
[Read February 1st, 1882.]

Last year I received from the Rev. Thomas Blackburn a letter (dated 4th July), in which he says:—“I have an unexpected opportunity of sending a parcel to London by the hands of a friend who is going home by the overland mail this month; so avail myself of it to send you another small collection of Hawaiian Lepidoptera consisting of nineteen specimens. Unfortunately of most of these there is only one specimen, but they represent the rarities par excellence, as far as my experience goes; indeed of many of them I have only a single specimen retained for my own collection as type. After having for five years failed to get more than two or three specimens, it seems little use waiting longer. If I should have the good fortune to meet with a few more specimens of any, I would not fail to remember your needs.”

About a month later the box of specimens came to hand, but the constant ingress of larger collections requiring immediate attention has rendered it impossible until now for me to undertake the identification of Mr. Blackburn’s specimens.

The collection consists of two butterflies and twenty-three moths referable in all to nineteen species, principally of the Micro-Lepidoptera (in Staudinger’s sense).

**RHOPALOCERA.**

**LYCÉNIDÆ.**

1. *Polyommatus bæticus* (No. 170).


A pair.

“From memory I take this to be *P. bæticus*, but am not sure. I have bred it from larvae feeding in pods of

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what appears to be a *Melilotus*. The following is a description of the larva:—

"Obscure olive-green, pretty thickly sprinkled with short hairs (much the appearance of a bristly surface badly shaved); dorsal and subdorsal lines and the region included obscurely rosy; head testaceous, bearing a black V-shaped mark, which points backwards; the rosy markings vary in intensity, as also the ground colour; legs of the ground colour; spiracles white. Onisciform."—T. B.

**HETEROCERA.**

Before proceeding to the moths it may be useful to record the probability that Wallengren's *Anthæcia inflata* (Wien. Ent. Monatschr. 4, p. 172), is a *Heliocheilus* (Felder); it is said to occur at Honolulu, but examples have not yet been sent home by Mr. Blackburn.

**LEUCANIIDÆ.**

2. *Leucania extranea* (No. 167).

*Leucania extranea*, Guenée, Noct. i. p. 77, n. 104 (1852).

The male example now sent is very different from typical specimens of the species, the primaries being less acute at apex, of a deeper colour, and crossed by three ill-defined greyish bands, but the ordinary markings are all present and well defined. Until, therefore, I am able to examine and compare carefully the whole of our very extensive series of specimens referred to this species, and can thereby decide whether they represent one widely distributed and variable species, or a number of allied geographical species, it will be premature to regard the Hawaiian form as distinct. Mr. Blackburn speaks of it thus:—"Apparently rare, but widely distributed; I have taken it at light in Honolulu, and at rest on a tree-trunk in Hawaii."

**GONOPTERIDÆ.**

3. *Gonitis hawaiensis*, n. s. (No. 15).

Primaries sericeous reddish coffee-colour, striolated with grey, and irrorated towards the base and on the disc with black atoms; the external border limited
internally by a zigzag greyish line; a very slender brown-edged pale discal line, irregularly zigzag from costa to second median branch, where it turns abruptly inwards, and then in a slightly concave transverse line to inner margin; two or three indistinct pale undulated lines (diverging from the inner margin towards the costa) across the basal half; reniform spot indicated by a few greyish scales at the anterior angle of the cell, and by a small pale-edged black spot at the posterior angle; fringe pale ochraceous or dull straw-yellow, traversed by a brown stripe; secondaries greyish brown, with bronze reflections; costal border whitish, pearly at the base; fringe stramineous at base, traversed by a greyish brown stripe, and tipped with white; thorax rather paler than the primaries; abdomen fuliginous-brown, with whitish hairs at base; last four segments reddish testaceous at the sides; primaries below greyish, shining, with cupreous reflections, the interno-basal area whitish, a basi-subcostal spot of ochreous, shading into a diffused discoidal rose-coloured patch; basal half of costal border crossed by short oblique blackish dashes; an arched abbreviated pale-edged blackish line from costal margin beyond the cell to the lower radial vein, where it becomes obsolete, the continuation as a greyish stripe being only visible in certain lights; the wing-surface beyond this line transversely striolated with grey, terminating near the outer margin, as above, in a zigzag diffused line, which indicates the inner limit of the external border; secondaries whitish, striated with blackish, the costal two-fifths and a diffused interno-median longitudinal streak washed with rosy ferruginous, and crossed by two vague dusky bands limited externally by the two usual dentate-sinuate discal lines, the inner one more defined than the outer, but both of them indistinct, excepting upon the reddish areas; fringe rather paler than above; body below dull rosy brown. Expanse of wings, 35 mm.

A small species for the genus, being, both in size and the outline of the primaries, similar to the species of Cosmophila, though in coloration, pattern, and structure it agrees with typical Gonitis.

"Apparently very rare. The specimen I send is unfortunately somewhat mutilated in respect of legs and antennæ, but otherwise is a good type. I captured it years ago, and have since failed to procure a second
specimen until a month ago, when I obtained a fine one, precisely identical with the one sent, at light. Both these specimens occurred near Honolulu.”—T. B.

Mr. Blackburn remarks that he has only seen Toxocampa noctivolans on Maui.

HYPOCALIDÆ.


“Another rare but widely-distributed insect; I have taken it at light in Honolulu twice; also have beaten it from a tree near Honolulu; also have started it off rocks on Maui. All the specimens, however, were much worn except the one I send and another; one worn specimen is somewhat larger than that I send, and has perfect simple antennæ. Doubtless a female.”—T. B.

The species of Hypocala seem to be remarkably constant considering the close resemblance of nearly all the species to one another; we have three examples now of H. velans, and, although nearly allied, they can be distinguished at a glance from an Australian species (apparently undescribed), and from the Indian H. violacea, to which they have greater affinity than to any others.

PYRALIDÆ.

5. Locastra monticolens, n. s. (No. 158).

♂. Primaries above black-brown, sprinkled with orange scales; with opaline white markings as follows: a slightly irregular belt near the base enclosing two squamose dusky spots; a bell-shaped spot across the cell, and an oblique abbreviated stripe, with zigzag outer edge just beyond the cell; these markings are all bounded externally by black lines; immediately beyond the oblique stripe is a small white γ-shaped costal marking; fringe black; secondaries greyish brown, only semi-opaque so as to show the under-surface markings indistinctly through the texture of the wing; external border blackish; thorax black, spotted with white, and with a white stripe along each side; abdomen brown, with white posterior margins to the segments; under surface of wings pale pearly dove-brown, with blackish
external borders; primaries with iridescent greyish internal area; a large spot in the cell, a still larger one at the end of the cell, and an inverted falciform discal line black; apical half of costal border white spotted with black; secondaries with a dot in the cell, a spot at the upper angle of the cell, a still larger spot at the projecting lower angle, and a subconfluent discal sinuous series of unequal spots black; body below white; legs banded with black. Expanse of wings 23 mm.

The smallest species yet described; it has the usual characteristic indentation of the costal margin of the primaries, but it is less strongly defined than in males of allied species, being little more than an irregularity of the surface near the edge of the wing. Of this species Mr. Blackburn says:

"I have taken at different times three specimens of this species, all flying about some precipitous cliffs, 1500 feet or so above the sea, not far from Honolulu. They were taken by day; they appear to be of the same sex."

STENIIDÆ.


Fuliginous-brown; wings with a blackish line along the outer margin; fringes white, traversed by a blackish line; primaries crossed near the base by a \( \geq \) -shaped line, just before the middle by a sigmoidal line, and half-way between the cell and apex by a slightly irregular arched line, all dark brown with white borders; a blackish dot at the end of the cell; secondaries with basal half white, gradually shading into the brown colour of the outer half; abdomen with white posterior margins to the segments; wings below with fringe as above; primaries greyish, with slight bronze reflections, the commencement of the third transverse line of the upper surface visible at costa; basal area and internal border white; secondaries white, with an abbreviated discal stripe from the costal margin, and the apex brown; body below white; anterior tibiae and tarsi brown above. Expanse of wings, 15 mm.

"Occurs on rocks in the bed of a mountain stream near Honolulu, over which it flies freely in the sunshine."—T. B.
Mr. Blackburn notes this as a female, and suggests that it may be that sex of No. 155; but, although only one rather worn example has come to hand, I cannot think that it has anything to do with that insect; apart from its very different pattern, it appears to me to be itself a male; at any rate it has as well developed an anal tuft as in many males among the Pyrales. 

I am not satisfied that I have done right in referring this species to Metasia, for, although the structure appears to be very nearly, if not quite, the same, the style of coloration is nearer to that of Stenia; if, however, it were placed in that section of the family it would have to form the type of a new genus on account of its short palpi, and, in order satisfactorily to describe its characters, it would be necessary to have a really good specimen.

7. Scotomera hydrophila, n. s. (No. 163).

Pale fuliginous-brown; primaries irrorated with black scales; crossed at basal third by an angular almost 3-shaped brown-edged pale stripe, and half-way between the cell and apex by a simply angulated stripe, minutely zigzag throughout, and edged with dark brown; between these two stripes is a pale zigzag oblique line bounding three small black spots, the uppermost of which is on the costal margin and the two others at the end of the cell; the costal border between the oblique line and the discal stripe is pale (whity-brown), and a spot of the same colour is on the costal border near apex; a submarginal series of externally whitish-edged black dots, followed by a blackish marginal line; fringe whitish, traversed by a grey stripe; secondaries paler than primaries, with black marginal line; fringe broader than on primaries, but similarly coloured; primaries below dark shining grey, with the interno-basal half white; costal border streaked with white; a submarginal series of blackish dots, followed by a whitish marginal line; fringe brown, darker at the base; secondaries shining sordid-white, crossed by a slender grey discal line; a black marginal line; fringe greyish, with whitish basal line bounded externally by a grey line; body below pearly white. Expanse of wings, 13 mm.

A specimen slightly larger than the type (15 mm.) is sent under the same number, but it is much rubbed, and
what pattern it has left seems to differ somewhat from that of the smaller example, so that I feel a little doubtful as to its identity.

"Occurs near a stream about twenty miles from Honolulu."—T. B.

I find that the genus Scotomera is more nearly allied to Stenia than to anything else.

BOTIDIDÆ.

Mestolobes, n. g.

Apparently more nearly allied to Phryganodes and Godara than anything else, but very distinct; the form of the primaries most like that of Godara, with the inner margin close to the base lobed and fringed with long scales, much as in Lophopteryx; the secondaries have a deep longitudinal fold, at the extremity of which the outer margin is distinctly indented; the discoidal cell of the primaries is long, that of secondaries very short; the typical species has a broad curled pencil of long coarse hairs between the wings at the base; the head is large, the palpi short and thick, the antennæ thick (especially in the type), the thorax robust, the abdomen moderately broad, only extending a short distance beyond the secondaries, with well-developed anal tuft; the type with two long forked basal pencils of hair at the sides; legs rather slender, compressed; middle tibiae coarsely scaled, and with two long terminal spurs below, and an acuminate terminal tuft above; posterior tibiae usually with an expanded fan-like tuft of hair-scales above near the extremity, with two long slender subterminal spurs, and a similar terminal spur below; the distal extremity above acuminate, as in the middle tibiae. Type, M. ænone.

8. Mestolobes ænone, n. s. (No. 155).

♂. Primaries above dark fuliginous-brown, crossed by two black-edged angulated white lines, the first zigzag at basal fourth, the second simply elbowed, but slightly irregular at external fourth; a submarginal cream-
coloured stripe, bounding a marginal series of externally white-pupilled black spots; fringe whitish, spotted with grey, and with a black basal line; a black lunule at the end of the cell; secondaries creamy white, with a large quadrate apical blackish spot separated from the outer margin by a slender white line; beyond this is a slender abbreviated black line at the base of the fringe, which is white, faintly tipped at apex with grey; basal hair-pencil white; lateral forked hair-pencils white, tipped with black; head white; antennæ brown above, white below; thorax blackish, with the borders of the tegulae white; abdomen with the basal segments white, the other segments blackish edged with white; anal tuft testaceous; primaries below with the basal third cream-coloured, the internal border white, the remainder of the wing brown, shot with bluish grey; two cream-coloured costal spots, the first only separated by a narrow oblique brown line from the basal area, the second larger and placed just beyond the middle of the costa; (a slightly curved indistinct whitish submarginal line)*; a sharply-defined whitish marginal line; fringe pale brown, with a black basal line; secondaries below cream-coloured; a large grey lunate spot from costal margin to subcostal fork; a grey apical spot; fringe as above; body below cream-coloured; anterior tibiae and tarsi banded above with black; middle tibiae banded above near the base; posterior tibiae with the fan-like tuft of hair black, tipped with white on its upper surface. Expanse of wings, 13 mm.

Two specimens.

"This species occurs on rocks in the bed of a mountain stream near Honolulu, over which it flies freely in the sunshine."—T. B.


Dark fuliginous-brown, sericeous; basal fourth of primaries darker and bounded externally by a blackish line, and followed almost immediately by a transverse bracket-shaped black-edged white or testaceous stripe; a second angulated externo-discal stripe beginning in a pale yellowish costal dash, and continued as a series of

* Perhaps due to abrasion.
white dots to the inner margin; between these two stripes is an abbreviated crinkled black-edged testaceous stripe, which crosses the end of the cell; a marginal series of black-edged white dots; fringe grey, black at base, and traversed by a slender white line; secondaries with the basal two-thirds paler; a large ovoid mealy yellow patch on the costal area of the male, and resting upon it a broad basal pencil of curly pale yellow and white hairs; fringe broad, white, traversed near the base by a black stripe, and broadly tipped with grey; abdomen of the male with ochraceous basal segments; anal tuft banded with white at the base; secondaries below grey, with bronze reflections, inner border broadly silvery white; an indication of the white discal stripe of the upper surface; fringe almost as above; secondaries sordid creamy whitish, with grey discal stripe and external border; fringe nearly as above; body below creamy whitish; palpi blackish; anterior tibiae and tarsi banded above with black. Expanse of wings, 13 mm.

"Two specimens, male and female, on rocks in the beds of mountain streams, high up in the mountains; flies freely in the sunshine."—T. B.

Until I had carefully examined the structure of this species I mistook it for a Simethis or Orosana; it, however, possesses the distinctive characters of Mestolobes, differing only from the typical species in the absence of the lateral abdominal hair-pencils and the tibial tufts of the posterior legs; each of the three species differs in its brush ornamentation, and on that account some authors would doubtless regard them as types of different genera.

10. Mestolobes semiochrea, n. s. (No. 156).

♂. Primaries with the basal third whitish, minutely irrorated with grey, and bounded externally by a nearly-straight white line, followed immediately by a black stripe, upon which are four small buff-coloured dots, two black dots placed obliquely from costal margin near the base; external two-thirds greyish brown, mottled with whitly-brown; a slender angulated and undulated external discal blackish line, bordered outwardly with whitish, and commencing upon the costa in a small buff spot; a
subapical costal blackish reniform spot, followed by a
duff-coloured apical spot; a submarginal series of black
dots, followed by a slender buff-coloured marginal line;
fringe buff-coloured, with a black basal stripe, and tipped
with black; secondaries pale ochreous, with two bi-
sinuated parallel blackish marginal lines; body above
pale brown; abdomen with the basal segments whitish,
the other segments black-edged; under surface pale
cREAMY buff; primaries with two black costal spots,
between which the margin is grey, the costal margin
towards the base blackish; apex and external area
broadly grey, two white costal spots; fringe greyish,
with blackish lines as above; secondaries with a small
costal grey lunule at apical third, and a few indistinct
dots along the margin; fringe greyish, excepting at the
base; body whitish; legs white; the tibie and anterior
tarsi with black ornamentation above almost as in
M. anone, but the bands narrower. Expanse of wings,
13 mm.

"The female is unknown to me. I have taken two or
three specimens singly in mountain localities near Hono-
lulu."—T. B.

This species curiously resembles the female of Mecyna
exigua in coloration.

11. Scopula constricta, n.s. (No. 108).

Allied to S. dipsasalis of New Zealand, but still more
closely to S. fulvalis of Europe; from dark examples of
the latter species it differs in its still darker, redder, and
more sericeous primaries, the macular character of the
black lines upon both surfaces, the narrow C-shaped
character of the reniform spot, the smaller and more
rounded orbicular spot, the sharply-defined and larger
black submarginal spots, the slightly paler and distinctly
more sericeous colouring of the secondaries, the reddish
brown coloration of the thorax and palpi, the con-
siderably greater length of these organs, the rust-red
colour of the tibie and tarsi, and of the costal border of
primaries on the under surface: lastly, in the very
distinct black maculation of the under surface of the
wings, the ordinary blackish discal line being replaced
by a series of black spots. Expanse of wings, 22—
24 mm.
"This curious insect was bred from a small batch of green larvæ feeding between spun together leaves of a plant growing high up the mountains near Honolulu. I found Deilephila calida feeding on the same plant. Pupa in a rather firm cocoon of leaves and silk. I note a peculiar character in this . . . species in the strong and abrupt contraction of one of the middle segments of the hind body: this is even more conspicuous when the insect is alive than when it is dead and dry. The female has simple slender antennæ." — T. B.

SCOPARIIDÆ.


This is certainly conspecific with the example previously received (No. 102); it differs from European examples in the less evidently angulated upper extremity of the externo-discal white line of the primaries, and in the blackish instead of white internally conical outer border of these wings; this blackish border, which is doubtless an exaggeration of the submarginal series of black spots, is interrupted close to the margin by a delicate undulated white line representing the straight white line of typical S. coarctata; the costal margin of the primaries is also a little shorter, and the outer margin straighter. Expanse of wings, 15 mm.

"Occurs on the mountains of Honolulu, but rarely." — T. B.

The specimen of this species previously received was a little rubbed, and therefore I unhesitatingly identified it as S. coarctata, to which it bears a close resemblance; the example now forwarded, however, shows distinct colour-characters on the external area of the primaries (which in the first specimen were wholly obliterated); it moreover agrees with the first specimen received in its slightly inferior size and more truncated primaries; I therefore now feel some hesitation in regarding it even as a variety of Zeller's species.
CRAMBIDÆ.

13. _Eromene bella_ (No. 103).


"Apparently very rare. I have taken two specimens at long intervals, both in Honolulu."—T. B.

The specimen forwarded agrees well with European examples.

TORTRICIDÆ.

14. _Teras illepida_, n. s. (No. 99).

Primaries above reddish clay-coloured, reticulated all over and dotted with dark grey; two distinct lines of the same colour across the external third, the inner one running obliquely inwards towards the costa, widely bisinuated, the outer one nearly straight, running from costal to outer margin (near the external angle); a minute inconspicuous black dot at the end of the cell; fringe greyish, with a slender whitish basal line; secondaries dark greyish brown, pale grey towards the base, and with silvery white costal border; the dark brown area obscurely spotted with blackish; fringe white, greyish at apex, and with a very slender dusky subbasal line; body reddish clay-coloured, the centre of the abdomen black; primaries below shining blackish brown; the costal border and apex white, reticulated with dark brown; fringe as above, but with a bronze reflection; internal border silvery whitish; secondaries shining silvery or greyish white, the apical two-thirds striated with black; fringe white, tipped with grey at apex; body below silvery white; palpi and upper surface of anterior and middle tibiae ferruginous; the tarsi of these legs above brown, minutely annulated with white. Expanse of wings, 17 mm.

"In neighbourhood of Honolulu; rare."—T. B.

This species seems a little aberrant, the primaries being narrower than usual towards the base; the palpi are deflexed in the specimen forwarded (which is unfortunately a little broken), but without seeing more examples I cannot decide whether this is their natural position.

Smoky brown; wings with cream-coloured fringe, traversed by a slender dusky line; primaries with a costal series of small oblique black dashes with greyish borders; external border blackish, bounded internally and divided into three parts by three slightly curved silvery grey lines; central area from dorsal margin to second median branch clouded with blackish, and crossed by a silvery greyish oblique band enclosing a slender blackish line; a cuneiform black spot within the end of the cell; remaining areas traversed by parallel slender dark brown lines directed backwards from the costa; secondaries with the basi-costal area whitish brown; basal area slightly pale; a slender whitish marginal line; body brownish testaceous; under surface shining fuliginous-brown; fringe greyish; costal border of primaries pale buff, spotted with blackish; posterior legs silvery whitish. Expanse of wings, 12 mm.

"In the neighbourhood of Honolulu."—T. B.

Mr. Blackburn thinks that this species may not be rare, but "only overlooked"; it is much like typical *P. blackburnii* in the pattern of the primaries above; but these wings are altogether browner in colour; the pattern and coloration of the under surface, particularly of the secondaries, is very dissimilar.

TINEIDÆ.


In colour and pattern almost exactly like *Ecophora picarella* of New Zealand, but allied to *Tinea picarella* and *T. nigralbella* of Europe; primaries above milky white, with black markings as follows: a cuneiform spot at base of costal border, and a small spot at base of submedian vein; a transverse oblong abbreviated band, to the infero-internal angle of which a short oblique dash is attached, at basal third; two small spots close to the middle of costal and dorsal margins, a small spot at external angle; the remaining spots are connected and form a slightly irregular K-shaped character, extending from between the two central spots to the extremity of the fringe; secondaries silvery grey; head and thorax above white; shoulders black; abdomen shining grey;
under surface shining silvery grey, with slight aeneous reflections. Expanse of wings, 16—20 mm.

Two examples; Honolulu.

ELACHISTIDÆ.

17. Laverna parda? Butler, var. montivolans (No. 162).

This form only differs in the grey instead of yellow colour of its head from the variety (No. 127) described by me last year (Ann. & Mag. Nat. Hist., ser. 5, vol. 7, p. 406); it agrees with that form in size, tint, and the distinctness of the black spots on the primaries, and when compared with typical L. parda makes me inclined to doubt my former conclusion that the difference in size and coloration was due to variation. I now think it quite possible that the two forms will prove to be specifically distinct.

"In mountain localities near Honolulu."—T. B.

18. Laverna aspersa, n. s. (No. 106).

Primaries above chalky white, three conspicuous dark brown costal spots upon the basal three-fifths of the border, and a longitudinal series of more or less hastate dark brown spots from base to outer margin through the interno-median area; the whole area between these two series (from base to apex) conspicuously spotted with small elongated testaceous spots with dark brown centres; secondaries shining silvery; body above white; antennæ brownish, excepting at the base; wings below shining bronze-brown; primaries with white costal fringe; body below silvery white, metallic. Expanse of wings, 12 mm.

"In mountain localities near Honolulu."—T. B.

PTEROPHORIDÆ.

19. Platyptilus littoralis, n. s. (No. 169).

Nearest to P. falcatalis of New Zealand, but differing in the colour of its legs, in the shape of the black patch at the end of the cell of primaries, and in the much less conspicuous and less purely white submarginal stripe; it is also allied to P. zetterstedti. Primaries above pale golden brown, with slightly darker oblique mottlings; the base of median vein and a longitudinal central streak
spotted with dark brown; costal border to apical fifth blackish, spotted with elongated whitish spots; a small white dash at the end of the cell, and above and beyond it a large diamond-shaped black-brown patch (answering to the ordinary triangular spot of the genus); the angular outer edge of this patch forms an internal boundary to a broad ochraceous belt, divided by the usual cleft, and enclosing close to its outer edge (answering to the submarginal stripe of *P. falcatalis*) a series of elongated black spots; two more slender black spots or dashes are upon the costal margin; external border smoky brown; secondaries shining greyish brown; body above rather pale brown; palpi blackish; abdomen with a white-edged conical black spot on each side at the base; the remaining segments brown at the sides, mottled with black; anterior femora and tibiae black above, the latter white at the base; tarsi wholly white; middle femora dark brown; tibiae black, banded with white; tarsi white; posterior femora dark brown; tibiae and two basal joints of tarsi black; terminal joints white; wings below greyish brown, shining; primaries with a diffused ferruginous spot, followed by an oblique ochreous costal spot, beyond the cell; a slender interrupted submarginal white line; body below pale buff; legs below creamy white, banded with black at the knees and tibial joints. Expanse of wings, 22 mm.

One example.

"Occurring on shores of a small mountain lake near Honolulu."—T. B.

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