

described by me. So far as can be ascertained, without examining the dentition, the Snake is a *Lamprophis*, a member of the Lycodontine group of the Colubroids. I am unable to refer it to any described species, and have much pleasure in naming it in honour of its discoverer.

LAMPROPHIS FISKI, sp. n. (Plate XXXIV.)

Twenty-three series of scales; vertebrals not enlarged; eight upper labials, fourth and fifth entering the eye; two postoculars; loreal a little longer than deep; præfrontals in contact with supraoculars; frontal broad; tail short, ending very obtusely. Lemon-yellow on the five median rows of scales, with large blackish-brown spots forming a single series anteriorly, a double alternating series posteriorly; head lemon-yellow above, with symmetrical blackish-brown markings, viz. an oblique band on each side of the occiput, a horse-shoe-shaped band passing through the eyes and across the snout, and a bar across the frontal; lateral scales of body and tail dark brown in the centre and yellowish white on the borders; upper lip and lower surfaces white. Iris dark bronze.

The specimen, which measures 315 millim., was sent to Mr. Fisk from Touw's River by Mr. G. Atherstone.

2. On the Lepidoptera of Japan and Corea.—Part I. Rhopalocera. By J. H. LEECH, B.A., F.R.G.S., F.L.S., F.Z.S., F.E.S., &c.

[Received April 16, 1887.]

(Plates XXXV. & XXXVI.)

The Lepidopterous fauna of Japan contains so many species common to Corea, that I have deemed it advisable in this paper to unite them.

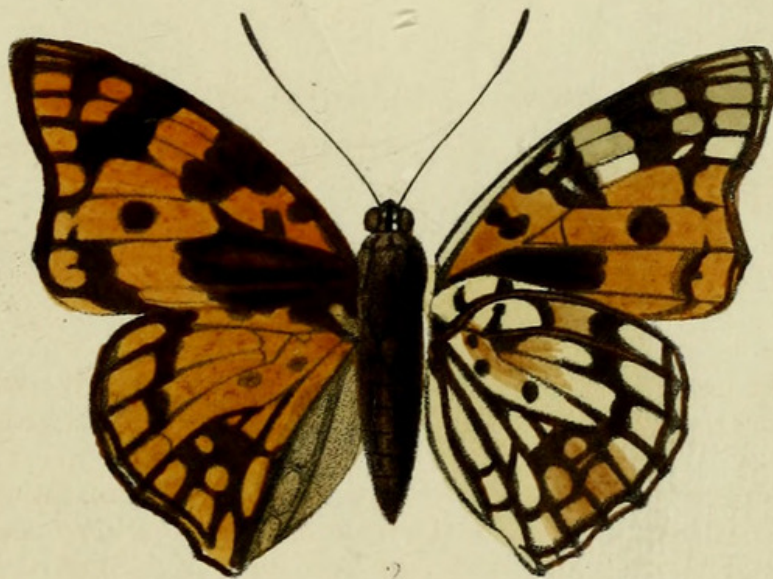
The accompanying tables show how nearly allied the faunas of the three districts, viz. Japan (the main and two southern islands), Yesso, and Corea, are. My work has been greatly facilitated through the kindness of Mr. Elwes, Mr. Butler, and Mr. Kirby. I have also to thank Mr. Fenton for the permission to view his collection, and Mr. H. Pryer, of Yokohama, for much kindness and many valuable hints during my stay in Japan.

The following is a summary of my results:—

Japan (main and two southern islands)	123 species.
Yesso or Hokaido	89 „
Corea	91 „
Species (†) which occur in Japan and Amurland, and which may be expected to occur in Corea	22 „
Common to Japan and Yesso	131 „



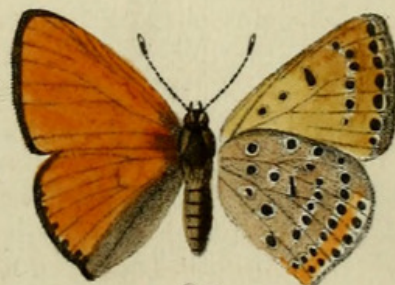
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2



3♂



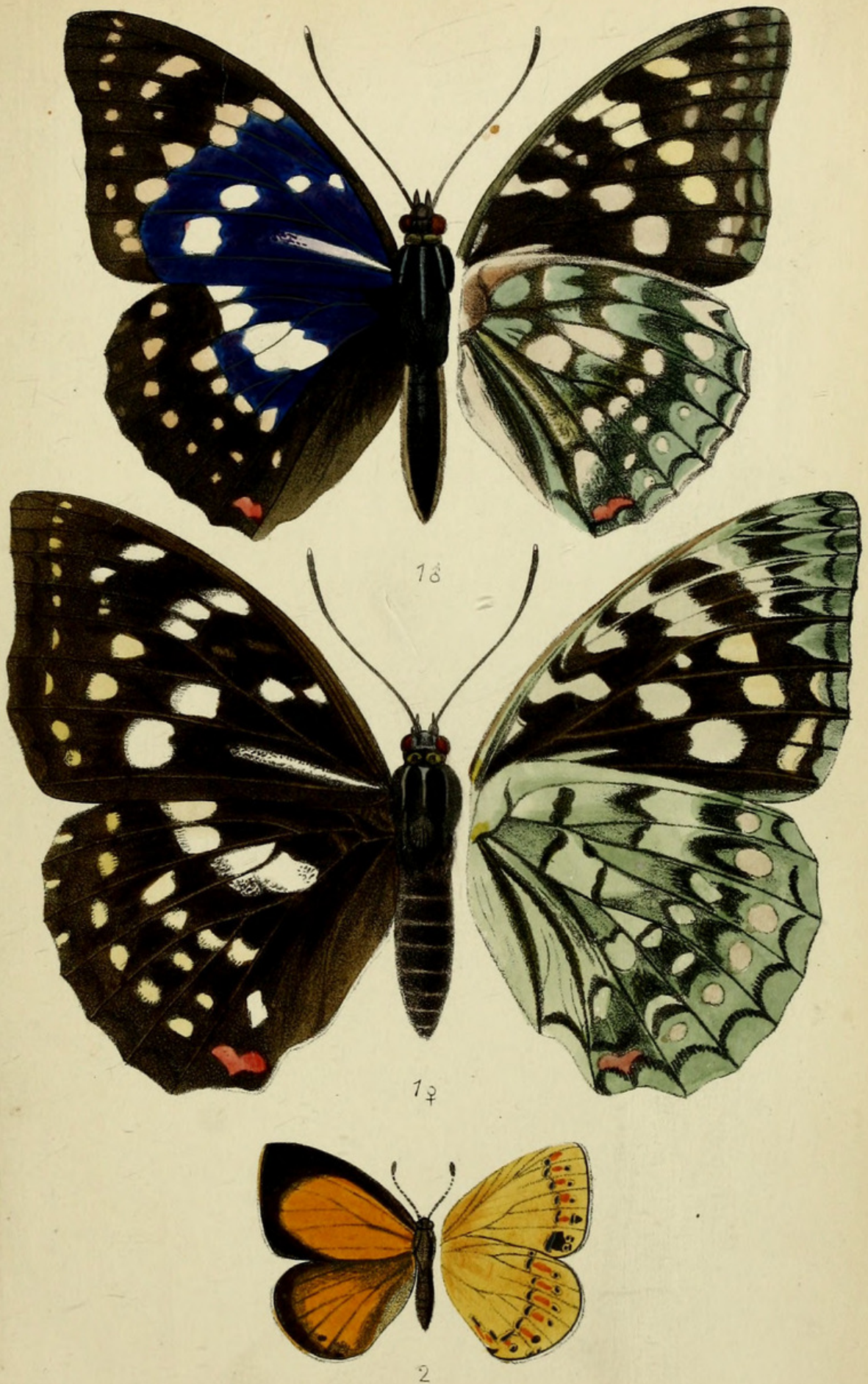
3♀

W Purkiss lith.

Hanhart imp.

Fig. 1. PAPILIO MIKADO. Fig. 2. APATURA CAUTA.
Fig. 3. ♂ ♀ POLYOMMATUS AURATUS.





WPurkiss lith.

Hanhart imp.

Fig. 1. ♂ ♀ EURIPUS COREANUS.
" 2. DIPSAS FLAMEN.



From Japan I have one species (*Papilio mikado*) new to science, and several not hitherto recorded as Japanese.

Of the 91 species from Corea, 71 are common to Japan and Yesso, and 67 to Amurland including Askold, which is only about 300 miles north of Gensan. There are five species which occur in Northern China, but not in Japan or Amurland, and I discovered four new to science.

Of the 89 species which occur in Yesso only the following 8 do not occur in Central Japan :—*Aporia cratægi*, *Dipsas jonasi*, *Thecla signata*, *T. ibara*, *T. fentoni*, *T. butleri*, *Vanessa urticæ*, *Ismene aquilina*; only *T. signata*, *T. ibara*, and *T. butleri* are peculiar to Yesso, the remainder are found in Amurland.

I commenced collecting at Nagasaki during April 1886, and found insect-life very abundant wherever a piece of accessible uncultivated ground was to be met with. This is only the case on hill-sides too steep for cultivation. It is wonderful to see the way in which the hills are cut into steps, supported by huge banks and walls, and kept constantly irrigated by small streams of water, especially in the south. Where a good piece of forest occurs it is usually impenetrable on account of the dense undergrowth of bamboo-grasses and ferns, filled with nauseous plants emitting an effluvium that resembles putrid flesh. This sort of collecting-ground occurs nearly all over the main and southern islands of Japan, and when combined with a mixture of tropical sunshine and tropical rains renders an entomologist's pursuit both arduous and unpleasant.

I found at Nagasaki a small native-built schooner, which was placed at my disposal by the kindness of influential friends. On this craft I lived for some six weeks, landing at a different locality each day and moving on at night. I was thus enabled to work a great deal of ground that had never before been visited by a European of any denomination, without wasting any time in travelling. After an uneventful voyage, considering the intricacy of the navigation and the ignorance of the captain, I again landed at Nagasaki.

During the earlier part of June I took passage to Corea. The first port we touched was Fusan, where we were not allowed on shore owing to the cholera. I managed to evade the quarantine by procuring a boat, which landed me on Deer Island out of sight of the town, and had a fine day's collecting. I next reached Gensan, where I spent about a month. It was a great relief to find one's self in a country where rice was not grown, or only in very small quantities. In the neighbourhood of the sea the ground is hilly and covered with low scrub, mostly dwarf oak seldom over a foot in height and with enormous leaves, azaleas, ferns, chiefly common bracken and *Osmunda*, the latter very small, and wild briars. The most conspicuous flowers are Iris, Spiræas, and Tiger-lilies, all very abundant. Here and there a sheltered ravine is met with containing a few trees, and with a stream running through it. These spots were a perfect paradise to a collector. The reason of the bareness of the coast-hills is owing to the fact that the natives mow them for fuel every autumn. At a distance of about fifteen miles from the sea

the mountains attain a height of four or five thousand feet, and are densely wooded nearly to their summits, some of the timber being very fine. From the summit of So-ko-San, the highest peak, the view consists of a sea of wooded mountains except near the coast, and scarcely a house or sign of cultivation. The natives are harmless, and dirty to an incredible degree. Travelling is difficult on account of the money, which is all copper, and of so low a value that one man can only carry a few shillings' worth. Scarcely any food is procurable, and the native habitations are too lively even for an entomologist. The traveller must make up his mind to live on what he takes with him, and to sleep in the open air or under the verandah of a temple. However, although the weather was bad and living rather rough, I was amply repaid by the results of my collecting. My one regret is that I spent so short a time in the finest country I have ever visited, both for entomology and sport. Early in July I returned to Nagasaki, and went at once to Shimonoseki, a good locality and less sacrificed to "paddy" than most places. From Shimonoseki, the most southern town of Central Japan, to Awanovi, the most northern, I travelled most of the way overland, with poor results. Owing to the cholera I was quarantined and fumigated from one end of the country to the other. Servants died, others refused to go on, or asked exorbitant prices. The authorities invariably chose the best collecting localities for the purposes of cremation; in fact, the whole west coast was entirely demoralized.

Early in August I reached Hakodate, where I had a fortnight's good collecting. I then proceeded to Nemoro on the east coast of Yesso, and procured another ship to take me up to the Kurile Islands. Here the whole country was covered with impenetrable bamboo-grass about 8 feet high, and both collecting (there was very little insect-life) and sport were out of the question. After wasting much valuable time trying to get further north, I turned back. The remainder of my Japanese expedition was on the ordinary tourists' routes. In the whole country I only succeeded in finding two really good collecting districts, viz. the neighbourhood of Hakodate and some well-known mountain-resorts in Central Japan, all of which had been thoroughly worked before.

I succeeded in capturing all the *Rhopalocera* known to Japan with the exception of about six species; I discovered one species new to science and several hitherto unrecorded from Japan. I procured about 15,000 specimens of Moths, which I propose to treat of in another paper, and an enormous number of Coleoptera. Altogether I consider the results attained to have been fairly satisfactory.

Table showing the distribution of the Diurnal Lepidoptera of
Japan, Yesso, and Corea.

		Japan.	Yesso.	Corea.
1.	<i>Papilio machaon</i> , Linn.	*	*	*
2.	— <i>xuthus</i> , Linn.	*	*	*
3.	— <i>bianor</i> , Cr.	*	*	*
4.	— <i>demetrius</i> , Cr.	*		
5.	— <i>macilentus</i> , Jans.	*		
6.	— <i>alcinous</i> , Klug	*		
7.	— <i>helenus</i> , Linn.	*		
8.	— <i>memnon</i> , Linn.	*		
9.	— <i>sarpedon</i> , Linn.	*		
10.	— <i>mikado</i> , Leech	*		
11.	<i>Luehdorfia puziloi</i> , Ersch.	*	*	†
12.	<i>Sericanus telamon</i> , Don. ....	...	...	*
13.	<i>Parnassius glacialis</i> , Butl.	*	*	*
14.	<i>Aporia crataegi</i> , Linn. ....	...	*	†
15.	<i>Pieris rapæ</i> , Linn.	*	*	*
16.	— <i>napi</i> , Linn.	*	*	*
17.	— <i>canidia</i> , Sparrm. ....	...	...	*
18.	— <i>daphidice</i> , Linn. ....	...	...	*
19.	<i>Anthocharis scolymus</i> , Butl.	*	*	
20.	<i>Leucophasia sinapis</i> , Linn.	*	*	*
21.	<i>Rhodocera rhamni</i> , Linn.	*	*	*
22.	<i>Colias palæno</i> , Linn.	*	*	†
23.	— <i>hyale</i> , Linn.	*	*	*
24.	<i>Terias læta</i> , Boisd.	*	...	*
25.	— <i>bethesba</i> , Jans.	*		
26.	— <i>hecabe</i> , Linn.	*	...	*
27.	<i>Miletus hamada</i> , Druce	*		
28.	<i>Curetis acuta</i> , Moore	*		
29.	<i>Amblypodia japonica</i> , Murray	*	...	*
30.	— <i>turbata</i> , Butl.	*		
31.	<i>Niphanda fusca</i> , Brem.	*	*	*
32.	<i>Dipsas flamen</i> , Leech ....	...	...	*
33.	— <i>sæpestriata</i> , Hew.	*	...	†
34.	— <i>lutea</i> , Hew.	*	*	†
35.	— <i>jonasi</i> , Jans. ....	...	*	†
36.	<i>Thecla orientalis</i> , Murray	*	*	*
37.	— <i>smaragdina</i> , Brem.	*	*	*
38.	— <i>japonica</i> , Murray	*	*	*
39.	— <i>signata</i> , Butl. ....	...	*
40.	— <i>arata</i> , Brem.	*	*	†
41.	— <i>tyrianthina</i> , Butl. ....	...	...	*
42.	— <i>attilia</i> , Brem.	*	*	†
43.	— <i>ibara</i> , Butl. ....	...	*
44.	— <i>orsedice</i> , Butl.	*	*	
45.	— <i>fentoni</i> , Butl. ....	...	*	*
46.	— <i>mera</i> , Jans.	*		
47.	— <i>stygiana</i> , Butl.	*		
48.	— <i>butleri</i> , Fenton ....	...	*
49.	— <i>enthea</i> , Jans.	*	*	
50.	— <i>frivaldskyi</i> , Led.	*	*	†
51.	<i>Polyommatus phlæas</i> , Linn.	*	*	*
52.	— <i>auratus</i> , Leech ....	...	...	*
53.	<i>Lycæna bætica</i> , Linn.	*		
54.	— <i>argiades</i> , Pall.	*	*	*
55.	— <i>fischeri</i> , Eversm. ....	...	...	*

		Japan.	Yesso.	Corea.
56.	<i>Lycæna argia</i> , Mén.....	*	*	*
57.	— <i>cleobis</i> , Brem. ....	...	...	*
58.	— <i>argus</i> , Linn.....	*	...	*
59.	— <i>ægon</i> , Schiff. ..	*	*	*
60.	— <i>argiolus</i> , Linn.	*	*	*
61.	— <i>lycormas</i> , Butl.	*	*	
62.	— <i>euphemus</i> , Hb.	*	*	*†
63.	— <i>pryeri</i> , Murray	*	...	†
64.	<i>Libythea lepita</i> , Moore	*		
65.	<i>Dichorragia nesimachus</i> , Boisd.....	*		
66.	<i>Apatura ilia</i> , Schiff.....	*	*	*
67.	— <i>cauta</i> , Leech .....	...	...	*
68.	<i>Euripus coreanus</i> , Leech.....	...	...	*
69.	— <i>charonda</i> , Hew.	*		
70.	— <i>japonicus</i> , Feld.	*	*	
71.	<i>Hestina assimilis</i> , Linn.	?	...	*
72.	<i>Adolias schrenki</i> , Mén. ....	...	...	*
73.	<i>Limenitis helmanni</i> , Led.	*	...	*
74.	— <i>sibylla</i> , Linn.	*	*	*
75.	<i>Cyrestis thyodamas</i> , Boisd.....	*	...	*
76.	<i>Neptis aceris</i> , Lepechin	*	*	*
77.	— <i>lucilla</i> , Schiff.	*	*	*
78.	— <i>pryeri</i> , Butl.....	*	...	*
79.	— <i>alwina</i> , Brem. & Grey	*	...	*
80.	— <i>excellens</i> , Butl.....	*	*	
81.	<i>Vanessa burejana</i> , Brem.....	*	*	*
82.	— <i>levana</i> , Linn.	*	*	*†
83.	— <i>l-album</i> , Esp.	*	*	†
84.	— <i>c-album</i> , Linn.	*	*	*
85.	— <i>c-aureum</i> , Linn.	*	*	*†
86.	— <i>urticæ</i> , Linn. ....	...	*	†
87.	— <i>callirhoë</i> , Fabr.	*	*	*
88.	— <i>cardui</i> , Linn.	*	*	*
89.	— <i>io</i> , Linn.	*	*	*
90.	— <i>charonia</i> , Drury	*	*	*
91.	— <i>antiopa</i> , Linn.....	*	*	†
92.	— <i>xanthomelas</i> , Schiff.	*	*	*
93.	<i>Melitæa aurinia</i> , Rott.....	...	...	*
94.	— <i>phœbe</i> , Schiff.....	*	*	*
95.	— <i>parthenie</i> , Bkh. ....	...	...	*
96.	— <i>dictynna</i> , Esp.....	...	...	*
97.	— <i>athalia</i> , Rott.	*	*	*
98.	<i>Argynnis niphe</i> , Linn.....	*		
99.	— <i>perryi</i> , Butl.....	...	...	*
100.	— <i>daphne</i> , Schiff.	*	*	*
101.	— <i>ino</i> , Esp. ....	...	...	*
102.	— <i>aglaia</i> , Linn.	*	*	*
103.	— <i>adippe</i> , Linn.	*	*	*
104.	— <i>nerippe</i> , Feld.	*	*	*
105.	— <i>sagana</i> , Doubleday	*	*	*
106.	— <i>laodice</i> , Pall.	*	*	*
107.	— <i>anadyomene</i> , Feld.	*	*	*†
108.	— <i>paphia</i> , Linn.	*	*	†
109.	— <i>ruslana</i> , Motsch.	*	*	†
110.	<i>Danais tytia</i> , Gray	*	*	†
111.	<i>Melanargia halimede</i> , Mén.....	...	...	*
112.	<i>Melanitis leda</i> , Linn.	*		

		Japan.	Yesso.	Corea.
113.	<i>Mycalesis gotama</i> , Moore	*		
114.	— <i>perdiccas</i> , Hew.	*	*	*
115.	<i>Ypthima baldus</i> , Fab.	*	*	*
116.	— <i>motschulskyi</i> , Mén.	*	...	*
117.	<i>Erebia sedakovii</i> , Eversm.	*	*	†
118.	<i>Satyrus dryas</i> , Scop.	*	*	*
119.	— <i>hyperanthus</i> , Linn. ....	...	...	*
120.	<i>Pararge achine</i> , Scop.	*	*	*
121.	— <i>deidamia</i> , Eversm.	*	*	*
122.	— <i>maakii</i> , Brem.	*	*	†
123.	<i>Lasiommata epimenides</i> , Mén.	*	*	*
124.	<i>Pronophila schrenkii</i> , Mén.	*	*	*
125.	<i>Lethe sicelis</i> , Hew.	*		
126.	— <i>diana</i> , Butl.	*	*	*
127.	<i>Neope goschkevitschii</i> , Mén.	*	*	
128.	— <i>callipteris</i> , Butl.	*	*	
129.	<i>Cænonympha œdipus</i> , Fabr.	*	...	*
130.	— <i>hero</i> , Linn. ....	...	...	*
131.	<i>Ismene benjamini</i> , Guér.	*		
132.	— <i>aquilina</i> , Speyer ....	...	*	†
133.	<i>Plesioneura curvifascia</i> , Feld.	*		
134.	— <i>bifasciata</i> , Brem. ....	...	...	*
135.	<i>Pterygospidea sinica</i> , Feld.	*		
136.	<i>Daimio tethys</i> , Mén.	*	*	*
137.	<i>Isoteinon lamprospilus</i> , Feld.	*		
138.	<i>Pamphila mathias</i> , Fabr.	*		
139.	— <i>varia</i> , Murray	*	*	
140.	— <i>guttata</i> , Brem.	*	*	*
141.	— <i>jansonis</i> , Butl.	*	...	*
142.	— <i>pellucida</i> , Murray	*	*	*
143.	<i>Hesperia sylvanus</i> , Esp.	*	*	*
144.	— <i>subhyalina</i> , Brem.	*	*	*
145.	— <i>sylvatica</i> , Brem.	*	*	*
146.	— <i>ochracea</i> , Brem.	*	...	*
147.	— <i>rikuchina</i> , Butl.	*		
148.	— <i>flava</i> , Murray	*	*	*
149.	<i>Cyclopides morpheus</i> , Pall. ....	...	...	*
150.	— <i>ornatus</i> , Brem.	*	*	†
151.	<i>Pyrgus inachus</i> , Mén.	*	...	†
152.	<i>Nisoniades montanus</i> , Brem.	*	*	†
153.	<i>Syricthus maculatus</i> , Brem.	*	*	*

1. *PAPILIO MACHAON*, Linn.Var. *asiatica*, Mén. Enum. i. p. 70 (1855).Var. *hippocrates*, Feld. Verh. zool.-bot. Ges. Wien, xiv. p. 314.

Occurs commonly all over Japan and Corea: several broods in the course of the year. The first brood, which appears in March and April, does not differ materially from the European form, but the succeeding broods increase both in size and intensity of colour.

I bred a fine series of vars. *asiatica* and *hippocrates* from ova deposited by a female *P. machaon* of the ordinary type in April at Nagasaki. The imagos appeared during the end of June and beginning of July, some specimens had the usual proportion of black

and yellow, others were of a much deeper yellow than the ordinary type, and some were nearly all black, being by far the most pronounced var. *hippocrates* I have yet seen. Every specimen was much larger than the parent.

The following description of the full-fed larva does not seem to differ in the slightest degree from the common form of *P. machaon* :—

Larva.—Ground-colour of body pale green, smooth; head the same marked with black. Each segment of the larva is divided transversely by a broad black band interrupted on each side by three orange spots, that occurring in the spiracular region being the largest. Each segmental division is marked by a black band, extending in most specimens about halfway down the sides and contracting and expanding with the movements of the larva; legs tipped with black and a black spot above each leg. Each abdominal leg has a broad black band, above which is a large triangular black mark surmounted by two smaller spots; belly paler than dorsal area and spotted at intervals with black. Feeds on the common carrot.

2. PAPILIO XUTHUS, L.

Var. *xuthulus*, Brem. Lep. Ost-Sib. p. 4, t. 1. fig. 2.

Common all over Japan and Corea during the warm months.

The earliest form is "*xuthulus*" in March and April, but this variety does not seem to be nearly so distinct in Japan as in the Amur region, intermediate forms occurring commonly from *xuthulus* to *xuthus*, which continues in turn to vary until a larger and much darker form is reached, which bears the same resemblance to *xuthus* that *hippocrates* does to *machaon*. I have specimens from Nagasaki (July) in which the black markings are very much exaggerated, and the yellow is replaced by a deep buff.

3. PAPILIO BIANOR.

P. bianor, Cr. Pap. Ex. ii. t. 103. f. C (1779).

P. maakii, Mén. Schrenk's Reise, p. 10, t. i. (1859).

P. dehaanii, Feld. Verh. zool.-bot. Ges. Wien, xiv. p. 323 (1864).

P. raddei, Brem. Lep. Ost-Sib. p. 3, t. i.

Var. *japonica*, Butl. Journ. Linn. Soc., Zool. ix. p. 50 (1866).

P. alliacmon, De l'Orza (ex Boisd.), Lép. Jap. p. 9 (1869).

P. tutanus, Fenton, P. Z. S. 1881, p. 855.

This species varies to such an extent that it is impossible to form any correct opinion on the subject until our knowledge of its habits and distribution is considerably increased; the existing arrangements are, however, purely artificial, as none of the characters on which it has been subdivided are constant.

The two most distinct types, viz. *raddei* and *maakii*, have been shown to be seasonal forms of the same species by breeding, which proves the species to be double-brooded. *Dehaanii*, *japonica*, and *alliacmon* are, so far as my knowledge goes, either spring or alpine forms, from which I should infer that they were the first brood of *bianor*, *maakii*, and *tutanus*, which only occur in summer.

Occurs commonly all over Japan and Corea.

4. *PAPILIO DEMETRIUS*.

P. demetrius, Cr. Pap. Ex. iv. t. 385. f. E, F (1782).

P. carpenteri, Butl. Ann. & Mag. Nat. Hist. ser. 5, x. p. 318.

Common in Southern and Central Japan.

The female varies in the red markings, and blue suffusion of hind wing.

The summer brood is larger than the spring form, which Mr. Butler has named *carpenteri*.

5. *PAPILIO MACILENTUS*.

P. macilentus, Janson, Cist. Ent. vol. ii. p. 158.

P. tractipennis, Butl. Ann. & Mag. Nat. Hist. ser. 5, vii. p. 139.

P. scævola, Oberthür, Et. Ent. iv. p. 37.

This species inhabits the mountains of Central and Southern Japan, and is rather rare, especially the female. It is easily distinguished from *P. demetrius* by its extremely long narrow wings and tails.

6. *PAPILIO ALCINOUS*.

P. alcinous, Klug, Neue Schmett. t. i. 1836.

P. spathatus, Butl. Ann. & Mag. Nat. Hist. ser. 5, vii. p. 139.

Common all over Central and Southern Japan.

The summer brood is larger than the spring, and has longer tails. I have some specimens from Southern Japan which are hardly separable from *P. mencijs*, Feld., from N. China.

7. *PAPILIO HELENUS*, Linn.

P. nicconicolens, Butl. Ann. & Mag. Nat. Hist. ser. 5, vii. p. 139.

This fine species is not rare in April at Nagasaki, and in the Provinces of Higo and Satsuma; it also occurs in Tosa.

The yellow marking on the hind wing, on the strength of which the Japanese form has been described as distinct, is not constant. It is in no way separable from Chinese specimens in my possession from Hong-Kong, Foochau, and Ningpo.

8. *PAPILIO MEMNON*, Linn.

P. thunbergii, Siebold, Hist. Nat. Jap. p. 16 (1824).

Not rare in Southern Japan in April and May.

Of a number of females taken in Kiushiu, no two specimens are alike, some of the males vary also in having the red mark at the base of the fore wing, which is only present in the female sex. Specimens I took also at Ningpo, Foochau, Hong-Kong, Saigon, and Singapore present an equal amount of variation.

9. *PAPILIO SARPEDON*, Linn.

Very common in Southern and Central Japan. The summer brood are always larger and darker than the spring form, and have hence been confused with *teredon*, Feld.¹, which does not occur in Japan but in Ceylon.

¹ *P. teredon*, Feld. Reise Nov. Lep. i. p. 61 (1865).

10. *PAPILIO MIKADO*, nov. sp. (Plate XXXV. fig. 1.)

Expanse of wings $3\frac{7}{8}$ inches.

Ground-colour of all the wings black; a narrow straw-coloured streak extends across the base of the fore wing interrupted by the veins. All the wings covered with straw-coloured spots, consisting of a submarginal series of fairly uniform spots running round the outer margin of the wing; a subcostal series of eight spots, three of which are situated in the discoidal cell, a discal series of six graduated spots on the fore wing, which is continued on the hind wing in a wedge-shaped mass, tapering to a blunt point near the anal angle and divided into two by the median vein; the first two spots of the submarginal series of the hind wing, the anal lunule, the upper part of the wedge-shaped mass, and the interior of the abdominal fold are very pale yellow. Underside, a reproduction of the upper surface with most of the spots enlarged and whiter, and with the addition of a yellow spot at the base of the hind wing, and an irregular arrangement of yellow markings between the discal and submarginal spots of the hind wing.

I took a single male specimen about May 20th near Kagoshima in the Province of Satsuma. The nearest allied species is *P. eurypylus*.

11. *LUEHDORFIA PUZILOI*, Ersch.

This is a very early species; it occurs in Yesso, and Mr. H. Pryer has recently discovered a new locality for it in Central Japan.

12. *SERICINUS TELAMON*.

S. telamon, Don. Ins. China, t. xxvii. fig. 1 (1798).

S. montela, Gray, P. Z. S. 1852, p. 71; Cat. Lep. Brit. Mus. i. p. 78, t. xiii. figs. 1, 2.

S. fortunei, Gray, P. Z. S. 1852, p. 72; Cat. Lep. Brit. Mus. i. p. 79, t. xiii. fig. 5.

S. fasciatus, Brem. & Grey, Schmett. nördl. China's, p. 5; Mén. Cat. Mus. Petr. t. vi. fig. 1.

S. cressoni, Reak. Proc. Ent. Soc. Phil. iii. p. 499 (1864).

S. telmona, Gray, P. Z. S. 1852, p. 72; Cat. Lep. Brit. Mus. i. p. 78, t. xiii. fig. 3.

S. greyi, Brem. & Grey, Schmett. nördl. China's, p. 6, t. i. fig. 2.

A very variable species; out of a series of about 33 specimens which I took at Gensan at the end of June and beginning of July, no two specimens are alike, and they all differ slightly from any specimens in the National collection.

13. *PARNASSIUS GLACIALIS*.

P. glacialis, Butl. Journ. Linn. Soc., Zool. ix. p. 50 (1866).

Occurs at Nikkō and Hakodate in June and July, also in Corea (*H. Strecker*). It is not an alpine species, as its name would lead one to suppose, but occurs at a very slight elevation in Central Japan and on the sea-level at Hakodate.

14. *APORIA CRATÆGI*, Linn.

Specimens from Hakodate do not seem to differ in any way from European examples.

15. *PIERIS RAPÆ*, Linn.

P. crucivora, Boisd. Sp. Gén. i. p. 522 (1836).

Var. *orientalis*, Oberth. Et. Ent. v. p. 13 (1880).

Ganoris crucivora, Butl. Ann. & Mag. Nat. Hist. ser. 5, ix. p. 18.

Very common in Japan, Corea, and N. China, especially frequenting market-gardens. It has nothing whatever in common with *P. brassicæ*, which I believe does not occur in Eastern Asia, but is a good local form of *rapæ*, in which the base and all of the fore wing of the female is much suffused with greyish-brown scales, and the second spot of the fore wing of the male shows through the upper surface, as is usual in the typical female. This latter, however, is not a constant character, many males occurring in no way different to the common form, and I took several specimens without any black spots on the fore wing. It is very variable in size. Mr. H. Pryer informs me that the larvæ, which feed on the cultivated Cruciferae, do not differ from the typical forms, nor does the pupa.

16. *PIERIS NAPI*, Linn.

P. melete, Mén. Cat. Mus. Petr. ii. p. 113, t. x. figs. 1, 2 (1855).

P. aglaope, Motsch. Et. Ent. 1860, p. 28.

P. megamera, Butl. Cist. Ent. i. p. 173 (1873).

P. castoria, Reak. Proc. Ac. Nat. Sci. Phil. 1866, p. 238.

Ganoris dulcinea, Butl. Ann. & Mag. Nat. Hist. ser. 4, xix. p. 96.

Common all over Japan and Corea, and extremely variable. It is difficult to get two specimens exactly alike. In Central and Northern Japan *napi* seems to be the spring form, and there are specimens in Mr. Fenton's collection in no way separable from British examples, and I have all the intermediate forms between *napi* and *melete* in my own collection. In Southern Japan the larger and darker forms predominate, and there is less difference between the broods. In Central Japan I took specimens identical with *ajaka*, Moore, and at Nemoro, a very bleak place in N.E. Yesso, I found forms varying from small *melete* to typical "*castoria*."

In no single locality, so far as my experience goes, is any one form constant.

17. *PIERIS CANIDIA*, Sparrm.

P. gliciria, Cram. Pap. Exot. ii. t. 171.

P. claripennis, Butl. Ann. & Mag. Nat. Hist. ser. 4, xix. p. 96.

P. sordida, Butl.

The black spots on the fore wing of this species vary as much as in *P. rapæ*, var. *crucivora* ♂. I took a very large series in Hong-Kong, Foochau, Ningpo, and Gensan, and they varied equally in every locality. The Corean specimens are usually smaller than Chinese examples.

18. *PIERIS DAPLIDICE*, L.Var. *bellidice*, O.*Anthocharis belemda*, var. *orientalis*, Brem. Lep. Ost-Sib. p. 8.

This species occurs at Gensan in June, flying over corn-fields in the neighbourhood of the Japanese settlement ; it does not differ from European specimens.

19. *ANTHOCHARIS SCOLYMUS*.*A. scolymus*, Butl. Journ. Linn. Soc., Zool. ix. p. 52 (1866).*A. thunbergii*, de l'Orza, Léop. Jap. p. 14 (1849).

Common all over Japan in early spring ; it is very variable in size.

20. *LEUCOPHASIA SINAPIS*, Linn.Var. *amurensis*, Mén. Schrenk's Reise, p. 15, t. i. figs. 4, 5.*L. sinensis*, Butl. Cist. Ent. i. p. 173 (1877).*L. vivilia*, Jans. Cist. Ent. ii. p. 272 (1878).*L. morsei*, Fenton, P. Z. S. 1881, p. 855.

Common all over Japan and at Gensan. All the intermediate forms between *amurensis* and *sinapis* exist, and forms without any black apex to the fore wing corresponding to var. *diniensis* are not unusual.

21. *RHODOCERA RHAMNI*, Linn.*R. nipalensis*, Doubl. Gen. Diurn. Lep. p. 71 (1847) ; Gray, Lep. Nep. t. v. fig. 1 (1831).*R. maxima*, Butl. Trans. Ent. Soc. 1885, p. 407.*R. aspasia*, Mén. Schrenk's Reise, p. 17, t. i. fig. 8.*R. acuminata*, Feld. Wien. ent. Mon. vi. p. 23 (1862).

Occurs all over Japan and Corea. The *ramni* (*maxima*) form occurs at low elevations in Central Japan. I only took "*acuminata*" in the mountains ; from Gensan I have a specimen of true *ramni*, and I have just received from Ningpo two specimens which resemble *acuminata* in the shape of the wing, and *ramni* var. *farinosa*¹ in colour. There can be little doubt that these refer to one species, but I can form no opinion with any certainty until I receive larger series.

22. *COLIAS PALÆNO*, Linn.

Occurs in Yesso and mountain-districts of Central Japan.

23. *COLIAS HYALE*, Linn.*C. poliographus*, Motsch. Et. Ent. ix. p. 29 (1860).*C. simoda*, de l'Orza, Léop. Jap. p. 16 (1869).*C. neriene*, Fisch., Motsch. Et. Ent. ix. p. 29.*C. erate*, Esp., Murray, Ent. Mon. Mag. xiii. p. 34 (1876).*C. erate* ab *helictha*, Led., Brem. Lep. Ost-Sib. p. 93.*C. subaurata*, Butl. Ann. & Mag. Nat. Hist. ser. 5, vii. p. 138.*C. elwesii*, Butl. Ann. & Mag. Nat. Hist. ser. 5, vii. p. 135.*C. pallens*?, Butl. Journ. Linn. Soc., Zool. ix. p. 50.

Common all over Japan and Corea. The spring form is rather smaller than the summer brood.

¹ *R. farinosa*, Zell. Isis, 1837, p. 5 ; Mann, Wien. ent. Mon. v. p. 157, t. ii. f. 6.

In one spot near Nagahama (Lake Biwa) I found the forms described as *poliographus*, *simoda*, *subaurata*, and *elwesii* all together; and of six pairs which I took in copulá and kept separately labelled, only two pairs were of the same form, viz., *simoda*; the remainder were as follows:—

2 cases of *simoda* ♂ and *elwesii* ♀.

1 case of *subaurata* ♂ and *elwesii* ♀.

1 case of *simoda* ♂ and *poliographus* ♀.

The inference is that they belong to the same species; otherwise they hybridize in a manner totally unprecedented and highly improbable.

The type of *pallens* is such a bad specimen, that it is impossible to say what it is.

24. TERIAS LÆTA.

T. læta, Boisd. Sp. Gén. i. p. 674.

Var. *jaegeri*, Mén. Cat. Mus. Petr. p. 84, t. ii. fig. 1 (1855).

T. subfervens, Butl.

A common species in spring and autumn all over Southern and Central Japan. A series in the National collection labelled *subfervens*, Butl., do not differ materially from Japanese specimens, and some of the Northern Indian forms are not separable.

Mr. H. Pryer says that it occurs all through the summer.

25. TERIAS BETHESBA.

T. bethesba, Janson, Cist. Ent. ii. p. 272 (1878).

This species, which is very distinct from the other Japanese *Terias*, occurs in Central and Southern Japan in May and again in August.

26. TERIAS HECABE, Linn.

T. hecabeoides, Mén. Cat. Mus. Petr. i. p. 85, t. ii. fig. 2.

T. sinensis, Luc. Rev. Zool. 1852, p. 429.

T. mariesi, Butl. Trans. Ent. Soc. 1880, p. 198, t. vi. figs. 1-7.

T. anemone, Feld. Wien. ent. Mon. vi. p. 23 (1862).

T. mandarina, de l'Orza, Lép. Jap. p. 18 (1869).

T. hobsoni, Butl. P. Z. S. 1880, p. 668.

T. hybrida, Butl. Trans. Ent. Soc. p. 199.

T. connexiva, Butl. Trans. Ent. Soc. p. 199.

Common all over Southern and Central Japan, and recorded from S.E. Corea. It is needless to say anything about this well-discussed question, as Mr. H. Pryer has settled it in the most conclusive manner by breeding all the forms known from Japan, from eggs laid by the same parent.

27. MILETUS HAMADA.

Miletus hamada, Druce, Cist. Ent. i. p. 361 (1875).

I found this species common all up the west coast of Central Japan; it also occurs at Nikko. It seems fond of water, and flew about amongst the thick bamboo-grass on the banks of streams in July and August.

28. CURETIS ACUTA.

Curetis acuta, Moore, Ann. & Mag. Nat. Hist. ser. 4, xx. p. 50.

Not rare in some of the mountain-districts of Central Japan, in July and August.

The female is very scarce, and has, I believe, never before been described.

"Expanse of wings about $1\frac{1}{2}$ inch, narrower than in the male; apex of wings produced to a much sharper point; ground-colour of all the wings black with a brownish tinge. In the centre of fore wings is an elongated bluish-white patch, and a fainter bluish-white crescent occurs on the hind wing starting from the costa; fringes of fore wings black, of hind wings bluish grey. Under surface of all the wings uniform silvery white as in the male."

29. AMBLYPODIA JAPONICA.

Amblypodia japonica, Murray, Ent. Mon. Mag. xi. p. 170 (1875).

This is a common species in Southern Japan in May. I took it also in Gensan, Corea, and again in Central Japan in the autumn.

30. AMBLYPODIA TURBATA.

Amblypodia turbata, Butl. Ann. & Mag. Nat. Hist. ser. 5, vii. p. 133; P. Z. S. 1881, p. 855.

This fine species seems to be very rare in Japan; I found it in May in the province of Satsuma flying in company with the last species, and there are specimens from Nikko in the National collection. It can be instantly distinguished from *A. japonica* by its tails.

31. NIPHANDA FUSCA.

Niphanda fusca, Butl. P. Z. S. 1881, p. 883.

Thecla fusca, Brem. & Grey, Schm. nördl. China's, p. 9 (1853); Mén. Cat. Mus. Petr. i. t. iv. fig. 5 (1855).

♀. *Amblypodia dispar*, Brem. Lep. Ost-Sib. p. 24, t. iii. fig. 4 (1864).

Polyommatus fuscus, Oberthür, Et. Ent. ii. p. 20, t. iv. fig. 5.

Common all over Japan and Corea in July and August; some specimens are much larger than others, but the markings and colour seem to be constant.

32. DIPSAS FLAMEN, Leech, nov. sp. (Plate XXXVI. fig. 2.)

♀. Expanse of wings $1\frac{3}{4}$ inch.

Ground-colour of all the wings dull orange, deeply bordered round the costal and outer margins with black; veins of the hind wings deeply marked with black towards the outer margin; a small black spot occurs near the outer margin of the hind wing between the first and second submedian veins. Fringes short, dirty white. Underside of all the wings yellowish buff, outer margins bordered by a narrow black line. A submarginal band of bright orange elongated spots bordered on each side by a row of silver spots runs round all the wings, interrupted at the inner angle of the fore wing by a conspicuous black double spot. There is a small black dot

between the fifth orange spot of the fore wing and the margin, and a row of three black spots near the anal angle of the hind wing.

This species is allied to *Thecla raphaelis*, and *michaelis*, Oberthür. It agrees with *T. raphaelis* in the absence of tails and in the design of the underside; it is, however, much larger and there is a larger proportion of black on the upper surface. The upper surface of the fore wing agrees with *T. michaelis*.

I only succeeded in taking a single specimen of this species, which was flying over small trees near the monastery of So-ko-San about 14 miles N.W. of Gensan, on June 15, 1886.

33. DIPSAS SÆPESTRIATA.

Dipsas sæpestriata, Hew. Ill. Diurn. Lep. p. 67, t. xxvi. figs. 7, 8 (1865).

Common about Yokohama (*H. Pryer*). I took it in July near Nagahama, Lake Biwa.

34. DIPSAS LUTEA.

Dipsas lutea, Hew. Ill. Diurn. Lep. p. 67, t. xxvi. figs. 9, 10 (1865).

I took this, together with the next species, near Hakodate in August; it occurs also in Central Japan.

35. DIPSAS JONASI.

Dipsas jonasi, Jans. Cist. Ent. ii. p. 157.

This rare species occurs in Yesso. I took it in August flying about small trees.

36. THECLA ORIENTALIS.

T. orientalis, Murray, Ent. Mon. Mag. xi. p. 169 (1875).

Occurs plentifully all over Japan and at Gensan during the end of June, July, and the beginning of August. It differs conspicuously in colour, shape, and size from the other green *Theclæ*; the female is variable in colour and markings, and the bar-markings on the centre of each wing on the underside are liable to be either partially or totally absent.

37. THECLA SMARAGDINA.

T. smaragdina, Brem. Lep. Ost-Sib. p. 25, t. iii. fig. 5.

T. taxila, Brem. Lep. Ost-Sib. p. 26, t. iii. fig. 7.

This species, which occurs in Yesso, and I believe at Nikko, occupies an intermediate place between *T. orientalis* and *T. japonica*, from the latter of which it differs in the bar mark of the fore wing on the underside, which mark, however, Mr. Elwes says is not a constant character in the female. As it is not constant in either sex of *T. orientalis*, I fail to see how any great importance can be attached to it. The colour of the underside varies according to the condition of the specimens, the old ones being much paler than freshly emerged examples.

Mr. H. Pryer is of opinion that this insect is a hybrid between

T. orientalis and *T. japonica*, which is quite possible, but his views require verification.

38. THECLA JAPONICA.

T. japonica, Murr. Ent. Mon. Mag. xi. p. 169 (1874).

T. taxila, Brem. Lep. Ost-Sib. t. viii. fig. 2.

T. regina, Butl. P. Z. S. 1881, p. 853.

T. fasciata, Janson, Cist. Ent. ii. p. 272, t. v. fig. 4 (1874).

Ab. b. *T. aurorina*, Oberthür, Et. Ent. v. p. 18.

Occurs all over Japan and at Gensan in June and July. There are four distinct forms of female, none of which are rare:—

α. Uniform brown throughout.

β. With a fuscous patch on fore wing.

γ. With a blue patch containing a fuscous mark.

δ. With a blue patch.

Besides these forms all the intermediates occur.

The Korean specimens are rather smaller than the Japanese form; and in Yesso, and also at high altitudes in Central Japan, occurs a boreal form which is quite similar to the usual type, only on a much smaller scale. I have a series also from Amurland which are identical and present similar variations of the female.

Dipsas taxila, Hew. Ill. Diurn. Lep., Suppl. p. 16, t. iv. figs. 16, 17.

It is absolutely impossible to say which species this is intended for, as the plate is very inferior and the description insufficient. A series of *T. orientalis* are in the Hewitson collection under the name of *T. taxila*, and Oberthür considers the figure and description to represent *T. smaragdina*.

39. THECLA SIGNATA.

T. signata, Butl. P. Z. S. 1881, p. 854; Aid to Identif. of Ins. pl. 114.

The type of this species is in Mr. Fenton's collection; it is in bad condition. The fact of the cell of the hind wing being filled in with violet separates it at once from any known Japanese species. I take the type to be a female, and should not be surprised if it had a green male. Recorded from Kuramatsunai, August.

40. THECLA ARATA.

T. arata, Brem. Lep. Ost-Sib. p. 25, t. iii. fig. 6.

Does not seem to be common; I took it at Hakodate in August. It is also recorded from Central Japan.

41. THECLA TYRIANTHINA.

T. tyrianthina, Butl. Ann. & Mag. Nat. Hist. ser. 5, vol. vii. p. 34, t. iv. fig. 5.

I took this species at Gensan in July. It is very distinct from *T. arata*; on the upper surface it is darker and on the underside it

is fawn-coloured with the characteristic bars and markings of a darker shade; whilst the underside of *T. arata* is mouse-coloured with ashy-white markings. The type in the National collection is from Kiukiang.

42. *THECLA ATILIA*.

T. atilia, Brem. Lep. Ost-Sib. p. 24, t. ii. fig. 3.

Occurs in Northern and Central Japan. Mr. H. Pryer says it is common in the neighbourhood of Yokohama.

43. *THECLA IBARA*.

Thecla ibara, Butl. P. Z. S. 1881, p. 852; Aid to Identif. of Ins. pl. 113.

This species, which must be extremely rare, differs from the other Japanese *Theclæ* in having a greenish underside with a white submarginal band and a yellowish blotch, containing two black dots at the anal angle of the hind wing.

I believe the only specimen of this species is the type in Mr. Fenton's collection, which was taken in the second week of July on the Ibara pass, Dewa.

44. *THECLA ORSEDICE*.

T. orsedice, Butl. P. Z. S. 1881, p. 852.

Of this distinct species I only took a single specimen at Tsuruga, on the west coast of Central Japan. The type is recorded from Iwashiro in Yesso.

45. *THECLA FENTONI*.

Strymon fentoni, Butl. P. Z. S. 1881, p. 854; Aid. to Identif. Ins. pl. 115.

Closely allied to *w-album*, but blacker, the tails longer, the line on the underside of fore wing straighter, and the yellowish blotch at the anal angle of the underside of the hind wing quite different. There is an unnamed specimen from Pekin in the National collection which is, I believe, this species. The type, which is in Mr. Fenton's collection, is from Shiribetsu in Yesso. I took a single specimen at Gensan at the end of June.

46. *THECLA MERA*.

T. mera, Janson, Cist. Ent. ii. p. 157 (1877).

This seems a scarce species, and is I believe only recorded from Nikko.

47. *THECLA STYGIANA*.

T. stygiana, Butl. Ann. & Mag. Nat. Hist. ser. 5, vii. p. 35, t. iv. fig. 6 (1881).

Allied to the last species, but distinct; it is also recorded from Nikko.

48. *THECLA BUTLERI*.

T. butleri, Fenton, P. Z. S. 1881, p. 853; Aid to Identif. of Ins. pl. 115.

This is a very distinct species, the type is in Mr. Fenton's collection. The underside somewhat resembles *T. enthea*, Jans., but has dark bars and stripes in place of many of the spots; there is a white submarginal band containing five black spots on the upper surface of the hind wing. Mr. Fenton records the capture of this species from the top of the Peak, Hakodate.

49. *THECLA ENTHEA*.

T. enthea, Jans. Cist. Ent. ii. p. 157 (1877).

I took some very much worn specimens of this insect in Yesso at the beginning of August; it is also reported from Nikko. It seems rare.

50. *THECLA FRIVALDSKYI*.

Thecla frivaldskyi, Led. Verh. zool.-bot. Ges. Wien, 1855, p. 100.

Lycæna ferrea, Butl. Journ. Linn. Soc., Zool. ix. p. 57 (1866).

Satsuma ferrea, Murray, Ent. Mon. Mag. xi. p. 168 (1874).

Occurs all over Japan and in Gensan; it is a very variable species, but I think it is identical with the Amur form.

51. *POLYOMMATUS PHLÆAS*, Linn.

Var. *eleus*, Fab.

Var. *chinensis*, Feld. Verh. zool.-bot. Ges. Wien, xii. p. 488 (1862).

Common all over Japan and Corea. It is an extremely variable species both in size, colour, and markings; during the summer the typical form gives way entirely to the var. *eleus*; a few intermediate forms occur, and the specimens are darker in some localities than in others. The largest and darkest I found at Nagasaki in July.

52. *POLYOMMATUS AURATUS*, nov. sp. (Plate XXXV. fig. 3, ♂ ♀.)

Expanse of wings, ♂ $1\frac{2}{5}$, ♀ $1\frac{1}{2}$ inch.

Male. Upper surface of all the wings bright golden copper, with narrow black outer margins; fringes black, except on the inner margin of hind wings; on the outer margins of the hind wings are six black dots, the two nearest the anal angle being nearer together than the others.

Female. Fore wings golden copper, much suffused with darker scales, margined broadly on the outer border with black; two black discoidal spots, followed by a band of broad black dashes extending across the wing; hind wing sooty black, bordered by a broad golden copper band notched at the edges.

Underside of both sexes: fore wings yellowish buff, bordered on the outer margin with dirty grey, inside of which is a row of seven very

distinct black spots ; on the disk is a second irregular row of black spots ; there are three spots in the discoidal cell, the outer one of which is the largest. Hind wings greyish buff, outwardly margined by a broad orange band, bordered on each side with a row of black dots ; an irregular arrangement of black spots, margined with dirty white, is scattered over the remainder of the wing.

I took this species, during heavy rain, at rest on stems of coarse grass in a swampy gully near the monastery of Chang-Do, about 25 miles south of Gensan, in July 1886.

This species is allied to *P. dispar*, but its colour resembles *ochimus* ; the fringes are black, the discoidal spots are absent on all the wings of male, the female has a row of dashes on the fore wings instead of spots, and the disk of hind wings is not suffused with copper ; the underside is also different.

53. *LYCÆNA BÆTICA*, Linn.

Occurs in several parts of Japan, but is very local ; it does not seem to occur in Corea.

54. *LYCÆNA ARGIADES*, Pall.

L. hellotia, Mén. Cat. Mus. Petr. ii. p. 124, t. x. fig. 6 (1857).

L. praxiteles, Feld. Verh. zool.-bot. Ges. Wien, xii. p. 489 (1862) ; Reise Nov. ii. p. 281, t. xxxv. fig. 5.

Everes hellotia, Butl. Ann. & Mag. Nat. Hist. ser. 5, ix. p. 17.

Common all over Japan and Corea during the warm months. It varies in size from $\frac{3}{4}$ in. to $1\frac{1}{2}$ inch. The female also varies in colour and markings, some specimens being much suffused with blue.

55. *LYCÆNA FISCHERI*, Eversm.

Lycæna filicaudis, Pryer.

Occurs at Gensan in June. It is also very common in the Snowy Valley, Ningpo, in April. The pale band on the outer margin of the hind wing may be either very distinct, faint, or totally absent. The spots on the underside have a great tendency to coalesce in the manner common to many of this genus.

56. *LYCÆNA ARGIA*.

L. argia, Mén. Cat. Mus. Petr. ii. p. 125, t. x. fig. 7.

L. japonica, Murray, Ent. Mon. Mag. xi. p. 167 (1874).

L. alope, Fenton, P. Z. S. 1881, p. 851.

Of this difficult species I have only been able to form an opinion by collecting a series of over 200 specimens, being representatives from every locality I visited, both in China, Japan, and Corea, and ranging from the beginning of March to the end of October.

L. japonica, Murray, is said to differ from *argia* in the absence of the marginal spots of the hind wing in female ; this distinction is without the least scientific value, and every grade occurs, from the most distinctly marked to those destitute of any spots whatever.

In spring and autumn there is a large pale form of male (connected by grades with typical *argia*), which has been allotted to *japonica*, Murray (which was described from a single female).

The females in spring and autumn seem to be much suffused with blue, which is not the case with the summer broods.

Although I have not seen Mr. Fenton's type of *alope*, yet I have no hesitation in including it as a form of this species. The principal points Mr. Fenton enumerates as differences between *alope* and *argia* are (1) the deeper violet colouring, (2) the broader border to primaries, (3) the black spot absent from cell of primaries (underside). The colour of *argia* is very variable in intensity, and the width of the marginal border seems to vary in proportion to the depth of the ground-colour. With regard to the black spot in the cell of primaries (underside), I have specimens with spots of varying sizes and intensity, specimens without spots, and several specimens with a spot on one wing and not on the corresponding one. The female of *alope* has, I believe, not yet been described.

57. *LYCÆNA CLEOBIS*.

L. cleobis, Brem. Bull. Acad. Petr. iii. p. 472 (1861).

L. argonides, Brem. Lep. Ost-Sib. p. 28, t. iii. fig. 8 (1864).

Common at Gensan in June and July; the specimens are far larger than those from the Amur region. The males cannot possibly be confounded with *ægon* or *argus*, on account of their darker colouring; and the females differ on the underside by their brighter colour, sharper defined markings, and larger spots.

58. *LYCÆNA ARGUS*, Linn.

Occurs commonly at Gensan in June and July; also in Central Japan (Oiwake, Oct.), and is reported from Yesso. The Korean specimens are rather smaller than the Japanese, and have a broader black margin to hind wing.

59. *LYCÆNA ÆGON*, Schiff.

L. micrargus, Butl. Cist. Ent. ii. p. 283 (1878).

L. pseudægon, Butl. P. Z. S. 1881, p. 851.

Common in Gensan in June and July. It occurs also in Yesso and in mountain districts of Central Japan. Korean specimens are usually much above the average size.

Lycæna iburiensis, Butl. P. Z. S. 1881, p. 852; Aid Identif. Ins. pl. 113, is a form of *ægon*. The type is in Mr. Fenton's collection.

60. *LYCÆNA ARGOLUS*, L.

L. ladonides, de l'Orza, Lép. Jap. p. 20.

L. levetti, Butl. Ann. & Mag. Nat. Hist. ser. 5, xi. p. 111.

Common all over Japan and Corea during the warm season, and as variable in Eastern Asia as it is in Europe.

61. *LYCÆNA LYCORMAS*.

L. lycormas, Butl. Journ. Linn. Soc., Zool. ix. p. 57 (1866).

L. scylla, Oberth. Et. Ent. v. p. 22.

Occurs in Yesso, and I believe also in the mountains of Central Japan. It is found also on the Amur. Its nearest European ally is *cyllarus*, Rott., a very variable species, which also occurs in Amurland.

62. *LYCÆNA EUPHEMUS*, Hb.

L. kazamoto, Druce, Cist. Ent. i. p. 361 (1875).

Occurs in Gensan, Yesso, Kurile Islands, and in mountain districts of Central Japan; some specimens are remarkably dark, and resemble the alpine forms of Europe.

63. *LYCÆNA PRYERI*.

L. pryeri, Murray, Ent. Mon. Mag. x. p. 126 (1873).

Mr. H. Pryer says that this species is common about Yokohama in the spring. The only specimens I took of it occurred near the summit of Ibuki Yama (Lake Biwa) at about 5000 feet above the sea in July (about the 18th).

64. *LIBYTHEA LEPITA*.

L. lepita, Moore, Cat. Lep. E. I. C. Mus. i. p. 240.

Occurs in Central Japan and also in Yesso. I saw it flying in September in the mountains near Oiwake.

65. *DICHORRAGIA NESIMACHUS*, Boisd.

Fairly common in Central Japan; it occurs in mountain districts. I have never seen a living female; they seem to be very scarce.

66. *APATURA ILIA*, Schiff.

Var. *clytie*, Schiff.

A. here, Feld. Wien. ent. Mon. vi. p. 27 (1862).

A. substituta, Butl. Cist. Ent. i. p. 159 (1873).

Common at Gensan and in Yesso in July and August; also in Central Japan. The typical form seems to be much rarer than var. *clytie* (*substituta*) just as it is in Europe.

67. *APATURA CAUTA*¹, nov. sp. (Plate XXXV. fig. 2.)

♂. Expanse of wings $3\frac{1}{4}$ inches.

Fore wing with a very deep indentation on its outer margin; ground-colour of all the wings light brown, with a purplish reflection in certain lights. Fore wing—a large irregular-shaped black patch extends from the base to about the middle of the wing, suffused

¹ [While this paper was passing through the press, vol. 3 of Romanoff's 'Mémoires sur les Lépidoptères' (St. Pétersbourg, 1887) has been received in London, including a paper by Fixsen, in which 93 Butterflies (besides Moths) from the Corea are enumerated. *Apatura princeps*, Fixsen, l. c. p. 289, pl. xiii. figs. 7a, b, is apparently identical with *A. cauta*, Leech.—W. F. K.]

down its centre with paler scales; beyond this patch is a circular black spot; a black double spot occurs in the cell, beyond which are two large black patches touching the costa; margins of all the wings black; an irregular black submarginal band runs round all the wings, dividing near the anal angle and enclosing two circular spots of the ground-colour; veins deeply marked with black, especially near the outer margins. Underside—markings of the fore wing reproduced, with the addition of a white costal mark, and six white spots about the apex: hind wing—all the veins broadly marked with black; the ground-colour replaced over a great part of the surface by dirty white. Underside of the abdomen white.

Allied to *Castalia* (nom. præocc., Moore) *dichroa*, Koll., and *chandra*, Moore, both Himalayan species.

I managed after much difficulty to secure a single male, which was flying strongly about some oak trees at Chang-Do, south of Gensan, Corea, beginning of July.

68. *EURIPUS COREANUS*, nov. sp. (Plate XXXVI. fig. 1, ♂ ♀.)

Expanse, ♂ $4\frac{1}{2}$, ♀ 5 inches.

Wings of male dark brown, the basal half suffused with purple; a straight white streak, originating at the base of fore wing, traverses about $\frac{1}{3}$ of its width; a submarginal row of spots runs round all the wings, terminating at the anal angle in a bright carmine elongated spot; the discal area of both wings is traversed by two series of spots arranged irregularly, but concavely to the base of the wings, besides which there are two (sometimes three) spots near the apex of the fore wing and near the anal angle of the hind wing, situated inside the submarginal band. The two discoidal spots are often confluent. All spots situated on the purple colouring are pure white, those on the remainder of the wings pale yellow. Wings of the female dark brown, spotted as the male; all the spots about the costa and disk of both wings white, the remainder pale yellow; anal lunule carmine. Underside of both sexes—fore wings black; costa, apex, and outer margin pale bluish green, all markings of the upper surface reproduced; hind wings pale bluish green; veins very prominent, markings of the upper surface reproduced, mostly bordered with black; anal lunule carmine.

The underside of this species is sufficiently distinct to prevent any possible confusion with *Euripus charonda*. I took a large series of both the species (one in Japan, the other in Corea) and they seem to be quite constant.

This insect occurs commonly in a large forest about 15 miles south of Gensan in July; it frequents the tops of trees, and is very difficult to take in good condition on account of its powerful flight.

69. *EURIPUS CHARONDA*.

Euripus charonda, Hew. Ex. Butt. iii. t. 4. fig. 1 (1863).

This large species is common about Yokohama, Lake Biwa, and the province of Kaga; it flies very high, only occasionally descending, like *Apatura*.

70. EURIPUS JAPONICUS.

Euripus japonica, Feld. Wien. ent. Mon. vi. p. 27 (1862).

Common in Southern and Central Japan. I found it plentifully in the provinces of Higa and Satsuma in May, and again in Central Japan in July, where the specimens were smaller and darker. It is also recorded from Yesso and N. Japan.

71. HESTINA ASSIMILIS, Linn.

Recorded from Japan. I never met with it, and it is not included in Mr. Pryer's catalogue of the Lepidoptera of Japan. I have specimens taken at Ningpo in June; also recorded from S. Corea.

72. ADOLIAS SCHRENKI.

A. schrenki, Mén. Bull. Acad. Petr. xvii. p. 215 (1859); Schrenk's Reise, ii. p. 31, t. iii. fig. 2.

I took this rare species at Port Lazaref near Gensan, in July; it did not appear to be very plentiful.

73. LIMENITIS HELMANNI.

L. helmanni, Lederer, Verh. zool.-bot. Gesellsch. Wien, 1853, p. 356, t. i. fig. 4.

L. homeyeri, Tancré, Ent. Nachr. 1881, p. 120.

Very common at Gensan in June and July, I also took it at Fusan (S.E. Corea) and at Nagasaki; in the Nagasaki specimens the bands and spots are narrower and smaller.

74. LIMENITIS SIBYLLA, Linn.

Occurs commonly all over Japan and Corea. In many of the Japanese specimens the fourth white spot from the costa of the fore wing is as large as the rest, thus causing the band to be continuous.

75. CYRESTIS THYODAMAS.

C. thyodamas, Boisd., Doubl. & Hewit. Gen. Diurn. Lep. t. 32. fig. 3 (1848).

Recorded by Mr. H. Pryer from Yamato and Kiushiu.

76. NEPTIS ACERIS.

N. aceris, Lepechin, Reise, i. p. 203, t. xvii. figs. 5, 6.

Var. *intermedia*, Pryer.

A good local form of *aceris*, occurring very commonly in Japan and Corea, also N. China.

The underside is much darker than in European specimens, being almost chocolate-colour; it is very variable in the proportion of black and white, also in size. A succession of broods occurs during the warm months.

77. NEPTIS LUCILLA, Schiff.

Var. *ludmilla*, Herr.-Schäff.

Occurs in Japan, Yesso, and Corea; it is not nearly so common as *aceris*.

78. NEPTIS PRYERI.

N. pryeri, Butl. Trans. Ent. Soc. 1871, p. 561; Lep. Ex. t. 63. fig. 4; Jans. Cist. Ent. ii. p. 155.

Limenitis arboretorum, Oberthür, Et. Ent. ii. p. 24, t. iii. fig. 3.

Occurs in June and July. Very common in Gensan, where it occurs on the sea-level. In Japan it seems to be a mountain insect, and I took it near Lake Biwa. I have specimens from Ningpo which do not vary from the Japanese and Corean specimens.

79. NEPTIS ALWINA, Brem. & Grey.

Limenitis kæmpferi, de l'Orza, Léop. Jap. p. 40.

Not rare in Central Japan; it occurs also in Gensan in June, though not common.

80. NEPTIS EXCELLENS.

N. excellens, Butl. Cist. Ent. ii. p. 282 (1878).

This species, which appears to be distinct from *alwina*, is recorded from Nikko, Fújesan, and Yesso.

81. VANESSA BUREJANA.

V. burejana, Brem. Lep. Ost-Sib. p. 15, t. i. fig. 8.

V. fallax, Jans. Cist. Ent. ii. p. 271 (1878).

V. strigosa, Butl. Journ. Linn. Soc., Zool. ix. p. 54 (1866).

Occurs both in Corea and Japan in a variety of forms; it is difficult to tell whether some of the forms belong to this species or the next without an enormous series from different localities.

82. VANESSA LEVANA, Linn.

Var. *prorsa*, Linn.

Ab. *porima*, Ochs.

Araschnia obscura, Fenton, P. Z. S. 1881, p. 850.

This species also occurs both in Japan and Corea. The only form under which I took it was var. *prorsa*; the specimens are absolutely identical with European ones in my own collection.

83. VANESSA L-ALBUM, Esp.

I took this species in the mountains near Oiwake in October. Mr. H. Pryer records it also from Nikko and Yesso.

84. VANESSA C-ALBUM, Linn.

V. fentoni, Butl. Cist. Ent. ii. p. 281 (1878).

V. hamigera, Butl. Ann. & Mag. Nat. Hist. ser. 4, xix. p. 92.

V. lunigera, Butl. P. Z. S. 1881, p. 850.

Common in mountain-districts of Central Japan in September and October. Occurs also in Yesso. As variable in Japan as in Europe.

85. VANESSA C-AUREUM, Linn.

V. angelica, Cr. Pap. Ex. iv. t. 388. figs. G, H.

V. pryeri, Janson, Cist. Ent. ii. p. 269 (1878).

Occurs commonly in Gensan. I took it also at several localities in

Central Japan and Yesso. *V. "pryeri"* is only taken in autumn or after hybernation. The other forms of this variable species occur all through the summer.

86. *VANESSA URTICÆ*, Linn.

V. connexa, Butl. P. Z. S. 1881, p. 851.

This is a very good local form of *urticæ*. I took it about half-way up the volcano near Hakodate in September, and I believe it does not occur in other parts of Japan. I hear that the same form occurs in Amurland with the intermediate forms. An English entomologist in Hakodate informed me that the larva was like that of *urticæ*, and fed upon nettles.

87. *VANESSA CALLIRHOË*, Fabr.

Papilio atalanta indica, Herbst.

Common all over Japan and Corea.

88. *VANESSA CARDUI*, Linn.

This is not a common species; I took it at Yesso and Corea, and it occurs near Yokohama.

89. *VANESSA IO*, Linn.

Not very common in Central Japan, where it keeps to the mountains, but plentiful in Yesso and Corea. It does not vary in the least from European specimens.

90. *VANESSA CHARONIA*.

V. charonia, Drury, Ex. Ent. i. t. 15 (1773); Brem. Lep. Ost-Sib. p. 18.

Var. *glauconia*, Motsch. Et. Ent. ix. p. 28 (1860).

Common all over Japan and Corea. It is a variable species in the width of the blue submarginal bands and the size and colour of the costal spots, which may be either blue or white; the blue submarginal band of the fore wing, which usually ceases at its junction with the larger costal spot, is in some specimens carried up as far as the apical spot, noticeably so in specimens taken in the mountain-districts of Central Japan in October.

91. *VANESSA ANTIOPA*, Linn.

I took this species at Hakodate in August and in Oiwake (Central Japan) in October. It does not differ from European examples, and has the same habit of settling on the road, and, when disturbed, taking a short flight and returning to the same spot.

92. *VANESSA XANTHOMELAS*, Schiff.

Common all over Japan and Corea. Some specimens are remarkably large and bright.

93. *MELITÆA AURINIA*.

M. aurinia, Rott. Naturf. vi. p. 5 (1775).

Occurs at Gensan in June; the specimens seem larger and paler than European ones.

94. *MELITÆA PHŒBE*, Schiff.

Var. *sibirica*, Staud. MSS.

Var. *ætherea*, Ev. Lep. Ross. p. 73, t. ix. figs. 5, 6.

M. scotosia, Butl. Cist. Ent. ii. p. 282 (1878).

Common at Fusan and Gensan (Corea) in June and July, and extremely variable, some specimens being the true var. *ætherea*, with few markings, others nearly black. Nearly all the specimens are much larger than European examples. It occurs in Yesso, and, I believe, in mountain-districts of Central Japan.

95. *MELITÆA PARTHENIE*, Bkh.

Var. *orientalis*, Mén. Schrenk's Reise, p. 23, t. ii. fig. 5.

I took what I believe to be this species commonly at Fusan, S.E. Corea, at the beginning of June.

96. *MELITÆA DICTYNNA*.

M. dictynna, Esp. t. 48. fig. 2, *a, b* (1779).

Var. *protomedia*, Mén. Schrenk's Reise, p. 23, t. ii. figs. 6, 7.

This occurred commonly with the last species in June at Fusan.

97. *MELITÆA ATHALIA*, Rott.

Var. *dubia*, Staud.

Var. *orientalis*, Mén. Schrenk's Reise, p. 23, t. ii. fig. 5.

M. niphona, Butl. Cist. Ent. ii. p. 281 (1878).

Occurs commonly at Fusan and Gensan (Corea), also in Yesso and in mountain-districts of Central Japan. Corean specimens are usually paler than Japanese; but this species is so variable that it is impossible to form a correct opinion concerning it without longer series than at present exist in this country.

98. *ARGYNNIS NIPHE*, Linn.

I took this species commonly at Nagasaki and in the provinces of Higo and Satsuma in May. On one occasion I found the larva, pupa, and imago all together in the same place.

Larva of *Arg. niphe*, Kagoshima, May 10, 1886:—

Length $1\frac{1}{2}$ inches.

Ground-colour of body, head, and legs velvety black; dorsal stripe deep orange; abdominal legs externally tipped with a brownish-orange spot; spines branched, four on each of the first three segments, six on each of the remainder, with the exception of the anal segment, which has only four; the two dorsal spines of the second segment point forward; spines on the first three segments and the dorsal pair of the fourth segment black, the remainder are of a bright

dark red, tipped with black ; on each side of the body, from the fifth segment onwards, is an irregular network of faint pale markings.

Pupa. Light brown, with darker markings, having two spines on the under surface of each abdominal segment ; the thoracic segments have each two bright gold spots on the under surface ; the head terminates in two short horny projections.

Remains ten days to a fortnight in pupa.

Food-plant : *Viola* sp.

99. ARGYNNIS PERRYI?

? *Brenthis perryi*, Butl. Ann. & Mag. Nat. Hist. ser. 5, ix. p. 16 (1882).

This insect, which is fairly common at Gensan in July, seems close to *A. oscarus*, Eversm., but is larger, paler, and differs on the underside. It is not a constant species.

100. ARGYNNIS DAPHNE, Schiff.

A. rabdia, Butl. Ann. & Mag. Nat. Hist. ser. 4, xix. p. 93.

Var. *fumida*, Butl. Ann. & Mag. Nat. Hist. ser. 5, ix. p. 16.

Not rare in Central Japan and Yesso, and very common at Gensan, where the specimens are remarkably fine.

101. ARGYNNIS INO, Esp.

Common at Gensan in June and July. The specimens are far larger than European examples.

102. ARGYNNIS AGLAIA, Linn.

A. fortuna, Janson, Cist. Ent. ii. p. 154 (1877).

Occurs plentifully at Gensan in June. I took the same species in N.W. Japan in July ; they compare well with Amur specimens.

103. ARGYNNIS ADIPPE, Linn.

Var. *chlorodippe*, H.-S.

Var. *cleodoxa*, Ochs.

Var. *cleodippe*, Staud.

A. pallescens, Butl. Cist. Ent. i. p. 164 (1873).

A. vorax, Butl. Trans. Ent. Soc. 1871, p. 403.

A. locuples, Butl. Ann. & Mag. Nat. Hist. ser. 5, vii. p. 134.

This very variable species is extremely common all over Japan and Corea, as well as several other forms quite as distinct as many named ones, which have so far escaped being separated. I have a fine series from Amurland, which compare well with the Japanese and Corean specimens, of which I took about 250, among which were some wonderful aberrations and varieties.

104. ARGYNNIS NERIPPE.

A. nerippe, Feld. Wien. ent. Mon. vi. p. 24 (1862).

A. coreana, Butl. Ann. & Mag. Nat. Hist. ser. 5, ix. p. 15 (1882).

A very distinct species, common all over Japan and Corea. It differs markedly from *adippe*, the only species with which it could

be confounded, by its larger size, smaller spots, and markings, and general paler appearance. *Adippe*, except when faded, has always a bright chestnut tint; *nerippe* is fawn-coloured. The female is very rare in proportion to the male, and is far larger than any *adippe* I have ever seen.

Coreana, Butl., is said to differ from *nerippe* in the prominence of the sexual patch on the first median branch of the fore wing; this character is variable and may be altogether absent. I brought home over a hundred specimens, which show a good deal of variation, but none of any specific importance.

105. ARGYNNIS SAGANA, Doubleday.

Damora paulina, Nordm. Bull. Mosc. 1851, iv. p. 440, t. xii. figs. 1, 2, ♀.

Very common all over Japan and Corea. I have a large series also from Ningpo and Amurland; they are remarkably constant, although the Amur specimens are smaller.

106. ARGYNNIS LAODICE.

A. laodice, Pall. Reise, i. p. 470 (1771).

Var. *japonica*, Mén. Cat. ii. p. 152, t. x. f. 3.

Common all over Japan and Corea. The largest specimens represent *japonica*, and from Ningpo I have a larger form still.

107. ARGYNNIS ANADYOMENE, Feld.

A. ella, Brem. Lep. Ost-Sib. p. 94, t. viii. fig. 1 (1864).

Common all over Japan and Corea. Identical with Amur and North-China specimens.

108. ARGYNNIS PAPHIA, Lind.

A. paphioides, Butl. Ann. & Mag. Nat. Hist. ser. 5, vii. p. 134.

Common in Japan and Corea. They are rather larger than the European form and darker. The female is intermediate between the usual type and var. *valesina*. I have the true var. *valesina* from Ningpo.

109. ARGYNNIS RUSLANA.

A. ruslana, Motsch. Bull. Mosc. 1866, iii. p. 117.

A. lysippe, Jans. Cist. Ent. ii. p. 154 (1877).

This species shares the characters of *paphia* and *laodice*—the shape of the wings and markings of upper surface being allied to *paphia*, the underside of hind wings reminding one of *laodice*. It is not rare at Hakodate in August, and I took it also at Nikko in September. It is the same size as *paphia*.

110. DANAIS TYTIA.

D. tytia, Gray, Lep. Ins. Nep. p. 9, t. ix. fig. 2.

This fine species occurs all over Japan. I observed a curious habit this Butterfly has, on the island of Kami Koshigi, off the coast of Satsuma. Just at dusk they ceased flying, and each chose

out a small dead branch of a fir tree, on which it hung close to the trunk with the wings folded over its back. They were very easy to see and appeared never to choose a large branch or one more than about fifteen feet above the ground. By working with my net on a long bamboo I succeeded in procuring a long series in a very short time (in May). I also took it in Hakodate in August. Pryer says it is very common in mountain-districts of Central Japan.

111. *MELANARGIA HALIMEDE*.

M. halimede, Mén. Schrenk's Reise, p. 37, t. iii. figs. 6, 7.

This species is extremely common at Gensan in July. It is very variable, some specimens being much blacker than others.

112. *MELANITIS LEDA*, Linn.

Var. *ismene*, Cram. Pap. Ex. i. t. 26. figs. A, B (1775).

Recorded from Nikko by Maries, and from the island of Shikoku Ohodaisan in Yamato by Mr. H. Pryer.

113. *MYCALESIS GOTAMA*.

M. gotama, Moore, Cat. Lep. E. I. C. i. p. 232 (1857).

Sadarga gotama, Moore, Trans. Ent. Soc. 1880, p. 157.

Common in Southern and Central Japan.

114. *MYCALESIS PERDICCAS*.

M. perdiccas, Hew. Ex. Butl. iii. *Myc.* t. iii. fig. 15 (1862).

Gareis perdiccas, Moore, Trans. Ent. Soc. 1880, p. 157.

Mycalesis sangaica, Butl. Ann. & Mag. Nat. Hist. ser. 4, xix. p. 95.

Mortanda sangaica, Moore, Trans. Ent. Soc. 1880, p. 169.

Occurs all over Japan and at Gensan. It appears to me to be quite distinct from the last species. Out of a very large number I have not a single intermediate form.

115. *YPTHIMA BALDUS*, Fabr.

Y. argus, Butl. Journ. Linn. Soc., Zool. ix. p. 56 (1866).

Common all over Japan and Corea. Very variable in the size and position of the ocelli, and the shade of the ground-colour of the under-side.

116. *YPTHIMA MOTSCHULSKYI*.

Y. motschulskyi, Brem. & Grey, Schmett. nördl. China's, p. 8; Mén. Cat. Mus. Petr. i. t. vi. fig. 5.

A very distinct species, common at Gensan and Fusan. I also took it at Nagasaki. It is a good deal larger than *baldus*, and has only one ocellus on the hind wing.

117. *EREBIA SEDAKOVII*.

E. sedakovii, Eversm. Bull. Mosc. 1847, ii. p. 70, t. i. figs. 5, 6.

E. nipponica, Jans. Cist. Ent. ii. p. 153, t. v. fig. 5 (1877).

E. scoparia, Butl. P. Z. S. 1881, p. 849.

This species occurs in mountain-districts of Central Japan and also in Yesso.

118. SATYRUS DRYAS.

Papilio dryas, Scop. Ent. Carn. p. 153 (1763).

S. bipunctatus, Motsch. Et. Ent. ix. p. 29.

S. sibirica, Staud. Cat. p. 29.

Very common all over Japan and Corea. Amongst a large series I took some very fine aberrations.

119. SATYRUS HYPERANTHUS, Linn.

This species is recorded from Possiet Bay, N.E. Corea.

120. PARARGE ACHINE, Scop.

P. achinoides, Butl. Cist. Ent. ii. p. 283 (1877).

Occurs in Gensan, and also in Central and Northern Japan. The form is the same as that which occurs in Amurland.

121. PARARGE DEIDAMIA.

P. deidamia, Ev. Bull. Mosc. 1851, i. p. 617.

P. menetriesi, Brem. & Grey, Schmett. nördl. China's, p. 8; Mén. Cat. i. t. 6. fig. 4.

Occurs at Gensan, Yesso; also in Central Japan.

122. PARARGE MAAKII.

P. maakii, Brem. Lep. Ost-Sib. p. 22, t. iii. fig. 2.

Lasiommata marginalis, Motsch. Bull. Mosc. 1866, i. p. 190.

I found this species in Yesso, and Mr. H. Pryer has it from Yamato.

123. LASIOMMATA EPIMENIDES.

L. epimenides, Mén. Schrenk's Reise, p. 39, t. iii. figs. 8, 9.

Neopefentoni, Butl. Ann. & Mag. Nat. Hist. ser. 4, xix. p. 91.

This is not a common species. I have taken it at Gensan, Hakodate, and it occurs on the volcano Assamayana in Central Japan.

124. PRONOPHILA SCHRENKII.

P. schrenkii, Mén. Schrenk's Reise, p. 33, t. iii. fig. 3.

Common in Gensan, North-west Japan, and Yesso. It flies in dense underwood, and is hence rather hard to take, and seldom in fine condition. The Japanese specimens are larger and paler than those from the Amur and Corea.

125. LETHE SICELIS.

Debis sicelis, Hew. Ex. Butt. iii. *Deb.* t. i. fig. 3.

Occurs commonly in mountain-districts of Central Japan in July and August.

126. LETHE DIANA.

L. diana, Butl. Journ. Linn. Soc., Zool. ix. p. 55 (1866).

L. whitelyi, Butl. Ann. & Mag. Nat. Hist. ser. 3, xix. p. 403, t. ix. fig. 8.

L. consanguis, Butl. Ann. & Mag. Nat. Hist. ser. 5, vii. p. 133.

Common all over Japan during the warm weather; very variable in size, shade, and markings, and extremely difficult to take in good condition.

I took it also in Corea, both at Gensan and Fusan.

127. NEOPE GOSCHKEVITSCHII.

N. goschkevitschii, Mén. Cat. Mus. Petr. ii. p. 121, t. x. fig. 4 (1855).

N. nipponica, Butl. Ann. & Mag. Nat. Hist. ser. 5, vii. p. 133.

Common all over Japan. There are several broods, and some specimens are much darker than others.

This species is very fond of settling on tree-trunks with its wings folded, where it is difficult to detect on account of its protective colouring.

128. NEOPE CALLIPTERIS.

N. callipteris, Butl. Ann. & Mag. Nat. Hist. ser. 4, xix. p. 92.

This is a mountain species, and occurs in Yesso and Central Japan.

129. CÆNONYMPHA ŒDIPUS, Fab.

C. annulifer, Butl. Ann. & Mag. Nat. Hist. ser. 4, xix. p. 91.

Occurs in mountain-districts of Central Japan, and at Fusan and Gensan, Corea, in June and July.

Rather larger than European examples.

130. CÆNONYMPHA HERO, Linn.

C. hero, var. *perseis*, Led. Verh. zool.-bot. Ges. Wien, 1853, p. 360.

Common at Gensan in June.

131. ISMENE BENJAMINI.

I. benjamini, Guér. Deless. Souv. Inde, ii. p. 79, t. 22. figs. 2, 2 a.

I. benjamini, var. *japonica*, Murray, Ent. Mon. Mag. xii. p. 4 (1875).

Common in Southern Japan in May; also at Nikko and Yamato (Pryer).

132. ISMENE AQUILINA.

Ismene aquilina, Speyer, Stett. ent. Zeit. 1879, p. 346.

Proteides chrysægla, Butl. P. Z. S. 1881, p. 856.

Ismene janowskii, Oberthür, Et. Ent. v. p. 23, t. i. fig. 2 (1880).

I only met with this species at Hakodate in August.

133. PLESIONEURA CURVIFASCIA.

P. curvifascia, Feld. Wien. ent. Mon. vi. p. 29. n. 29 (1862).

P. alysos, Moore, P. Z. S. 1865, p. 789.

Hesperia alysos, Boisd. MS.

This species, which is new to Japan, occurs plentifully in a small



Leech, John Henry. 1887. "2. On the Lepidoptera of Japan and Corea.-Part I. Rhopalocera." *Proceedings of the Zoological Society of London* 1887, 398-431.
<https://doi.org/10.1111/j.1096-3642.1887.tb02985.x>.

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