

pinkish-brown colour, and exhibits, more or less distinctly, the external banding. The columella is white or pinkish white, and bears a single distinct but not very strong fold exactly in the middle; and the "lower small one" mentioned by Sowerby does not exist, for neither the specimens themselves nor the figure exhibit a trace of it. The species is rather thick and strong for its size, and consists of five whorls.

17. *CHILINA AMCENA*, Smith.

Chilina amcena, Smith, Proc. Zool. Soc. 1881, p. 37, pl. iv. f. 18, 18a.

Hab. From a lake near Tom Bay, west of South Patagonia (*Dr. Copping*, *H.M.S. 'Alert'*).

This species is remarkable for its fragility, the slenderness of its form, and the vividness of the markings.

18. *CHILINA PORTILLENIS*, Hidalgo.

Chilina portillensis, Hidalgo, Journ. de Conch. 1880, vol. xxviii. p. 322, pl. xi. figs. 1-1 a.

Hab. Portillo, Argentine Republic, at an altitude of "4000 mètres."

Subgenus *PSEUDOCILINA*,

Dall, Ann. Lyc. Nat. Hist. N. York, 1870, vol. ix. p. 357.

"Shell thin, covered with a rough fibrous epidermis; spire elevated, acute" (*Dall*).

19. *PSEUDOCILINA LIMNÆFORMIS*, Dall.

Pseudochilina limnæformis, Dall, Ann. Lyc. Nat. Hist. N. York, 1870, vol. ix. p. 357.

Hab. Chile.

"The curious epidermis and broad plicate columella alone distinguish this singular shell from a *Limnæa*" (*Dall*).

8. On Butterflies from Japan, by ARTHUR G. BUTLER, F.L.S., F.Z.S., &c.; with which are incorporated Notes and Descriptions of new Species by MONTAGUE FENTON.

[Received September 8, 1881.]

The present paper gives an account of the Butterflies observed in Hokkaido by Mr. Fenton, together with one or two species subsequently obtained from other sources. Some of the specimens have been in my hands since 1878; but without seeing all those included in Mr. Fenton's notes it was impossible for me to publish any thing concerning them. Now that the whole of the species have been submitted to me, I gladly make them known to science.

Writing from Tokio University on the 9th of November, 1878, Mr. Fenton says:—"I have received all my collections from Hok-

kaido (Yesso) in safety. In looking them over I was able to see some varieties and some species new to me, some of which I have described, and the others I have transmitted to you.

"Mr. Janson sent me a copy of the 'Cistula Entomologica' for June 30th, 1878, containing your remarks on, and descriptions of some Japanese Rhopalocera sent home by me.

"Page 281.

"*Argynnis rabdia* (No. 79).

"I have a specimen of this measuring 2" 8".

"*Melitæa niphona* (No. 84).

"The size of this species varies considerably. The smallest I have measures 1" 3", while the largest is 1" 11" in expanse.

"*Melitæa scotosia* (No. 83.)

"Specimens caught in May, at Koganenohára, 18 miles east of Tokio, are of a bright velvety tawny; while those taken on the plain at the foot of Asama, in July, are very dingy and are somewhat melanized.

"*Neptis excellens* (No. 58).

"I have since found this species just outside Tokio in May, at Somei; took two also in Shiribets, Hokkaido, last August.

"*Pararge achinoides* (No. 39).

"In the male you described the 'additional indistinct ocellus near anal angle;' it becomes *distinct* in the female.

"*Lycæna argia* (No. 103 a).

"I have examined all my specimens of this, and am obliged to conclude it distinct. A less difference exists between *L. japonica* and *L. argia* than between the latter and *L. alope*.

"*Chrysophanus phlæas* (99) and *Gonepteryx rhamni* (12).

"I find that these came from an old collection of English insects in Japan¹.

"*Thecla orientalis* (No. 98 b).

"This varies slightly from the specimens taken southwards: 'Bandai' is the name of a mountain on the north side of Inawashiro lake in Iwashira. The Japanese call all Butterflies and Moths 'Chō,' the only exceptions being some local names for *Papilio demetrius* and *P. memnon*.

"*Pamphila jansonis* (No. 125).

"♀. 'The additional white spot between the first and second of the oblique discal series' present also *above*."

* * *

"Owing to the wildness of Hokkaido, I was obliged to keep to

¹ In my paper I doubted the authenticity of the habitat "Japan" for these two species, stating that they differed in no respect from the British species.—A. G. B.

the beaten tract; and thus I caught only those that crossed my path; besides, there were such countless myriads of female blood-sucking *Diptera* (including two species of *Chrysops*, three of *Tabanus*, one seemingly *T. lineola*, and one of *Simulium*) that I could do little else than defend my person.

"From Tomakomai to Shimamatou, a distance of thirty miles, *Lyccena hellotia* had collected in patches of hundreds, drawing in the moisture from the road. They looked like fleets of miniature yachts. By one sweep of my net, I secured a hundred and six.

"I saw in Hokkaido and in Rikuoku, in the north of the main island, *Euripus japonica*: it is much smaller than those taken further south, measuring only 2" 7'."

* * *

"Mr. Pryer has kindly allowed me to put my insects with some things that he is sending home by the English mail of the 12th inst. Among his bottles of preserved animals will be found one containing a small snake (No. 1) that had taken up its quarters in an old bamboo in my garden in Tokio, another (No. 2) in the road near Junsainuma near Hakodaté, a red tick (No. 3) found all over Hokkaido: I sometimes had as many as twenty on my legs; they are rather indifferent feeders, attacking horses, deer, and even the Ainos."

Enclosed is a list of "Butterflies seen in Hokkaido in July and August, over a distance of 345 miles between the parallels 41° 25' and 43° 4' N."

Mr. Fenton's list is arranged according to the now almost obsolete classification of Doubleday and Hewitson; and therefore I have thought it better for convenience of reference to remodel it, at the same time filling in such specific names as were left blank.

NYMPHALIDÆ.

SATYRINÆ.

- | | |
|--|---|
| 1. <i>Satyrus bipunctatus</i> , <i>Motsch.</i> | 6. <i>Pararge achinoides</i> , <i>Butl.</i> |
| 2. — <i>schrenkii</i> , <i>Brem.</i> | 7. <i>Lethe diana</i> , <i>Butl.</i> |
| 3. <i>Neope gaschkevitchii</i> , <i>Mén.</i> | 8. — <i>sicelis</i> , <i>Hewits.</i> |
| 4. — <i>callipteris</i> , <i>Butl.</i> | 9. <i>Erebia scoparia</i> , <i>Butl.</i> |
| 5. — <i>fentoni</i> , <i>Butl.</i> | 10. <i>Ypthima argus</i> , <i>Butl.</i> |

NYMPHALINÆ.

- | | |
|--|--|
| 11. <i>Apatura substituta</i> , <i>Butl.</i> | 24. <i>Vanessa xanthomelas</i> , <i>Denis.</i> |
| 12. <i>Hestina japonica</i> , <i>Feld.</i> | 25. — <i>connexa</i> , <i>Butler.</i> |
| 13. <i>Limenitis sibilla</i> , <i>Ochs.</i> | 26. — <i>io</i> , <i>Linn.</i> |
| 14. <i>Neptis excellens</i> , <i>Butl.</i> | 27. — <i>antiopa</i> , <i>Linn.</i> |
| 15. — <i>ludmilla</i> , <i>H.-Sch.</i> | 28. — <i>glauconia</i> , <i>Motsch.</i> |
| 16. — <i>intermedia</i> , <i>Pryer.</i> | 29. <i>Argynnis sagana</i> , <i>Doubl.</i> |
| 17. <i>Araschnia fallax</i> , <i>Jans.</i> | 30. — <i>paphioides</i> , <i>Butl.</i> |
| 18. — <i>obscura</i> , <i>Fenton.</i> | 31. — <i>lysippe</i> , <i>Jans.</i> |
| 19. <i>Pyrameis cardui</i> , <i>Linn.</i> | 32. — <i>japonica</i> , <i>Mén.</i> |
| 20. — <i>indica</i> , <i>Herbst.</i> | 33. — <i>rabdia</i> , <i>Butl.</i> |
| 21. <i>Vanessa angelica</i> , <i>Cram.</i> | 34. — <i>locuples</i> , <i>Butl.</i> |
| 22. — <i>lunigera</i> , <i>Butl.</i> | 35. — <i>fortuna</i> , <i>Jans.</i> |
| 23. — <i>v-album</i> , <i>Denis.</i> | |

ERYCINIDÆ.

LIBYTHEINÆ.

- 36.
- Libythea lepita*
- , Moore.

LYCÆNIDÆ.

- | | |
|---|---|
| 37. <i>Lampides hellotia</i> , Mén. | 49. <i>Thecla ibara</i> , <i>Butl.</i> |
| 38. <i>Lycæna pryri</i> , Murr. | 50. — orsedice, <i>Butl.</i> |
| 39. — ladonides, <i>De l'Orza</i> . | 51. — butleri, <i>Fenton</i> . |
| 40. — lycormas, <i>Butl.</i> | 52. — enthea, <i>Jans.</i> |
| 41. — euphemus, <i>Herbst.</i> | 53. — regina, <i>Butl.</i> |
| 42. — pseudægon, <i>Butl.</i> | 54. — japonica, <i>Murr.</i> |
| 43. — alope, <i>Fenton</i> . | 55. — orientalis, <i>Murr.</i> |
| 44. — iburiensis, <i>Butl.</i> | 56. — arata, <i>Murr.</i> |
| 45. <i>Scolitantides sedi</i> , <i>Fabr.</i> | 57. — signata, <i>Butl.</i> |
| 46. <i>Chrysophanus timæus</i> , <i>Cram.</i> | 58. — mera, <i>Jans.</i> |
| 47. <i>Thecla lutea</i> , <i>Hew.</i> | 59. <i>Strymon fentoni</i> , <i>Butl.</i> |
| 48. — jonasii, <i>Jans.</i> | |

PAPILIONIDÆ.

PIERINÆ.

- | | |
|---|--|
| 60. <i>Colias simoda</i> , <i>De l'Orza</i> . | 63. <i>Synchloë megamera</i> , <i>Butl.</i> |
| 61. <i>Aporia cratægi</i> , <i>Linn.</i> | 64. — crucivora, <i>Boisd.</i> |
| 62. <i>Synchloë melete</i> , <i>Mén.</i> | 65. <i>Leptosia morsei</i> , <i>Fenton</i> . |

PAPILIONINÆ.

- | | |
|---|---|
| 66. <i>Papilio hippocrates</i> , <i>Feld.</i> | 69. <i>Papilio maackii</i> , <i>Brem.</i> |
| 67. — xuthus, <i>Linn.</i> | 70. — tutanus, <i>Fenton</i> . |
| 68. — alcinous, <i>Klug.</i> | |

HESPERIIDÆ.

- | | |
|--|---|
| 71. <i>Pamphila pellucida</i> , <i>Murr.</i> | 73. <i>Pamphila venata</i> , <i>Brem.</i> |
| 72. — varia, <i>Murr.</i> | 74. — sylvatica, <i>Brem.</i> |

Of species not described as new in the present paper Mr. Fenton forwards the following notes:—

Limenitis sibilla was taken at "Hokkaido in July and August." *Neptis ludmilla* at "Iburi, Hokkaido, in the third week in July;" *Vanessa xanthomelas* in July; *Argynnis japonica*, the same; *A. rabdia* in "Southern Hokkaido in July;" *Lycena ladonides* at "Hokkaido in July and August;" *L. lycormas*, Hakodaté, third week in July; *Scolitantides sedi* at "Kuramatsunai, Shiribetsu, Hokkaido, in August."

*Descriptions of new Species*¹.

EREBIA SCOPARIA, Butler.

Allied to *E. nipponica*, but broader and altogether different on the under surface. Wings above rich sericeous fuliginous brown; primaries darker than the secondaries; the disk crossed by a broad, irregular, bright ochreous band not reaching the costal or inner margins, enclosing three black ocelli with white pupils, the two upper ones confluent and placed upon the radial interspaces, the third

¹ The species described by myself have my name appended to them; and those by Mr. Fenton have his. Several of the specific names used by me were suggested by Mr. Fenton.

placed upon the first median interspace: secondaries with three white points on the median and radial interspaces, only the first (on the first median interspace) distinct and snow-white: thorax fuliginous brown, abdomen blackish. Primaries below nearly as above, but the internal area greyish and the external border bright chocolate-brown; secondaries much as in *E. medea*, bright chocolate-brown, with faint indication of a slightly more olivaceous broad angular belt just before the middle; the disk slightly greyish, showing the white dots of the upper surface distinctly, the first of these is black-edged; fringe of all the wings dull black mottled with testaceous; pectus fuliginous brown, legs and venter pale brown. Expanse of wings 2 inches 1 line.

Kuramatsunai, Shiribetsu, Hokkaido, second week in August.

Coll. M. Fenton.

This is an interesting and well-defined new species.

ARASCHNIA OBSCURA, Fenton.

Allied to *A. fallax*, O. Janson (Cist. Ent. 1878, p. 271). *Male* above soot-black: primaries with four short narrow transverse lines in the cell, and one below the median vein near the base, pale ochreous; the transverse interrupted band on the disk extending quite to the costal edge at one end, but only to the submedian vein at the other, *very* pale ochreous; four spots in a curved row near the apex, the first and second, and a small linear spot about the middle and close to the margin, pale ochreous, the third (the smallest) and the fourth (the largest) and a small spot between the second and third median veinlets pure white; no irregular submarginal lunular reddish-sienna spots: secondaries produced at the middle of outer edge; no undulating reddish-sienna lines; fringe with white sinuations interrupted by black at the end of the nervures. Below pale ochreous; the irregular marks at the base reddish chocolate; the apical third occupied by a broad band of the same colour bordered inwardly with black, interrupted by the nervures: primaries with an additional small white spot in the band, between the first and second median veinlets; the markings below the cell black, dusted in some specimens with reddish chocolate. Expanse of wings 1 inch 8 lines.

Forest-lands in Hokkaido, August.

Coll. M. Fenton.

I have not examined the type of this species of Mr. Fenton's; but, from a photograph which he has shown me, I should judge it to be perfectly distinct.

VANESSA LUNIGERA, Butler.

Allied to *V. fentoni*, but altogether duller in colour; the black spots above considerably larger; the lunate subconfluent spots on the external area of secondaries replaced by a series of small lunules: under surface with all the bands considerably darker and broader, the silvery white J-shaped marking on the secondaries replaced by a J-shaped character. Expanse of wing 2 inches 5 lines.

N. Ihuri, Hokkaido, July.

Coll. M. Fenton.

This species has the costal margin of the primaries more produced

and the apical area distinctly narrower than in *V. fentoni*: it differs from the latter in pattern and coloration much as *V. faunus* of North America does from *V. satyrus*.

VANESSA CONNEXA, Butler.

Allied to *V. urticae* of Europe, but the second black costal patch on the primaries united to the interno-median patch and the latter to the inner margin, so as to form a broad central angulated black band right across the wing; no trace of blue submarginal lunules on the primaries; the red discal area of the secondaries much narrower and the brown area darker. Wings below considerably darker, the secondaries even darker than in *V. californica*, the disk being densely striated with purplish brown; the black-edged green submarginal stripe rather lunate than sagittate, and almost wholly black on the primaries; the brown-edged lilac marginal stripe better defined and more lunulate in character. Expanse of wings 2 inches 2 lines.

Toshima, Hokkaido; July.

Coll. B.M. and Fenton.

This is quite distinct from the imperfectly banded form named by Dr. Staudinger *V. polaris*. Mr. Fenton writes respecting it:—"I have examined more than 30, and I find that they do not vary at all from the form I send you. I think it is distinct from *V. urticae*."

LYCÆNA PSEUDÆGON, Butler.

Nearest to *L. ægon* of Europe, the same colours. The male smaller and with a very narrow black outer border to the wings; fringe narrower, submarginal black spots of secondaries rather smaller; female very faintly shot with steel-blue at the base of primaries, submarginal orange lunules obsolete; secondaries darker, purplish towards the base, bluish at the base; the whole of the black submarginal spots bounded internally by orange lunules and externally by white ones. Under surface greyer than in *L. ægon*, both sexes washed with pale greenish blue at the base; black spots smaller, but arranged exactly in the same way; submarginal orange spots of the primaries of the male extremely pale; those of the secondaries destitute of metallic spots in both sexes. Expanse of wings, ♂ 1 inch 2 lines, ♀ 1 inch 3 lines.

Iburi, Hokkaido, July.

Coll. M. Fenton.

LYCÆNA ALOPE, Fenton.

Allied to *L. japonica* and *L. argia*. *Male* deeper violet than *L. argia*, Ménétr.: above, the dark marginal border to primaries broader; below, the black spot absent from cell of primaries; the third, fourth, fifth and sixth of the discal row of spots in the secondaries form an arc of a larger circle than the corresponding ones in *L. argia*; the second spot lies much nearer the junction of the first and second subcostal veinlets. Average expanse of wings $1\frac{3}{4}$ line less.

Appears to be confined to the river-bed, which the Oshiukaido crosses at Akutsu, Shimódzuke; middle of July. Coll. M. Fenton.

I have not seen the type of this species described by Mr. Fenton;

but we have what I take to be the species in the Museum: our example has a very unusually prominent submarginal series of broad dusky lunules on the under surface.

LYCÆNA IBURIENSIS, Butler.

Allied to *L. argus*, but more nearly of the size and colour above of *L. lycaumas*. Pale silvery blue with brown veins and broad smoky-brown external borders; fringe very narrow and snow-white; secondaries with broad brown costal area; body above rather darker than the wings: under surface chalky bluish white; the base, especially in the secondaries, suffused with pale bluish green; black spots arranged as in *L. argus*, but large and intensely black; the orange lunules wanting in the marginal ocelloid spots of the primaries, paler in those of the secondaries; no metallic pupils to the black spots of the secondaries; pectus bluish. Expanse of wings 1 inch 5 lines.

Iburi, Hokkaido; July.

Coll. M. Fenton.

A very distinct and pretty species.

THECLA IBARA, Butler.

♀. Upper surface similar to *T. mera*, sericeous fuliginous brown: primaries with broad diffused blackish external area and costal border; fringes snow-white, spotted with black at the extremities of the veins: head olivaceous varied with snow-white. Under surface of wings golden stramineous; a discal series of black-edged orange lunate spots followed by a series of oval pearl-white spots from the upper radial of primaries to the second median branch of secondaries, the third and fourth of the primaries bounded externally by a few black scales, the fifth (or last) on the primaries bounded by a large black spot, the orange lunule also almost wholly covered by its black border; the fifth and last of secondaries bounded by a small black spot; a broad orange patch, in continuation of the discal spots, at anal angle, its inner edge bounded by two slender black lituræ; a large submarginal black spot on the inner half of the orange patch, which is bounded by the first median interspace and two black marginal spots in the angles of the outer half, upon interno-median interspace; these two spots are connected by a silvery-blue line; all the wings with a black marginal line; fringe snow-white, spotted with black. Body below snow-white; legs banded with black. Expanse of wings 1 inch 9 lines.

Ibara pass, Dewa, second week of July.

Coll. M. Fenton.

This on the under surface is one of the most beautiful of the true *Theclæ*.

THECLA ORSEDICE, Butler.

♀. Upper surface much like the females of *Iolaus pseudolonginus* and *Pithecops intensa*. Primaries pale bluish grey, or greyish white, with very broad black-brown apical area and external border; median branches brackish; costal border pale bronzy brown, faintly shot with violet; fringe tipped with white: secondaries fuliginous brown, with the abdominal area and discoidal cell washed with pale ash-grey;

a slender snow-white submarginal line; fringe tipped with white; head somewhat olivaceous; body greyish; abdomen sordid brownish. Wings below pale shining dove-brown, with white submarginal line, white-tipped fringe; a disco-submarginal series of white-edged black spots and an irregular white-edged black discal line: primaries with the discal line straight from the third subcostal to the first median branch, where it is interrupted; the disco-submarginal spots subconical, almost orbicular, increasing in size from the costa to the external angle; internal border white: secondaries with the discal line near to the middle of the wing, oblique and terminating in a W-shaped character; the disco-submarginal spots lunate, the sixth interrupted by a large orange spot with black centre, and the seventh divided by an orange-and-black trifold streak which extends to the anal angle: body below white. Expanse of wings 1 inch 6 lines.

Iwashiro, second week in July.

Coll. M. Fenton.

Allied to *T. eretria* of Hewitson.

THECLA BUTLERI, Fenton.

Allied to *T. attilia*; colour the same; margin of primaries straighter. Above, the submarginal row of white spots in the secondaries larger and more distinct, the third, fourth, and the one near the anal angle centred with black: below, the ground-colour slightly duskier, becoming still more so towards the margin; in the primaries is a transverse bar in the middle of the cell, extending from the subcostal to the submedian vein, and almost divided by the median into two spots; the discal bar ceases abruptly at the third median veinlet; an extra small spot, just on the division between the middle and apical thirds, between the third median veinlet and the submedian vein: secondaries with a transverse row of three black spots at the base in a descending series from the costal vein, a short bar at the end of the cell as in primaries; a transverse irregular bar in the middle third, extending from the costal and narrowing towards the independent vein; a row of three oblong spots, the first two with the longer axis placed transversely, the third near the inner edge, almost at right angles to the second; a submarginal row of whitish spots centred with black, more distinct and enclosed in the aforesaid dusky colour; the orange-red at the base of the tail and at the anal angle more suffused. Expanse of wings 1 inch $3\frac{1}{2}$ lines.

Middle of August.

Coll. M. Fenton.

On the top of the peak, 1060 feet high, overlooking Hakodaté, I took one specimen that had become involved in a circular wind eddy round the mountain and carried upwards in company with numbers of *Papilio hippocrates*, *Papilio maackii*, *Pieris megamera*, *Neope fentoni*, *Satyrus bipunctatus*, *Argynnis pallescens*¹, *Thecla japonica*, *Lycæna ladonides*, and *Lycæna hellotia*—all more or less shattered; some ascended still higher, until they were lost to view.

THECLA REGINA, Butler.

♀. Allied to *T. quercus* of Europe and *T. fasciata* of Japan. Pri-

¹ Possibly *A. locuples*.—A. G. B.

maries above with the basi-internal half, excepting the costal border and veins, bright cobalt-blue changing to ultramarine, the remainder of these wings dark shining cupreous-brown, the fringe tipped with white: secondaries cupreous-brown, paler than the primaries excepting towards the outer margin, fringe tipped with white: body greyish brown. Under surface with almost the pattern of *T. fasciata*, but greyer in tint and with all the markings sharply defined, the white stripe purer in colour, broader and more curved; the primaries with two slender submarginal whitish lines in continuation of the lunulated lines of the secondaries, and enclosing two distinct and a third indistinct blackish spot on the inferior half of the external area; orange spots of secondaries deeper in colour. Expanse of wings 1 inch 5 lines.

Toshima and Iburi; July.

Coll. M. Fenton.

T. regina is of the usual size of *T. quercus*.

THECLA SIGNATA, Butler.

Allied to *T. arata* and *T. tyrianthina*. Primaries above with the discoidal cell, the interno-median interspace almost to outer margin, and the basal half of the median interspaces bright pure lilac, the remainder of the wing and the veins dark brown shot with lilac; secondaries rather pale fuliginous brown with bronzy reflections, the discoidal cell sprinkled with lilac scales. Wings below pale golden brown: primaries with two slightly darker spots in the cell, margined and partly connected by silvery-white lines; a slightly oblique band from costa to first median branch, edged on both sides with silvery-white lines; a submarginal series of indistinct white lunules, the last two of which bound two dusky spots; internal area shining whitish; fringe dusky: secondaries with two abbreviated silvery-white lines across the base of the subcostal area, the inner one curved; a nearly M-shaped character of the same colour crossed by the median vein; two widely angulated, slender, interrupted white lines from the abdominal margin to the median vein; an oblique white line from the costal margin to the first median branch, and a chain-like double white line from the apex to the second median branch; a large black spotted orange spot on the anal area (the anal third of the wing is ragged on both sides; but from what remains of the anal patch, it appears to be of the same character as that of *T. arata*). Body white, the venter creamy, the tarsi annulated with black. Expanse of wings 1 inch 3 lines.

Kuramatsunai, August.

Coll. M. Fenton.

Thecla signata may be placed between *T. arata* and *T. tyrianthina*, although in some respects very unlike either.

STRYMON FENTONI, Butler.

Nearly allied to *S. w-album* of Europe, but quite as large as *S. spini*; under surface like the latter species in tint, but with almost the pattern of *S. w-album*; the discal line of the primaries, however, is more arched and continuous, that of the secondaries is more transverse, and therefore does not run inwards in the direction of the base;

the submarginal spots are more dome-shaped, of a bright orange instead of red colour; and there is a distinct submarginal white line. Expanse of wings 1 inch 5 lines.

Shiribetsu, Hokkaido, August.

Coll. M. Fenton.

LEPTOSIA MORSEI, Fenton.

Allied to *L. amurensis*. Wings rounder, not produced at the apex; the black apical patch lighter: average expanse of *L. amurensis*, ♂ 1 inch 11½ lines, ♀ 2 inches ⅓ line; of *L. morsei*, ♂ 1 inch 11 lines, ♀ 2 inches.

Iburi, Hokkaido, end of July.

Colls. Fenton and B.M.

The example sent to us by Mr. Fenton certainly bears out the distinctions laid down in his above description; and I have little doubt that this is a genuine species.

PAPILIO DEHAANI, var. (?) TUTANUS, Fenton.

♂. Primaries sharper above than typical *P. dehaani*; the scattered atoms are slightly brighter and greener¹ and are aggregated in a transverse discal bar: below, the broad whitish discal dash of the primaries of *P. dehaani* much narrower and less distinct, and obsolete in some specimens; the scattered ochreous scales of the secondaries are somewhat paler and are aggregated (densely in some examples) in a curved transverse discal bar; the violet scales over-arching the red submarginal lunules more numerous. There is the same difference between the sexes; both sexes vary in a like degree *inter se*. Generally larger. Expanse of wings, ♂ 4 inches 8 lines to 5 inches 6 lines; ♀ 5 inches 6 lines to 5 inches 9 lines.

Toshima and Iburi, Hokkaido.

Colls. Fenton and B.M.

The summer brood makes its first appearance about the 26th of July, and is on the wing till the middle of September.

P. tutanus and *P. dehaani*², near Hakodaté, in the south of Hokkaido, are found feeding together on the same excrement, though I never saw the males of the latter in conflict with those of *P. tutanus*, or chasing the females, or *vice versa*. Further north I did not see a single specimen of *P. dehaani*, and *P. tutanus* became more abundant.

The following *Lycænid* was unwittingly omitted from my descriptions of new species from Nikko.

AMBLYPODIA TURBATA, sp. n.

♂. Form and size of *A. diardi*; but the secondaries comparatively rather larger, the wings above dark blue instead of violet, and with a rather broad black external border: under surface more like *A. apidanus* in pattern and coloration, but the costal thirds of all the wings washed with lilac, across which the olive-brown bands run;

¹ The colour was noted before the specimens were transferred to the cabinet. The fumes of carbolic acid, present in the drawers, turn them very green.

² The species sent home by Mr. Fenton under this name is *P. maackii*; and therefore, excepting in this description (which characterizes what I believe to be a distinct species much nearer to the true *P. dehaani*), I have corrected Mr. Fenton's name.—A. G. B.

the abdominal half of secondaries crossed by three irregularly arched nebulous blackish bands, increasing in intensity and in extent as they approach the outer margin; the basal area also ashy instead of dark brown, and the markings on the basal half of the primaries small and more feebly indicated than those of the external half. Expanse of wings 1 inch 11 lines.

♀. Primaries above bright ultramarine, with a very broad black apical area and external border; secondaries and body blackish brown; wings below more like *A. centaurus* than the male, the arched abdominal bands obsolete, replaced by a continuation of the ordinary pale-edged macular bands. Expanse of wings 1 inch 11 lines.

Six examples, Nikko (*C. Maries*).

Coll. B.M.

PROTEIDES CHRYSÆGLIA, sp. n.

Olivaceous brown, the wings with bright golden or yellowish cupreous reflections, and with the basal three fourths densely sprinkled with fulvous hair-like scales; fringe creamy whitish: primaries with an indication of four or five increasing oval discal buff-coloured spots, which, however, are concealed in certain lights by the shot colouring of the wing: head bright fulvous; thorax densely clothed with fulvous hair; palpi jet-black with a broad yellow band. Under surface olivaceous, with slight golden reflections: primaries with the pale buff spots distinct, forming a pyramidal patch, the base of which is expanded and occupies the whole internal border, divided by the median branches; a small bifid yellow spot within the end of the cell, and a few radiating scales of this colour beyond the cell; secondaries with yellowish abdominal area: tibiæ and tarsi bright orange. Expanse of wings 1 inch 10 lines.

Four examples, Yesso (*C. Maries*).

Coll. B. M.

9. On the Butterflies of Amurland, North China, and Japan.

By H. J. ELWES, F.L.S., F.Z.S.

[Received November 15, 1881].

Our knowledge of the Lepidoptera of N.E. Asia has received large accessions during the last few years; but no attempt has yet been made to enumerate the Butterflies which are found there. It is still far too soon to do this with any thing like completeness, as we know nothing of the insects of China except in a few scattered localities; and when we consider the enormous extent of the country, and the number of years required by so indefatigable a naturalist as the late Mr. Swinhoe to gain a fair knowledge of the birds, it is evident that a good list of the Chinese Butterflies must be for many years impossible. Having recently been requested by Mr. Godman to work up a collection made in China by Mr. Pryer, I soon found that the relation between the Butterflies of North China, Amurland, and Japan was so close that they could only be studied as a whole.



Fenton., Montague. 1881. "On Butterflies from Japan, by Arthur G. Butler, F.L.S., F.Z.S., &c.; with which are incorporated Notes and Descriptions of new Species." *Proceedings of the Zoological Society of London* 1881, 846–856.

<https://doi.org/10.1111/j.1096-3642.1881.tb01346.x>.

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DOI: <https://doi.org/10.1111/j.1096-3642.1881.tb01346.x>

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