETEROMIZA.

(Warren, Proc. Zool. Soc. Lond. 1893, p. 405.)

Heteromiza sanguiflua.

Cimicodes sanguiflua, Moore, Lep. Atk. p. 233, pl. viii. fig. 4 (1887).

Heteromiza flava, Hampson, Fauna Brit. Ind., Moths, iii. p. 236 (1895).

I have received specimens from Omei-shan, Moupin, and Chang-yang, June and July.

Hampson considers that *H. flava* is a form of *H. sanguiflua*, but I am inclined to regard them as distinct species.

Distribution. Khásis; Central and Western China.

Heteromiza flava.

Cimicodes flava, Moore, Lep. Atk. p. 233, pl. viii. fig. 5 (1887).

One male example from Moupin, July.

Distribution. Khásis (*Hampson*); Western China.

Heteromiza cruentaria.

Cimicodes cruentaria, Moore, Proc. Zool. Soc. Lond. 1867, p. 616; Waterh. Aid, pl. cli. fig. 6.

Heteromiza cruentaria, Hampson, Fauna Brit. Ind., Moths, iii. p. 237 (1895).

One example of each sex from Chang-yang, July.

Distribution. Western Himalayas; Khásis (*Hampson*); Central China.

Genus DALIMA.

(Moore, Proc. Zool. Soc. Lond. 1867, p. 614.)

Dalima variaria, sp. n.

Male. — Ochreous-brown, striated with purplish-brown. Primaries have a brownish diffuse band, which is angled below costa and traversed throughout its course by a wavy

silvery-white line, and terminates in a black quadrate spot on middle of the inner margin; submarginal band shade-like and obscure: secondaries have two purplish-brown bands, and between these there is an interrupted silvery-white line bordered with fuscous. All the wings have a dusky discal spot; fringes brown. Under surface orange, sparingly freckled with blackish; primaries have a black discal spot and a blackish wavy submarginal band, the latter interrupted towards costa, where it is represented by a round spot; secondaries have a black discal spot, preceded by a blackish abbreviated band from abdominal margin, and a blackish wavy submarginal band. Antennæ as in *D. acutaria*.

Female.—Cinnamon-brown; the markings as in the male, but less distinct.

Expanse, ♂ 52, ♀ 58 millim.

Four male specimens and one female from Moupin, Omei-shan, and Ta-chien-lu, June and July.

Var. grisearia, nov.

Purplish grey, deeper on the secondaries and outer marginal area of primaries; there are no purplish-brown striations; the transverse markings and discal spots are similar to those of the type, but the outer line of primaries is olive-brown.

Two male specimens from Omei-shan, July.

Var. albomaculata, nov.

Primaries ochreous brown, suffused with olive-brown, conspicuously so beyond the transverse line: secondaries purplish brown. Markings as in the type, but in addition there is a series of silvery-white lunules on the outer margin of primaries and a cloud of the same colour, interrupted by the nervules, in the angle of transverse line.

One male specimen from Pu-tsu-fong, July.

Hab. Western China.

Dalima obliquaria, sp. n.

Apex of primaries acute; secondaries have an angular projection above middle of outer margin. Pale reddish brown; first line of primaries rufous, undulated; second line indicated by a short rufous streak from costa and another on inner margin; third line rufous, running obliquely from apex to middle of the inner margin, where it terminates very close to the second line, a short outwardly oblique streak from the costa approaches the upper portion of this line; there are traces of a diffuse, dusky, submarginal band. Fringes darker.

Secondaries have two rufous lines and a diffuse submarginal band as on primaries. Under surface orange, speckled with fuscous grey; outer margins suffused with fuscous.

Expanse 52 millim.

One female specimen from Wa-ssu-kow, June.

Hab. Western China.

Dalima ochrearia, sp. n.

The apex of primaries is acutely produced and the secondaries have an angular projection above the middle of outer margin. Pale ochreous brown, tinged with pink, especially on the outer marginal areas of all the wings. Primaries have three brown spots on costa; beyond the middle there is a transverse yellowish line, sharply angled in the direction of the apex of the wing, and then oblique to inner margin, where it terminates slightly in advance of a dark quadrate spot placed on the middle of the margin; this line is outwardly bordered with olivaceous. Secondaries have a transverse yellowish line outwardly bordered with olivaceous and an indistinct dusky line nearer the base of the wing. In some specimens there are indications of a submarginal line on each wing. Under surface orange, freckled with fuscous.

Expanse 50-52 millim.

Several examples of both sexes from Moupin; Chia-ting-fu; Wa-shan; Pu-tsu-fong; Chang-yang: June and July.

The Chang-yang examples are tinged with olivaceous and have indistinct traces of basal and median transverse lines.

Hab. Central and Western China.

Dalima acutaria, sp. n.

The primaries are produced at apex and there is a slight projection on the outer margin of the secondaries below outer angle. Brownish grey, more or less tinged with rufous. Primaries have three short rufous-brown dashes on costa, from the first of which there are indications of a silvery-grey-edged transverse line to the inner margin, and from the third there is a line projected in the direction of outer margin, which, however, it does not reach, but turns sharply inwards and runs obliquely to middle of the inner margin; beyond this line, which is edged with yellowish, the wing is tinged with fuliginous. Secondaries have two central rufous-brown lines, the inner straight and the outer curved, the latter edged inwardly with yellowish. Fringes rufous-brown. Under surface orange, freckled with blackish; marginal area of all the wings suffused with dusky and limited inwards by a

blackish diffuse band. All the wings have a black discal spot on both surfaces. Antennæ of male serrate and fasciculate.

Expanse 56-64 millim.

Two male specimens from Pu-tsu-fong and one from Omei-shan, July.

The type described is rather browner in colour than the other specimens; this is probably due to its finer condition.

Hab. Western China.

Dalima columbinaria, sp. n.

Grey, with a tinge of lilacine. Primaries have two short transverse dashes on the costa and a transverse line beyond the middle, which is sharply angled below the apex of the wing, and then runs obliquely to the middle of the inner margin, where it is inwardly edged with silvery grey; discal spot blackish: secondaries have two slightly curved blackish or dark brown lines, the outer edged internally with silvery grey. All the wings have an interrupted dusky submarginal band-like shade. Fringes brown. Under surface orange, freckled with blackish; transverse markings of upper surface indicated in blackish.

Expanse 54-56 millim.

One male specimen from Omei-shan and one from Moupin, June and July.

Allied to *D. vulpinaria*, Moore.

Hab. Western China.

Dalima subferrugineata.

Drepanodes subferrugineata, Pouj. Ann. Soc. Ent. Fr. 1895, p. 307, pl. vi. figs. 2, 2 a.

Poujade records a female specimen taken by M. l'Abbé A. David at Moupin.

Hab. Western China.

Genus AMBLYCHIA.

(Guen. Phal. i. p. 214 (1857).)

Amblychia angeronaria.

Amblychia angeronaria, Guen. Phal. i. p. 215, pl. iv. fig. 9 (1857); Hampson, Fauna Brit. Ind., Moths, iii. p. 242 (1895).

One female specimen from Wa-shan, May.

Distribution. Sikkim; Assam; Ceylon (*Hampson*); Western China.

Genus CEPPHIS.

(Hübner; Meyrick, Trans. Ent. Soc. Lond. 1892, p. 118.)

Cepphis advenaria.

Geometra advenaria, Hübner. Beitr. ii. pl. iii. fig. Q; Geom. fig. 45; Esp. pl. xvi. figs. 1-3.

Cepphis advenaria, Hübner. Verz. Schmett. p. 294; Meyrick, Trans. Ent. Soc. Lond. 1892, p. 114.

Epione advenaria, Dup. Lép. vii. pl. cl. fig. 3; Guen. Phal. i. p. 97.

I captured specimens at Gensan in July and at Hakodate in August.

Distribution. Europe; Amur; Japan; Yesso; Corea.

Cepphis (?) laterinata.

Numeria laterinata, Pouj. Ann. Soc. Ent. Fr. 1895, p. 312, pl. vi. fig. 13 (= *N. lateritiaria*, Pouj. Bull. Muséum, février 1895).

Poujade records a male specimen from Moupin. I have two males from that locality taken in July, and one from Huang-mu-chang taken in August.

Hab. Western China.

Genus HYPERYTHRA.

(Guen.; Hampson, Fauna Brit. Ind., Moths, iii. p. 218 (1895).)

Hyperythra khasiana.

Calopyrrha khasiana, Swinh. Ann. & Mag. Nat. Hist. (6) xii. p. 221 (1893).

Hyperythra phoenix, Swinh., Hampson, Fauna Brit. Ind., Moths, p. 219 (1895).

Two males from Omei-shan and a female from the province of Kwei-chow, July.

The female has a slight olivaceous tint, but the males are pinkish and yellow.

Distribution. Sikhim; Khásis; Nágas (Hampson); Western China.

Genus ANTHYPERYTHRA.

(Warren, MS.; Swinhoe, Trans. Ent. Soc. Lond. 1891, p. 485.)

Anthyperythra hermearia.

Anthyperythra hermearia, Swinh. Trans. Ent. Soc. Lond. 1891, p. 485, pl. xix. fig. 9.

One male specimen from Omei-shan, July.

Distribution. Khásis; Western China.

Genus CORYPHA.

(Walk. Cat. Lep. Het. xx. p. 270 (1860).)

Corypha incongruaria.*Corypha incongruaria*, Walk. Cat. Lep. Het. xx. p. 270 (1860); Bull. Ill. Typ. Lep. Het. p. 31, pl. xlviii. fig. 6 (1879).

I obtained specimens in Satsuma in May and at Tsuruga in July, and my native collector took the species in the island of Kiushiu and at Ningpo.

Distribution. Japan; Kiushiu; N. China.

Genus AUAXA.

(Walker, Cat. Lep. Het. xx. p. 271 (1860).)

Auaxa sulphurea.*Bizia sulphurea*, Butl. Ill. Typ. Lep. Het. ii. p. 47, pl. xxxv. fig. 10 (1878).

Several specimens from Yokohama and Oiwake in Pryer's collection. I took this species in Satsuma in May, at Tsuruga in June, and at Nagasaki and Gensan in July. I have also received specimens from Chang-yang, Omei-shan, and Moupin, June and July.

The basal line and discal spot of primaries are variable characters in this species; in some of my specimens both are absent.

Distribution. Japan; Corea; Central and Western China.

Probably identical with *Auaxa cesadaria*, Walk., from China, the type of which I have not been able to discover.

Genus BIZIA.

(Walk. Cat. Lep. Het. xx. p. 261 (1860).)

Bizia æxaria.*Bizia æxaria*, Walk. Cat. Lep. Het. xx. p. 261 (1860); Butl. Ill. Typ. Lep. Het. iii. p. 31, pl. xlviii. fig. 5 (1879).*Endropia mibuaria*, Feld. Reise Nov. v. pl. cxxiii. fig. 31 (1875).

Several specimens from Yokohama in Pryer's collection. I obtained the species at Tsuruga and Gensan in July, and Mr. Smith took it at Hakone in August. I have also received specimens from Ichang, Chang-yang, Kiukiang, Omei-shan, Chia-ting-fu, and the province of Kwei-chow, June and July.

Fairly constant in colour and markings, but varies in size.

My smallest male specimen expands 44 millim. and largest female 72 millim.; the latter is from Chang-yang.

Distribution. Japan; Yesso; Corea; Western and Central China.

Genus COLOTOIS.

(Hübner. Verz. Schmett. p. 288.)

Colotois pennaria.

Phal. Geometra pennaria, Linn. Faun. Suec. 324.

Geometra pennaria, Esp. pl. xviii. figs. 4-6; Hübner. Geom. fig. 14.

Colotois pennaria, Hübner. Verz. Schmett. p. 288; Meyrick, Trans. Ent. Soc. 1892, p. 114.

Himera pennaria, Dup. Léop. vii. pl. cxlvi. figs. 1, 2; Guen. Phal. i. p. 182.

There was one male specimen in Pryer's collection.

Distribution. Europe; Amur; Japan.

Genus ENNOMOS.

(Treit.; Meyrick, Trans. Ent. Soc. Lond. 1892, p. 114.)

Ennomos autumnaria.

Geometra autumnaria, Wernb. Stett. ent. Zeit. 1859, p. 361.

Geometra alniaria, Esp. Schmett. v. pl. ix. figs. 1-6; Hübner. Geom. fig. 26.

Eugonia alniaria, Hübner. Verz. Schmett. p. 291.

Ennomos alniaria, Treit. Schmett. vi. i. 79; Guen. Phal. i. p. 175.

Ennomos autumnaria, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 115.

A few examples from Oiwake and Yesso in Pryer's collection.

Distribution. Europe; Ural; Amur; Japan, Yesso.

Genus CROCALLIS.

(Treit.; Hampson, Fauna Brit. Ind., Moths, iii. p. 231 (1895).)

Crocallis acutaria, sp. n.

Primaries pale yellowish brown, sprinkled and suffused with darker; a dark brown line inwardly edged with whitish commences on costa near apex and terminates on inner margin one third from outer angle; a black spot on outer margin in each nervular interspace: secondaries pale brown, slightly suffused with darker within the brownish central line, which becomes indistinct towards costa. All the wings have a dark discal spot, annular on primaries. Fringes brown, paler on

secondaries. Under surface whitish brown, with dark markings of upperside faintly reproduced.

Expanse 48 millim.

One example of each sex from Chang-yang, July.

This species is very like the paler forms of *C. arida*, which also occurs in China, but the apex of primaries is acutely produced, especially in the female, and the outer margin is not scalloped between apex and the angular projection. The transverse line, too, is oblique, not curved in the least, and starts from a point on costa much nearer to the apex.

Hab. Central China.

Crocallis arida.

Nipponissa arida, Butl. Ann. & Mag. Nat. Hist. (5) i. p. 394 (1878)

Ill. Typ. Lep. Het. iii. p. 31, pl. xlviii. fig. 7 (1879).

Crocallis obliquaria, Hampson, Fauna Brit. Ind., Moths, iii. p. 232 (1895).

There were several specimens in Pryer's collection from Yokohama and Oiwake. I have also received the species from Kiushiu, taken by a native collector, and I met with it at Oiwake and Nikko in September.

My collectors in Western China obtained it at Moupin, Pu-tsu-fong, and Chow-pin-sa in June, but only single specimens in each locality. The Moupin example agrees in colour with the Japanese specimens, but the others are much darker.

Distribution. Japan; W. China.

Crocallis (?) *acuminaria*, sp. n.

Ochreous brown. Primaries traversed by two blackish transverse lines, the first almost straight and the second oblique, angled near costa and outwardly edged with whitish; there is a semihyaline spot on costa extending to angle of second line and intersected by nervule; discal spot black: secondaries have an incomplete waved central blackish band, a faint discal spot, and a dusky cloud at anal angle. Under surface light brown; primaries marked as above, but the transverse lines are finer and the second is followed by some blackish dots on the neuration, instead of being edged with whitish: secondaries freckled with brownish grey; transverse band extends only to discal spot, and there are indications of a submarginal line.

Expanse 40 millim.

One female specimen from Che-tou, July.

Hab. Western China.

Genus PACHYLIGIA.

(Butler, Ann. & Mag. Nat. Hist. (5) i. p. 442 (1878).)

Pachyligia dolosa.

Pachyligia dolosa, Butl. Ann. & Mag. Nat. Hist. (5) i. p. 442 (1878);
Ill. Typ. Lep. Het. p. 50, pl. liii. fig. 5 (1879).

Several specimens from Yokohama in Pryer's collection.

Hab. Japan.

Pachyligia modesta.

Pachyligia modesta, Butl. Ann. & Mag. Nat. Hist. (5) i. p. 443 (1878);
Ill. Typ. Lep. Het. iii. p. 50, pl. liii. fig. 6 (1879).

♀. *Cymatophora tristis*, Leech, Proc. Zool. Soc. 1888, p. 652, pl. xxxii.
fig. 8.

Several specimens from Yokohama in Pryer's collection.

There were two females of this species among Pryer's unidentified insects; one of these I erroneously described as a distinct species under the name *Cymatophora tristis*.

Some of the specimens are unicolorous, others have a darker central band.

Hab. Japan.

Genus ZETHENIA.

(Motsch. Etud. Ent. p. 34 (1860).)

Zethenia rufescentaria.

Zethenia rufescentaria, Motsch. Etud. Ent. p. 35 (1860).

Zettienia rufescentaria, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 102.

Several specimens from Yokohama in Pryer's collection.

I captured examples of the type form at Gensan, and my native collector obtained the species at Hakodate in June.

There are two distinct colour-forms of this species; one is of the typical brownish, the other is pale whitish grey, with space between the inner and outer lines filled in with blackish. I took specimens of this form, for which I propose the varietal name *grisearia*, at Nagasaki in May and Fushiki in July. There was one example of this form in Pryer's collection.

Hab. Japan, Yesso, Kiushiu, and Corea.

Zethenia contiguaris, sp. n.

Somewhat similar in appearance to *Z. rufescentaria*, Motsch., but darker in colour. The first line of primaries is angulated below the costa; the wavy second line is dotted with black on the neuration as in *Z. rufescentaria*, but it is inwardly edged

with whitish towards inner margin and is preceded and followed by a diffuse fuscous-brown transverse band; discal spot black: secondaries have a black discal spot and a wavy blackish transverse line, the latter preceded and followed by fuscous-brown bands as on primaries. Underside paler, markings very similar to those of upper surface.

Expanse 42-44 millim.

Several specimens from Ichang, Chang-yang, Moupin, Omei-shan, Chia-ting-fu, and the province of Kwei-chow: July.

Hab. Central and Western China.

Zethenia albonotaria.

Selenia albonotaria, Brem. Lep. Ost-Sib. p. 73, pl. vi. fig. 16 (1864).

Zettienia albonotaria, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 102.

Several specimens from Yokohama in Pryer's collection.

I obtained the species at Nagasaki, Ningpo, and in Satsuma in April and May. My native collector captured examples at Hakodate in June.

One of the specimens from Ningpo and one from Nagasaki seem to agree with *consociaria*, Christ.

Distribution. E. Siberia; Japan; Yesso; Kiushiu; North China.

Genus SELENIOPSIS.

(Warr. Novit. Zool. i. p. 462 (1894).)

Seleniopsis evanescens.

Endropia evanescens, Butl. Trans. Ent. Soc. Lond. 1881, p. 404.

Seleniopsis evanescens, Warr. Novit. Zool. i. p. 462.

There were specimens from Yokohama, Ohoyama, and Nikko in Pryer's collection. I captured the species at Hakodate in August, and my native collector took it in the island of Kiushiu.

Hab. Japan, Yesso, and Kiushiu.

Seleniopsis grisearia, sp. n.

Greyish white. Primaries powdered with darker grey; discoidal spot black, linear; beyond this, on the costa, is an almost white spot followed by a small blackish cloud: secondaries powdered with darker grey on abdominal margin, especially towards anal angle, where there are traces of two dark transverse lines. Fringes dark grey, spotted with blackish

at the ends of the nervules. Under surface brownish grey, tinged with violet; outer margin of primaries bordered with violet-grey, costal area striated and powdered with brown, discoidal and costal spots as above, but the latter is surrounded with black; secondaries are freckled with brownish and clouded with violet-grey below the black linear discoidal spot; above the anal angle there is a short whitish diffuse line, edged inwardly with violet-grey.

Expanse 38 millim.

One male specimen from Moupin, July.

Hab. Western China.

Closely allied to *S. evanescens*, Butl., and perhaps only a local form of that species.

Genus ANONYCHIA.

(Warr. Proc. Zool. Soc. Lond. 1893, p. 412.)

Anonychia grisea.

Nadagra grisea, Butl. Proc. Zool. Soc. Lond. 1883, p. 172.

Onychia grisea, Swinhoe and Cotes, Moths of India, p. 574 (1887).

Anonychia grisea, Hampson, Fauna Brit. Ind., Moths, iii. p. 178 (1895).

I have specimens from Moupin, Ta-chien-lu, Pu-tsu-fong, Wa-ssu-kow, taken in June and July.

Distribution. N.W. Himalayas; Sikkim; Khásis (*Hampson*); Western China.

Anonychia latifasciaria, sp. n.

Allied to *A. grisea*, Butl. Primaries greyish, powdered and freckled with brownish; the central band, which is intersected by a blackish sinuous line, is broad and darker, especially towards the edges; the inner edge of the band is curved about the middle; submarginal line diffuse, pale, wavy: secondaries fuscous grey, with a blackish, central, slightly curved line. Under surface fuscous grey; costa yellowish, freckled with black; the primaries have a blackish discal spot and a series of spots on the neururation beyond; secondaries are much freckled and have a discal spot and a series of spots as on primaries. Fringes grey, darker at their base and marked with blackish at extremities of the nervules.

Expanse 32 millim.

Occurs at Omei-shan, Pu-tsu-fong, Ni-tou; I have one male specimen from each locality: July.

Hab. Western China.

Anonychia præditaria, sp. n. (Pl. VI. fig. 4.)

Light brown. Basal half of primaries suffused with fuliginous and coarsely striated with blackish; there is a wavy blackish subbasal line and a curved one beyond, the latter increases in width towards costa, where it is almost black; limiting the basal half of the wing is a broad fuliginous undulated band, the outer edge of which is outlined with whitish and has an obtuse projection above its centre; there is a short transverse blackish streak from the costa before apex, and the outer margin is suffused with fuliginous. Secondaries have the basal two thirds suffused with blackish and limited by a pale line, which has a small bidentate projection about the middle; beyond this there is a series of dusky dots. All the wings have a blackish discal spot. Fringes of the ground-colour, chequered with darker. Under surface light brown, with a pinkish tint: primaries have a second line and the broad band of upper surface reproduced. Secondaries have the basal two-thirds limited by a series of black dots, and striated and freckled with blackish.

Expanse 42 millim.

One example of each sex from Moupin, and two males from Pu-tsu-fong, July.

Hab. Western China.

Allied to *A. mendica*, Butl.

Anonychia anomala.

Cidaria (?) *anomala*, Butl. Trans. Ent. Soc. Lond. 1881, p. 425.

Butler states that this appears to be a tolerably common species at Tokio. It was not represented in Pryer's collection, neither did I meet with it in any part of Japan that I visited.

I have a specimen from Pu-tsu-fong, taken in June or July, which seems to be referable to this species, but the markings on primaries are more pronounced.

Distribution. Japan; Western China.

Anonychia mendica.

Cidaria mendica, Butl. Ann. & Mag. Nat. Hist. (5) iv. p. 446 (1879).

There were four specimens from Nikko and Ohoyama in Pryer's collection. I took one example at Hakodate in August, and Mr. Smith one at Hakone in the same month. I have also received a male from Chang-yang.

In the Chinese specimen the outer edge of central fascia is bolder in outline.

Distribution. Japan; Yesso; Central China.

Genus EURYMENE.

(Dup. Cat. Lép. Eur. p. 220 (1844).)

Eurymene dolabraria.

Phal. Geometra dolabraria, Linn. Syst. Nat. xii. 861.

Geometra dolabraria, Esp. pl. 15. figs. 1, 2; Hübn. Geom. fig. 42.

Eurymene dolabraria, Dup. Lép. vii. pl. 148. fig. 5; Guen. Phal. i. p. 145.

Metrocampa dolabraria, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 112.

There were four very typical specimens from Yesso in Pryer's collection.

Distribution. Europe; Yesso.

Eurymene subpurpuraria, sp. n.

Pale brown. Primaries tinged with violet on the central and basal areas; there are three more or less quadrate marks on the costa, and there are some black dots on the third median nervule, at end of cell, and on nervule above. Secondaries have a blackish central band, but this is only distinct towards abdominal margin; there are some black dots as on primaries: all the wings have an indistinct blackish discal spot. Fringes pale brown chequered with slightly darker brown. Under surface: primaries buff, clouded, except on apical area, with reddish brown, and suffused with violet-grey; the costa is marked with reddish brown and whitish; secondaries clouded with brownish and blackish, the latter confined to the anal and central areas; a blackish discal spot on all the wings.

Expanse 50 millim.

One male specimen from Pu-tsu-fong, June.

Hab. Western China.

Genus PRIONIA.

(Hübn. Zutr. iv. p. 40; Hampson, Fauna Brit. Ind., Moths, iii. p. 175 (1895).)

Prionia paupera.

Osicerda paupera, Butl. Trans. Ent. Soc. Lond. 1881, p. 418.

A nice series in Pryer's collection, taken at Gifu and Oiwake.

Hab. Japan.

Prionia rosearia.

Prionia rosearia, Leech, Entom., Suppl. p. 56 (May 1891).

I obtained six specimens, including both sexes, in the Snowy valley, Ningpo, April.

The first of the central lines is not always clearly defined in some specimens.

There is an un-named example of this species, labelled "Chekiang," in the National Collection.

Hab. North China.

Genus *HETEROLOCHA*.

(Led. Verh. zool.-bot. Ges. Wien, iii. p. 207 (1853); Hampson, Fauna Brit. Ind., Moths, iii. p. 179 (1895).)

Heterolocha falconaria.

Aspilates falconaria, Walk. Cat. Lep. Het., Suppl. v. p. 1665 (1866).

Heterolocha falconaria, Hampson, Fauna Brit. Ind., Moths, iii. p. 179 (1895).

Two male specimens from Pu-tsu-fong and one female from Che-tou, July.

Distribution. N.W. Himalayas, Sikhim, Punjab (*Hampson*); Western China.

Heterolocha latifasciaria, sp. n.

Closely allied to *H. subroseata*, but the outer margin of secondaries is rounder in contour. The oblique band of primaries is marked towards costa with dusky spots, as in *H. falconaria*, Walk., but there is no apical spot as in *H. apiciaria*, and the band of secondaries is broader and more distinctly purple towards abdominal margin. The markings on under surface are purplish, with a slight grey tinge.

Expanse 32-34 millim.

Two male specimens from Ichang and one female from Chang-yang, June and July.

Hab. Central China.

Heterolocha subroseata.

Heterolocha subroseata, Warren, Novit. Zool. i. p. 449 (1894).

A long series from Chang-yang, Moupin, Omei-shan, and the Province of Kwei-chow, June and July.

In some specimens the upper surface is more or less irrorated with fuscous, especially on the outer marginal area.

The markings are subject to modification as regards development: sometimes the basal patch of primaries is only indicated by a fuscous spot on costa, and the oblique transverse band is entirely absent; in these specimens, however, the purple patch on inner margin remains. In other examples the oblique band is well defined, but the marginal patch is eliminated.

Expanse ranges from 31–41 millim.

Distribution. Japan (Warren); Central and Western China.

Heterolocha stulta.

Hyperythra stulta, Butl. Ann. & Mag. Nat. Hist. (5) iv. p. 370 (1879).

A fine series from Ohoyama and Oiwake in Pryer's collection.

Varies in the intensity and definition of markings.

Hab. Japan.

Heterolocha notata.

Heterolocha stulta, var. *notata*, Warren, Novit. Zool. i. p. 449 (1894).

Male.—Primaries straw-colour, irrorated, especially on the costal and outer marginal areas, with fuscous; basal patch, a band before the discal spot, and one beyond pinkish, the latter attenuated towards costa, and followed by a pink-tinged fuscous transverse cloud. Secondaries straw-colour, paler towards costa and irrorated with fuscous; beyond the dusky discal spot there is a pinkish band, which does not reach the costa; a transverse pink-tinged fuscous band before outer margin. Under surface: primaries yellowish, irrorated with pinkish grey, whitish on inner marginal area. Secondaries whitish, irrorated with pinkish grey, yellowish on costal area; the transverse markings of upperside are reproduced but are not distinct.

Female.—Rather paler in colour.

Expanse 30–32 millim.

A number of male specimens from Chang-yang and Ichang, chiefly from the first-named locality, whence four females were also received, June.

Varies considerably in the intensity of the pinkish markings. In some examples these are very pronounced, whilst in others they are, to a greater or lesser extent, obsolescent. In one or two specimens the primaries are tinged with brownish.

Distribution. Japan (Warren); Central China.

Heterolocha fuscofasciaria, sp. n.

Whitish, irrorated with fuscous. Costal area of primaries suffused with brownish, and the basal area with fuscous grey; annular discal spot and oblique band fuscous grey, the latter commencing before the apex. Secondaries have a fuscous-grey central band. Fringes agree in colour with the bands. Under surface similar to above.

Expanse 26 millim.

One male specimen from Ichang, April.

Hab. Central China.

Nearly allied to *H. notata*.

Heterolocha aristonaria.

Hyperythra (?) *aristonaria*, Walk. Cat. Lep. Het. xx. p. 130 (1860).

Hyperythra niphonica, Butl. Ill. Typ. Lep. Het. ii. p. 46, pl. xxxv. fig. 2 (1878).

There was a nice series of both forms in Pryer's collection. I have also received examples of the typical form from Ichang and Chang-yang, and from the Province of Kweichow.

At Nagasaki I took the species in May, and afterwards met with it at Gensan in June, at Tsuruga in July, and at Hakodate in August.

This species is closely allied to, if it is not identical with, *H. laminaria*, Herr.-Sch., from Armenia.

Niphonica, Butl., cannot be specifically separated from *aristonaria*, Walk. Some of the specimens from Japan have the yellow colour of *aristonaria*, but the outer portion of all the wings, beyond the second line, is grey, as in *niphonica*; in other examples the marginal area is purplish red.

The males vary in size from 20 to 35 millim.

Distribution. Japan; Yesso; Corea; North, Western, and Central China.

Heterolocha rosearia, sp. n.

Yellow. Primaries pale pinkish on basal area, there is a tapered band of the same colour on the lower portion of outer marginal area; the costa is finely dotted and marked with black, and there is a pinkish apical spot edged inwardly with blackish. Secondaries have an ill-defined pale pinkish subbasal band, and the outer margin is broadly bordered with pale pinkish, except at outer angle; both this and the band on primaries inwardly edged with dusky.

Under surface bright yellow: primaries have the inner margin whitish; a purplish-red dash at base of costa, a subbasal cloud, a spot at apex, and a cloud on inner margin near angle: secondaries have a subbasal band and a broad central one; the latter, and also the cloud on inner margin of primaries, suffused with greyish. All the wings have a discal spot of the same colour as the other markings.

Expanse 26 millim.

One male specimen from Chang-yang, July.

Hab. Central China.

Closely allied to *H. aristonaria*.

Heterolocha marginaria, sp. n.

Sordid yellow, irrorated with purplish fuscous, especially on secondaries. Primaries have a pale purplish basal patch, and a border on outer margin of the same colour, the latter tapers towards apex and has a brownish circular patch on it at inner margin; discal spot dusky, indistinct. Secondaries have a purplish discal spot and central band. Under surface yellow, irrorated and mottled with fuscous mixed with purplish red: primaries have an outwardly diffuse oblique band from apex, an annular discal spot, and an irregular-shaped subbasal patch, all purplish red; secondaries have a purplish-red discal spot and central band.

Expanse 34 millim.

One male specimen from Moupin, July.

Hab. Western China.

Heterolocha quadraria, sp. n.

(Pl. VI. fig. 8.)

Primaries olive-yellow, traversed by two blackish lines, each commencing in a black, more or less quadrate, spot on the costa, the first is almost straight and the second is twice angled below costa, thence obliquely wavy and edged outwardly with whitish to inner margin, where it expands into a blotch. Secondaries yellowish, freckled with violet-grey and traversed by a band of the same colour; the abdominal margin and anal angle are tinged with olive-yellow. Fringes of primaries concolorous, except towards apex, where they are dark; fringes of secondaries violet-grey, except at anal angle, where they are yellowish green. Under surface brownish: primaries suffused with fuscous; costal and outer marginal areas clouded with yellow; there are two diffuse dusky bands, corresponding in position with the lines of

upper surface: secondaries clouded with ferruginous, except on abdominal margin, and traversed by a dusky band. All the wings have a blackish discal spot on both surfaces. Head and thorax concolorous with primaries; abdomen agrees with secondaries above.

Expanse 32 millim.

One male specimen from Pu-tsu-fong, June. Three male specimens, Chang-yang, Pu-tsu-fong, Che-tou: July. McArthur took a specimen at Narkundah in April.

Distribution. Central and Western China; North-west Himalayas.

Heterolocha patalata.

Heterolocha patalata, Feld. Reis. Nov. pl. 132. figs. 9, 9 a (1874); Hampson, Fauna Brit. Ind., Moths, iii. p. 180 (1895).

Two male specimens received from Ta-chien-lu, June.

Distribution. Rampur; Khásis (*Hampson*); Western China.

Heterolocha phænicotæniata.

Aspilates phænicotæniata, Koll. Hüg. Kasch. iv. p. 487 (1848).

Heterolocha phænicotæniata, Feld. Reis. Nov. pl. 133. figs. 6, 6 a (1874); Hampson, Fauna Brit. Ind., Moths, iii. 179 (1895).

One example from Japan in Pryer's collection.

Distribution. N.W. Himalayas (*Hampson*); Japan (*Pryer*).

Heterolocha grata.

Epione grata, Butl. Ann. & Mag. Nat. Hist. (5) iv. p. 369 (1879).

Gynopteryx lapidea, Butl. Trans. Ent. Soc. 1881, p. 403.

There were a number of specimens from Oiwake and Gifu in Pryer's collection, and amongst them examples of the larger and rather purplish-grey form *lapidea*, Butl.

Hab. Japan.

Genus VENILIA.

(Dup.; Hampson, Fauna Brit. Ind., Moths, iii. p. 180 (1895).)

Venilia triangulum.

Caustoloma triangulum, Oberth. Etud. d'Entom. xi. p. 32, pl. ii. fig. 5 (1886).

Oberthür does not refer to the sex of his type. I have a

series from Ta-chien-lu, where the specimens were taken in May and June. The sexes do not differ either in colour or marking.

Hab. Western China.

Venilia Oberthuri.

? *Caustoloma oberthuri*, Alph. Iris, viii. p. 201 (1895).

A nice series, including both sexes, from Ta-chien-lu, Pu-tsu-fong, and How-kow: June and July.

Hab. Western China and Thibet.

Venilia flavaria, sp. n.

(Pl. VI. fig. 12.)

Similar to *V. triangulum*, Oberth., but the ground-colour is darker yellow, especially on secondaries; the brown marking on primaries is not continued along the inner margin to base; the band on secondaries is more pronounced and is continued as a short broadish streak along the abdominal margin. The dark costal border is uniformly straight, and not inwardly expanded about the middle as in *V. triangulum*.

One example of each sex from Chow-pin-sa, and a male from Pu-tsu-fong, June.

Hab. Western China.

Venilia lozonaria.

Caustoloma lozonaria, Oberth. Etud. d'Entom. xviii. p. 24, pl. iv. fig. 57.

A series received from Pu-tsu-fong, Che-tou, Omei-shan, Ta-chien-lu: June, July, and August.

Hab. Western China.

Venilia (?) *invenustaria*, sp. n.

Whity brown, faintly striated with pale ferruginous on both surfaces.

Expanse 30 millim.

One female specimen taken by myself at Gensan in June.

Hab. Corea.

Genus LOZOGRAMMA.

(Stephens, Ill. Brit. Ent., Haust. iii. p. 258 (1829).)

Lozogramma petrarica.

Geometra petrarica, Hübn. Geom. fig. 113; Esp. v. pl. 49. fig. 1.

Lozogramma petrarica, Steph. Ill. Brit. Ent., Haust. iii. p. 259.

Panagra petraria, Guen. Phal. ii. p. 132.

Pseudopanthera petraria, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 117.

Several specimens from Oiwake, Gifu, Nikko, and Yesso in Pryer's collection. A few examples were taken by my native collector at Hakodate and in the island of Kiushiu in June and July, and I have also received specimens from Ichang, Chang-yang, and Chia-ting-fu, where they were taken in June.

Distribution. Europe; Armenia; Amur; Japan; Yesso; Central and Western China.

Genus LOXASPILATES.

(Warren, Proc. Zool. Soc. Lond. 1893, p. 413.)

Loxaspilates obliquaria.

Aspilates obliquaria, Moore, Proc. Zool. Soc. Lond. 1867, p. 649.

Loxaspilates obliquaria, Hampson, Fauna Brit. Ind., Moths, iii. p. 181 (1895).

Eusarca subfalcata, Pouj. Ann. Soc. Ent. Fr. 1895, p. 312, pl. 7. figs. 14, 14 a.

I received specimens of this exceedingly variable species from Moupin, Omei-shan, Pu-tsu-fong, Ta-chien-lu, and from How-kow. Poujade records a female specimen from Moupin.

Distribution. Afghanistan; N.W. Himalayas; Sikhim (*Hampson*); Western China; Thibet.

Loxaspilates straminearia, sp. n.

Primaries pale straw-colour, sparsely irrorated with brownish; there are indications of two brownish transverse lines (one on each side of the blackish discal dot), most distinct towards costa and inner margin; submarginal line wavy, but indistinct, and marked with blackish above the middle; fringes of the ground-colour, preceded by a series of blackish dots. Secondaries whitish, with a brownish patch rather below the middle of abdominal margin, and a smaller one near anal angle; fringes as on primaries. Under surface pale straw-colour: primaries have the basal half of the costal area suffused with fuscous and irrorated with the same colour beyond; there is an oblique fuscous transverse line marked with black on the costa, and the discal spot is blackish: secondaries sparsely irrorated with fuscous; the discal spot

is blackish and there are two fuscous bands beyond, both becoming indistinct towards costa.

Expanse 36 millim.

One male specimen from the summit of Omei-shan, July.

Hab. Western China.

Loxaspilates nigromacularia, sp. n.

Whitish, sparsely irrorated with blackish on primaries and fuscous on secondaries. Primaries have two black transverse lines: the first is biangulate, and the second inwardly dentate and bordered outwardly with olivaceous brown; there is a rather large black discal spot; the submarginal line is indicated by a short black dash from costa, a >-shaped mark just below, and a similar mark towards inner margin. Secondaries have a blackish discal dot and dusky central band, the latter becoming indistinct towards costa. Fringes of the ground-colour, preceded on primaries by a series of black lunules. Under surface whitish: primaries suffused with fuliginous on basal two-thirds, markings of upper surface reproduced in dusky.

Expanse 34 millim.

One male specimen from Pu-tsu-fong, June.

Hab. Western China.

Loxaspilates (?) *trilineararia*, sp. n.

Primaries brown, with three silvery-white transverse lines each inwardly edged with dark brown; the first line is slightly oblique, the second is curved and recurved, and the third is biangulate; discal dot blackish. Secondaries whitish, irrorated and lined with brownish on abdominal margin, and suffused with the same colour towards outer margin; discal dot blackish. Fringes brown, rather paler on secondaries. Under surface whitish, sparingly irrorated with brownish, and tinged with the same colour on costal and outer marginal areas of primaries; all the wings have a blackish discal dot; the transverse lines of primaries are faintly reproduced and the secondaries have a dark brown submarginal band.

Expanse 34 millim.

One female specimen from Wa-shan, June.

Hab. Western China.

[To be continued.]



Leech, John Henry. 1897. "XXIII.—On lepidoptera heterocera from China, Japan, and Corea." *The Annals and magazine of natural history; zoology, botany, and geology* 19, 180–235. <https://doi.org/10.1080/00222939708680528>.

View This Item Online: <https://www.biodiversitylibrary.org/item/63495>

DOI: <https://doi.org/10.1080/00222939708680528>

Permalink: <https://www.biodiversitylibrary.org/partpdf/59621>

Holding Institution

University of Toronto - Gerstein Science Information Centre

Sponsored by

University of Toronto

Copyright & Reuse

Copyright Status: NOT_IN_COPYRIGHT

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.