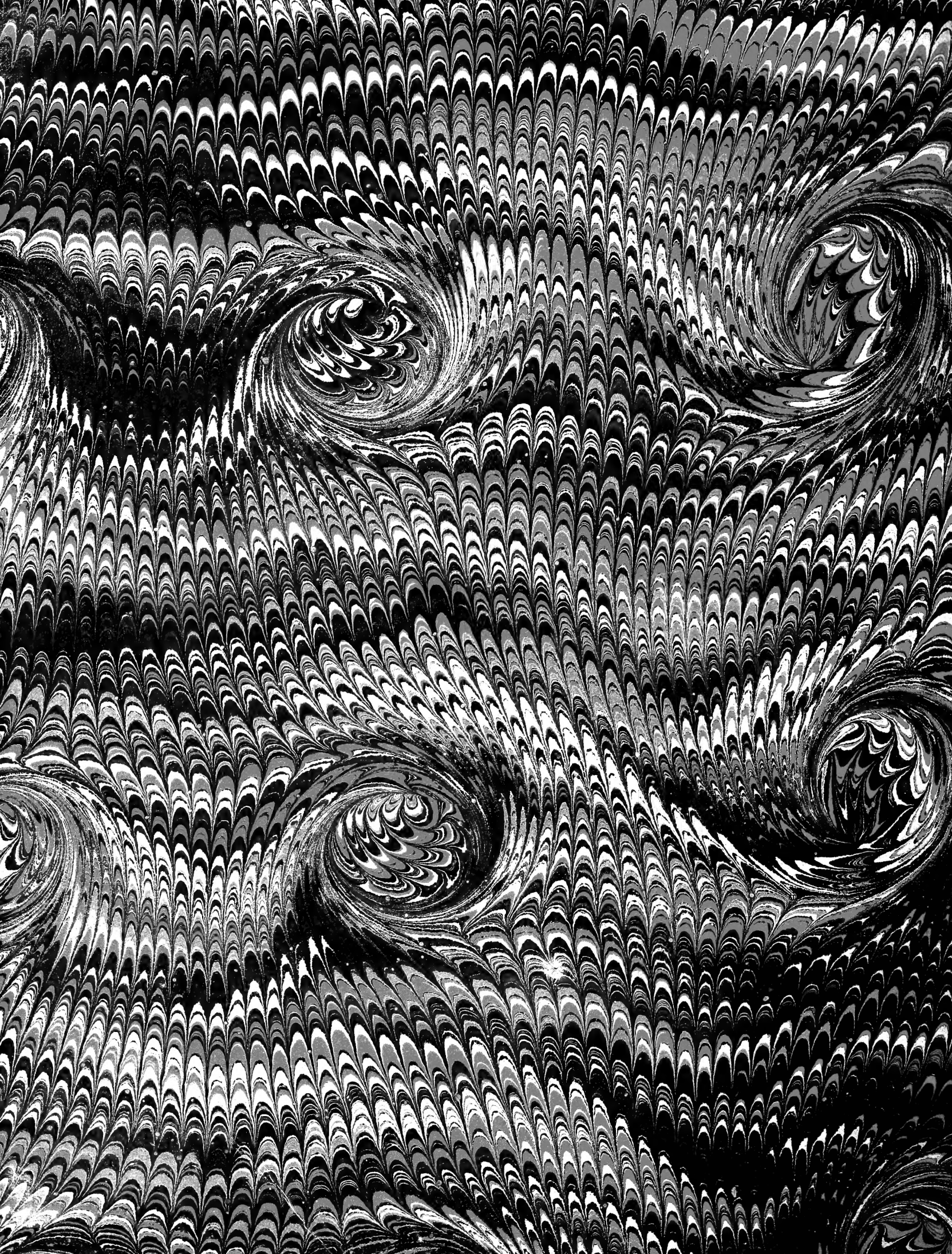
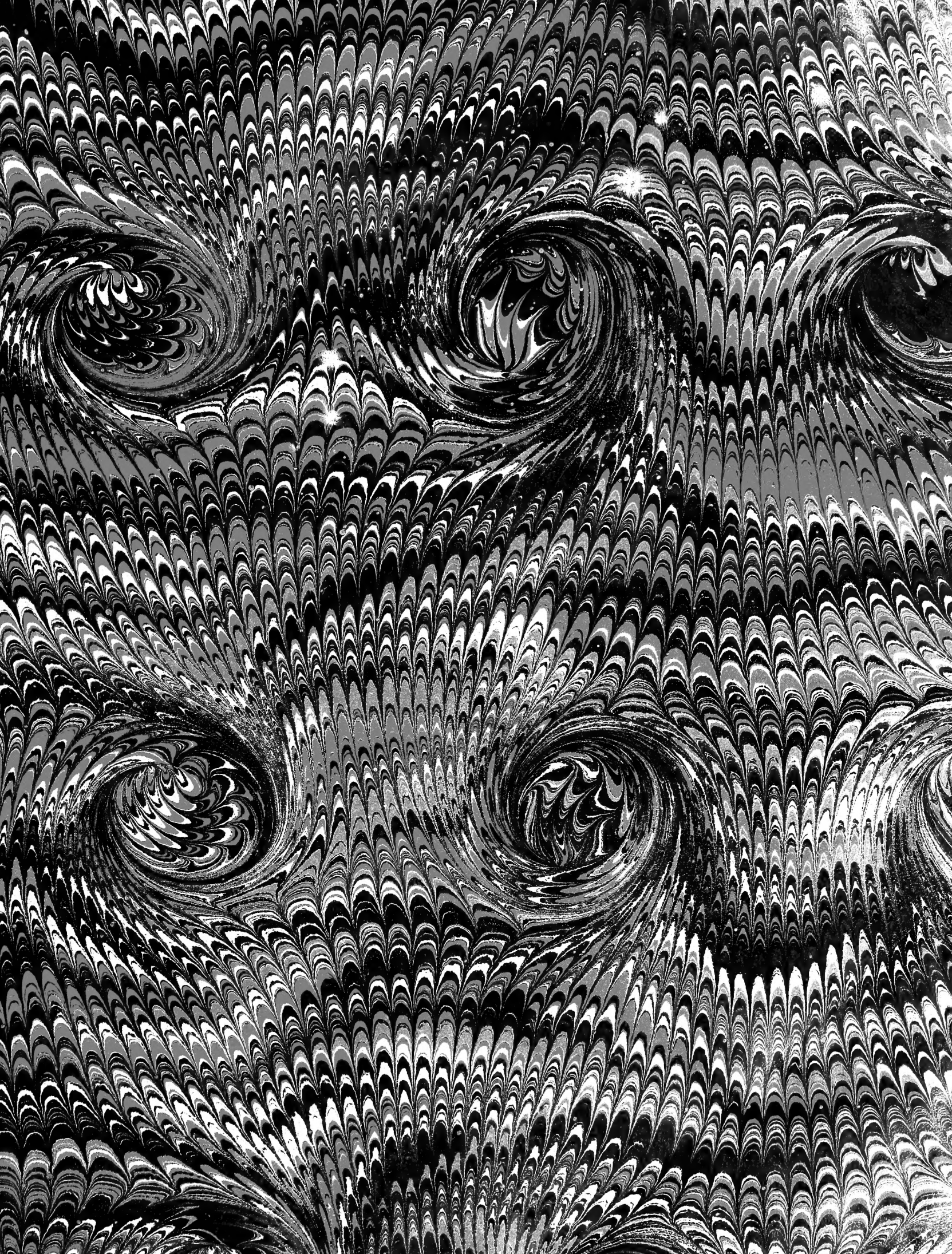


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Insects







PART III.]

DECEMBER, 1889.

[PRICE \$4.

RHOPALOCERA NIHONICA:

A DESCRIPTION OF THE

BUTTERFLIES OF JAPAN.

BY

H. PRYER.

YOKOHAMA:

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RHOPALOCERA NIHONICA.

27

84. *Vanessa charonia*, Drury. (Pl. 7, fig. 4.)

Var. *glauconia*, Motsch.

Localities—Yokohama, Yezo.

Food plant—Smilax China, L.

Time of appearance—August.

Very common about Yokohama. This species is variable in the size and colour of its markings.

85. *Melitæa phœbe*, Schiff. (Pl. 7, fig. 5.)

Var. *sibirica*, Stdgr.

Var. *ætheria*, Ev.

M. scotosia, But.

Locality—Asamayama.

Time of appearance—July.

Varies greatly in size and coloration.

86. *Melitæa athalia*, Rott. (Pl. 7, fig. 6.)

M. nippona, But.

Locality—Asamayama.

Time of appearance—July.

This species also varies much in size and coloration.

87. *Melitæa n. sp.?* (Pl. 7, fig. 7.)

Locality—Asamayama.

Time of appearance—August.

This may be only an extraordinary variety of *M. athalia*.

As Mr. Elwes well remarks, the genus *Melitæa* is an extremely puzzling one, and requires an immense series of specimens to illustrate it.

88. *Atella phalanta*, Drury. (Pl. 7, fig. 10.)

Locality—Sonogi, about 30 miles from Nagasaki.

Time of appearance—October.

The specimen figured was taken in 1880 by the Rev. W. Andrews. Mr. Hewitson's catalogue includes specimens from Calabar, Natal, Madagascar, and Mekian. The species is figured in the *Rhopalocera Malayana* (Pl. 9, fig. 4.)

89. *Argynnis niphe*, Linn. (Pl. 7, fig. 8A, 8B.)

Localities—Yokohama, Nagasaki, Tosa, Hachijo.
Time of appearance—March to July.

Rare in the vicinity of Yokohama, but seems to be common in South Japan.

90. *Argynnis daphne*, Schiff. (Pl. 7, fig. 9.)

A. rabdia, But.

Localities—Nikko, Asamayama, Yezo.
Time of appearance—July.

Varies greatly in size and coloration. It is common at Nikko and in Yezo.

91. *Argynnis aglaia*, Linn. (Pl. 7, fig. 11.)

A. fortuna, Janson.

Localities—Fujisan, Yezo.
Time of appearance—September.

This is not a common insect.

92. *Argynnis adippe*, Linn. (Pl. 7, fig. 12.)

A. pallescens, But.

Localities—Yokohama, Fujisan, Ôyama, Asamayama, Yezo, &c.

Common everywhere.

93. *Argynnis nerippe*, Feld. (Pl. 8, fig. 1-A, 1-B.)

Localities—Ôyama, Asamayama, Fujisan, Kanosan, Yezo.
Time of appearance—August.

Very abundant in the mountains.

94. *Argynnis anadyomene*, Feld. (Pl. 8, fig. 2.)

A. ella, Brem.

Localities—Yokohama, Yezo.
Time of appearance—July, August.

Very common about Yokohama.

95. *Argynnis sagana*, Doubl. (Pl. 8, fig. 3.)

A. paulina, Nordm.

Localities—Yokohama, Asamayama, Yezo.
Time of appearance—July.

This species is common about Yokohama. The two sexes show a very remarkable differentiation in coloration. The specimen figured is a male.

96. *Argynnis paphia*, Linn. (Pl. 8, fig. 4.)

A. paphioides, But.

Localities—Ôyama, Asamayama, Kanosan, Fujisan, Yezo.

Time of appearance—July, August.

This is a mountain species. I have taken it once, however, at Yokohama.

97. *Argynnis laodice*, Pall. (Pl. 8, fig. 5.)

Var. *japonica*, Mén.

Localities—Yokohama, Yezo.

Time of appearance—August.

Common about Yokohama.

98. *Argynnis ruslana*, Motsch. (Pl. 8, fig. 6.)

A. lysippe, Janson.

Localities—Yokohama, Nikko, Yezo.

Time of appearance—September.

Mr. Elwes remarks that this species comes very near *A. laodice*, Pall. It looks like a hybrid, but the specimens in my possession are as yet too few to enable me to give a decided opinion on the subject.

Family DANAIIDÆ.

99. *Danais tytia*, Gray. (Pl. 8, fig. 9.)

Localities—Yokohama, Fujisan, Yamato, Ôyama, Atami, Kanosan, Yezo.

Time of appearance—May, August, September.

This is scarce about Yokohama, but I generally see two or three every year. It is much more abundant on the mountains, and I have taken as many as five specimens, at one sweep of the net, on the summit of a mountain in Yamato, near Yoshino, on the path leading to O-mine San-jo-san.

Family SATYRIDÆ.

100. *Melanitis ismene*, Moore. (Pl. 8, fig. 7.)

Locality—Yamato.

Time of appearance—October.

This is a very rare insect. I saw only two specimens in Yamato, both of which I captured. They were flying round the bole of a cryptomeria growing on the mountain pass leading up to Ôdaisan.

101. *Melanitis leda*, Linn. (Pl. 8, fig. 8.)

Localities—Tosa, Nikko (Mr. Maries).

Time of appearance—July, August.

Very rare. I have one specimen only, captured on the borders of Tosa and Iyo, in Shikoku. It was flitting among the tall stems of the cultivated hemp, and was, in consequence, very difficult to capture. I saw only two specimens.

102. *Melanitis n. sp.?*

Locality—Nagasaki.

I have only one specimen, received from Mr. Ota. My brother informs me that this comes nearest to *M. solandra* from Tahiti. It would be exceedingly interesting could a large series be obtained.

103. *Mycalesis gotama*, Moore. (Pl. 9, fig. 1.)

Locality—Yokohama.

Time of appearance—

This is very common about Yokohama, where it frequents dark thickets.

104. *Mycalesis perdiccoas*, Hew. (Pl. 9, fig. 2.)

Locality—Yokohama.

Time of appearance—

Also very common, frequenting the same places as *M. gotama*, which it resembles in markings. Both species appear at the same time.

105. *Ypthima baldus*, Fab. (Pl. 9, fig. 3.)*Y. argus*, But.

Localities—Yokohama, Asamayama, Yezo.

Time of appearance—August.

One of the most abundant butterflies about Yokohama. I have two specimens very dark in the underside from this locality.

106. *Erebia sedakovii*, Ev. (Pl. 9, figs. 4A, 4B.)*E. nipponica*, Janson.? *E. scoparia*, But.

Localities—Asamayama, Nikko, Yezo.

My Yezo specimen is *E. scoparia*, which appears to me probably only a local differentiation of the above, although I have not seen a sufficient number of specimens of either to enable me to decide.

107. *Satyrus dryas*, Scop. (Pl. 9, fig. 5.)*S. bipunctatus*, Motsch.

Localities—Yokohama, Asamayama, Yezo.

Time of appearance—August.

Very abundant about Yokohama flitting among the grass.

108. *Pararge achine*, Scop. (Pl. 9, fig. 6.)*P. achinoides*, But.

Localities—Nikko, Asamayama, Yezo.

Time of appearance—July, August.

Abundant at Nikko in June and July. The Yezo specimens are generally larger and lighter colored.

109. *Pararge deidamia*, Ev. (Pl. 9, fig. 7.)*P. ménétrièrei*, Brem.

Localities—Nikko, Asamayama, Yezo.

Time of appearance—July, August.

Not uncommon at Nikko.

110. *Pararge maackii*, Brem. (Pl. 9, fig. 8.)*Lasiommata marginalis*, Motsch.

Localities—Yamato, Yezo, Tokyo (Fenton).

This is not a common insect.

111. *Lasiommata epimenides*, Mén. (Pl. 9, fig. 9.)*Neope fentoni*, But.

Localities—Yezo, Asamayama.

Time of appearance—July, August.

Very rare in Japan, but, according to Mr. Elwes, not uncommon in various parts of the Amoor region.

112. *Lethe sicelis*, Hew. (Pl. 9, fig. 10.)

Localities—Yokohama, Asamayama.

Time of appearance—August.

Extremely abundant about Yokohama and everywhere in the plains, but does not go very far up the mountains, where it is replaced by the next species. I have taken the *larva*, and believe it feeds on the bamboo grass.

113. *Lethe diana*, But. (Pl. 9, fig. 12.)

Localities—Ôyama, Yamato, Asamayama, Yezo.

Time of appearance—July, August.

Common in all the mountains. It is probably the mountain form of the last species.

114. *Pronophila schrenkii*, Mén. (Pl. 10, fig. 1.)

Localities—Yezo, Asamayama.

Time of appearance—August.

This fine insect is common in Yezo. Mr. Leech (P.Z.S. 1887, p. 426.) says "it flies in dense under-wood, and is hence rather hard to take."

115. *Neope gaschkevitschii*, Mén. (Pl. 9, fig. 11.)

Localities—Yokohama, Oyama, Yamato, Asamayama, Yezo.

Time of appearance—April, August.

Very abundant about Yokohama, in Yamato, and elsewhere. The specimens from high up Oyama are much darker than those taken about Yokohama.

116. *Neope calipteris*, But. (Pl. 10, fig. 2.)

Localities—Oyama, Yamato, Yezo.

Time of appearance—August.

This is a mountain insect.

117. *Ceenonympha cœdipus*, Fab. (Pl. 10, fig. 3.)

C. annulifer, But.

Locality—Asamayama.

Time of appearance—July, August.

Like the last, a mountain insect.

Family HESPERIDÆ.

118. *Ismene benjamini*, Guér. (Pl. 10, fig. 4.)

I. benjamini, var. *japonica*, Murray.

Localities—Oyama, Nikko, Yamato.

Time of appearance—July; Southern Japan, May (Mr. Leech.)

Common in the above localities.

119. *Pythauria chrysœglia*, But. (Pl. 10, fig. 5A, 5B.)

Localities—Nikko, Asamayama, Yezo.

I have a long series of specimens from Yezo.

120. *Daimio tethys*, Murray. (Pl. 10, fig. 6.)

Pyrgus tethys, Mén.

Localities—Yokohama, Yezo.

Abundant about Yokohama. I have a variety with the white spots in the forewing united, forming a large V-shaped patch.

121. *Pamphila mathias*, Fab. (Pl. 10, fig. 7.)

Locality—Yokohama.

Common about Yokohama; also in Central and Southern Japan (Mr. Leech.)

122. *Pamphila lamprospilus*, Feld. (Pl. 10, fig. 8.)

P. vitrea, Murray.

Isoteinon lamprospilus, Feld.

Locality—Yokohama, Tsuruga (Mr. Leech.)

Common in the vicinity of Yokohama.

123. *Pamphila varia*, Murray. (Pl. 10, fig. 9.)

Localities—Yokohama, Yezo, Nagasaki, &c.

Common about Yokohama. Easily recognized by the dark veins on the underside of the hind-wings (Mr. Leech).

124. *Pamphila guttata*, Brem. and Grey. (Pl. 10, fig. 10.)*Eudamus guttatus*, Brem. and Grey.*Gonoloba guttata*, Mén.

Localities—Yokohama, Yezo.

Common about Yokohama.

125. *Pamphila pellucida*, Murray. (Pl. 10, fig. 11.)

Localities—Yokohama, Asamayama, Yezo.

Time of appearance—August.

Very common about Yokohama.

126. *Pamphila jansonis*, But. (Pl. 10, fig. 12.)

Localities—Ikao.

Very closely allied to *P. pellucida*, the only difference of any importance being a conspicuous pale spot near the base of the hind wing on the underside (Mr. Leech).

127. *Hesperia sylvanus*, Esp. (Pl. 10, fig. 13A, 13B.)

Localities—Asamayama, Nikko, Fujisan, Yezo.

Time of appearance—August.

Mr. Elwes remarks that the forms of this species found in China, Japan, and Amurland are usually larger than the European ones.

128. *Hesperia comma*, Linn. (Pl. 10, fig. 14A, 14B.)

Locality—Asamayama.

Time of appearance—July, August.

129. *Hesperia leonina*, But. (Pl. 10, fig. 15.)

Localities—Nikko, Yezo.

Time of appearance—August.

Not uncommon at Nikko.

130. *Hesperia rikuchina*, But. (Pl. 10, fig. 16A, 16B.)

Localities—Nikko, Yezo, Asamayama.

Time of appearance—August.

Abundant at Nikko.

131. **Hesperia flava, Murray.** (Pl. 10, fig. 17.)

Localities—Yokohama.

Time of appearance—June, August.

Common about Yokohama.

132. **Hesperia, Sp. ?** (Pl. 10, fig. 18.)

Localities—Nikko, Asamayama.

Time of appearance—July.

133. **Cyclopides ornatus, Brem.** (Pl. 10, fig. 19.)

Localities—Oyama, Fujisan, Nikko.

Occurs also in Yezo (Mr. Leech).

134. **Pyrgus inachus, Mén.** (Pl. 10, fig. 20.)

Localities—Nikko, Asamayama.

Time of appearance—August.

Rather scarce at Nikko.

135. **Syrichthus maculatus, Br. and Grey.** (Pl. 10, fig. 21.)

Pyrgus maculatus, Mén.

Localities—Yokohama, Nikko.

Common in Japan and Korea (Mr. Leech).

136. **Syrichthus sinicus.** (Pl. 10, fig. 22.)

Pyrgus sinicus, But.

Locality—Yokohama.

137. **Nisoniades montanus, Brem.** (Pl. 10, fig. 23.)

N. rusticanus, But.

Localities—Yokohama, Yezo.

Food plant—Oak (quercus).

Time of appearance—April.

Abundant about Yokohama in the early spring, feeding on the oak leaf.

COLLECTING.

Since publishing Part I. of this work, I have received suggestions that, as many of my readers have had little practical experience in Entomology, a few directions would be servicable, especially to my Japanese fellow workers.

The apparatus required is as follows :—

- | | |
|-----------------------|--|
| 1. Net. | 10. Setting House. |
| 2. Cyanide Bottle. | 11. Glass Cylinders for rearing Larvæ. |
| 3. Collecting Box. | 12. Cabinets. |
| 4. Larva Box. | 13. Pliers and Dissecting Scissors. |
| 5. Chip Boxes. | 14. The following Chemicals : Potass. Cyanide,
Naphthaline, Acetic Acid dilut., Plumbi
Precip., Calcis Carb. |
| 6. Satchel. | 15. Pins. |
| 7. Lantern. | |
| 8. Tin to hold Sugar. | |
| 9. Glass Tubes. | |

All apparatus used in the field should be as lightly made as possible. Specimens should be removed from the Net by means of the Cyanide Bottle, and when stupified by the fumes, should be pinned through the side in the Collecting Box. The Net should be not less than 2 feet across the mouth, and not too deep. The Umbrella Net is the most handy for use. The Cyanide Bottle should be of strong glass. I find the most servicable to be a smooth glass tumbler, with an India rubber stopper. The Cyanide is powdered and wrapped up in blotting-paper, and over this a piece of stout cardboard is placed. The Collecting Box should be 8 × 10 inches, lined with cork and double-bottomed, and have a strap by which to sling it over the shoulder. The Larva Box should be made of zinc with perforated sides ; this also should have a strap by which it can be slung over the opposite shoulder to that carrying the Collecting Box. The Chip Boxes should be made to fit one within the other, in nests. The Glass Tubes should have cork stoppers and should be from 1 to 1½ inches deep. The Satchel should be made so that it easily opens and shuts, with a flap to prevent the contents being jerked out when running. The Setting House is a very important item, and should contain

not less than 30 feet of setting boards ; it should be very strongly made to withstand rough usage when travelling. The boards should be made of soft wood, with cork or pith in the groove, and when they are put away in the house, they should stand perpendicularly, to prevent the bodies of the specimens becoming distorted, while drying. They should be perfectly flat and all of the same depth, not less than one inch. The cages for rearing *larvæ* should be open Glass Cylinders, the tops being covered with net ; they should stand on earthenware plates, each plate having a hole drilled in the middle, through which the stalk of the plant, on which the larva feeds, is immersed in a vessel holding water underneath. The Cabinet is, perhaps, the most important of all, as, unless it is a good one, the results of the collectors' time and trouble will be spoilt. After very many experiments, I find the best wood for the drawers to be the red wood of the cherry ; any fancy wood not given to warping or giving off resin, may be used for the case, but camphor wood, keyaki, cedar, pine, &c., are most unsuitable. The drawers should be 14 in. long by 21 in. broad, and will then hold one dozen small size sheet-cork, as it is a great advantage to have as many as possible of a genus under observation at the same time. All drawers should have airtight lids, and for butterflies it is useful to have both the tops and bottoms of glass. For the latter, a narrow strip of cork is fastened between thin pieces of wood ; this is laid on the bottom and secured in position by means of a rack arrangement, which permits of the cork being shifted nearer or further apart, as required by the size of the specimens. For moths it is only necessary to have the *lid* of glass, the bottoms of the drawers being lined with cork and papered. The drawers should be of sufficient depth so that the heads of the pins do not touch the glass lid, or say $1\frac{3}{4}$ in. inside measurement. The sides should be double, and the lid have a deep flange fitting accurately into the cavity thus formed. The drawers should be supported on side runners, and all should be made exactly of the same gauge, so as to be interchangeable, if necessary. Only the very best workmanship should be employed, so that neither moisture nor insects can obtain access to the contents. The Pins for all Macro-lepidoptera should be of a uniform length, but of different degrees of thickness. Those for Micro-lepidoptera should be smaller. The Pliers should be turned up at the point and the inner sides provided with a pin and socket. The Scissors should have fine points—they are used for opening the abdomen of all large moths, the contents of which should always be extracted.

Only the best Cyanide should be used ; it is generally in thin cakes, and when its action is sluggish, it can be freshened up by the addition of a few drops of vinegar. Naphthaline placed in a pocket between the double sides of the drawers, is the best protection against the attacks of insects. Plumbi Precip. and Calcis Carb. sprinkled over the bottom of the drawers, although somewhat unsightly, will in damp climates keep away mould and *acari*. If, however, mould appears persistently, the drawers should be placed round a bright fire, some six feet distant, with the lids removed, for several hours, at intervals of a few days. As a substitute for this method, a small quantity of Calcis Chloride, placed in a small pan in each drawer, for a short time, should be sufficient to absorb all moisture. Camphor is worse than useless, as it only damages specimens, instead of acting as a

preservative. To kill specimens, a drop of table vinegar or Acetic acid dilut. (not too strong,) should be taken up on an ordinary pen. The insect is laid on its side, the pen is thrust into the under side of the thorax, and the acid allowed to flow into the wound. No freshly caught specimens, although apparently dead, should be set out, until this is done. In setting insects, I find from experience that what is known as the Continental system is the best; in fact the English system is a decided mistake. The advantages of the Continental system are, that the specimen is set high up the pin, perfectly flat, with the wings well forward. In this position it is easy to figure accurately, there is plenty of room underneath for labels recording references of date, place of capture, &c.; specimens so set are not liable to the attacks of mould and insects, and they can be moved with less risk of breakage. To keep the wings in position while drying, I use narrow silk ribbons, varying in width from $\frac{1}{8}$ to $\frac{1}{2}$ an inch, for the larger specimens, and a long stout horse hair for the smaller; this is pegged down by short stout pins which carry small fragments of cork.

To obtain specimens, the most satisfactory method is to rear them from the larval stage; better specimens are secured, and their life history and affinities can only thus be accurately studied. This method, moreover, will always prove of great interest and give much instruction to the observer.

In searching for *larvæ*, it should be remembered that every part of a plant supports them; some feed on the leaves, others on the stem, bark, flowers, seeds, roots, fungi, lichens (many lichen feeders mimic their food, or pile it on their backs), dead tissue, such as cloth, dried specimens, dead leaves, &c. A great many *Tineæ* pass their whole larval stage between the inner and outer cuticles of leaves. Many *larvæ* can only be obtained at night, by means of the sweeping net, which is strongly made of canvas and swept rapidly backwards and forwards, over low herbage. Beating the overhanging branches of trees into an umbrella, or beating net, is another effective way of obtaining *larvæ*.

Preserving Larvæ.—About twenty years ago, I first published instructions how to preserve *larvæ*, by inflating them over a spirit lamp until dry. This process has since been considerably improved, and with patience and practice, many beautiful specimens may be preserved. Roughly speaking, the process is as follows: the *larva*, which should be kept without food for a day, is immersed in a strong solution of alum water; the inside is pressed out on blotting paper and the empty skin inflated by means of a glass pipette, over a spirit lamp enclosed in a tin box, until perfectly hard. The tin box which encloses the spirit lamp, is open at the front; the flame is kept from scorching the skin by an inner protector of perforated zinc. The pipette must be bent almost at right angles and must have a round bulb in the middle.

Pupa-digging and *raking* should be prosecuted during the autumn and winter, when specimens cannot be obtained in the perfect state. Large isolated trees should be selected and the moss and earth from immediately round the base of the trunk, should be shaken over a sheet of paper.

Many moths mimic the bark of trees, and the trunks should therefore be carefully searched, it being often necessary to blow into the crevices before the insect can be dislodged and seen. An effective way

of dislodging moths from close low herbage, is by means of fumigators, similar to those employed in conservatories.

Light is also a very productive method of obtaining moths. Gas-lamps on the outskirts of towns yield an abundant harvest, and a light ladder should be carried, in order to take off the specimens by means of the Cyanide Bottle. I may mention that it is as well to inform the police what the collector is after, and to carry a box of matches to relight any lamps, that may be accidentally extinguished. A powerful lamp, enclosed in a glass house, elevated in a conspicuous position on a pole, under which is a white cotton cloth, will, on favorable nights, attract a host of specimens, many of which will be found seated on the cloth. There are many forms of moth traps constructed on the principle of eel traps, so that a moth once entering cannot escape; they are baited either with sugar or a light. Many species can usually only be taken at sugar, or the blossoms of certain flowers. Sugar is made by mixing black-sugar with Japanese saké, adding a little rum and beer. This is smeared on the trunks of trees just before dusk; the trees are visited, and the specimens taken off in the Cyanide Bottle, by the aid of the light of a lantern; on favourable nights immense numbers of insects of all orders, visit the sugar, but at other times hardly an insect is to be seen. Pine and cedar trees are generally unproductive. The evening primrose (*Enothera*) is the best flower for hawk-moths, and is in blossom for a long time. The most attractive flower in the spring is the *Stachyurus præcox*, the branches of which should be gently shaken into a large flat umbrella. Ivy blossom should be similarly treated in the autumn. Sallow catkins are the favourite flowers, in the spring, in Great Britain, but are rarely visited by moths in Japan.

An accurate register of all specimens obtained should be carefully kept. This is easily effected by means of numbers. A key or reference number is given to each species, and a subsidiary number to each specimen captured; the first number gives the page of the register, and against the second is written, in the register, a record of the time and place of capture, together with any notes concerning the habits of the insect. I have seen many collections, which have been made with great expenditure of time and trouble, but without a register being kept by the collector, the specimens of which, might, so far as their practical value was concerned, have been so many pieces of painted paper. Mere specimens have no intrinsic value; it is the facts concerning them which are of instruction and value.

NOMENCLATURE.

I have a few remarks to make concerning Nomenclature. In theory a combination of the generic and specific name should denote a particular species, but unfortunately in practice exactly the opposite, in very many instances, is the case. This is owing to the misdirected zeal of "species makers" who multiply genera and species out of all reason. The evil is an ever increasing one, and it is no unusual thing for twenty or more names to be applied to a single species, necessitating the use of formidable lists of

synonyms. Mr. Strickland many years ago attempted to remedy the evil in the Stricklandian Code, approved of by the British Association, but one of the results of his well-meant endeavour, has been the revival of obsolete names, together with those of the long forgotten 'godfather.' The only true test for a name is its general use, and no regard should be given to any sentimental consideration of the so-called 'law of priority' if it interferes with the name known to the 'greatest number.' A greater evil arises from the action of certain learned individuals who, engaged in the Sisyphean labors of 'hair splitting,' obtain single specimens from little known localities, to which they hasten to tag new names, without sufficient investigation or material. This leads me to speculate why people of this class are so exceedingly anxious to 'name new species.' It seems to me they attach some particular honor or self glorification to the performance, as if they thought they were thereby erecting a monument to perpetuate their own puerile work—a strangely false idea!—a name being once established, no further interest is felt in the 'godfather.' I will venture the statement that, 100 years hence, no one will trouble their heads whether 'But.' or 'Tub.' is the abbreviation of the describer's name of any insect from Japan or elsewhere. No doubt the mere museographer is a necessity, as, without his aid, the naturalist's time would be too greatly taken up in the purely mechanical work of classification and description, but that a describer should attempt to arrogate to himself any particular scientific honour is absurd. It is as if the mechanic who makes the brass tube for a telescope, should, in consequence, consider himself equal to the Herschel who uses it.

NOTES BY PUBLISHERS.

A.—An eleventh Plate had evidently been contemplated by the Author, with the view of making the work still more complete, and of embracing two species given in Mr. J. H. Leech's paper—"On the Butterflies of Japan and Corea (Proc. Z.S. I May 3rd, 1887.) But as the delineation of the species had not been completed by the Author, his Executors do not feel justified in producing the intended Plate.

The sketch plan of the intended plate as left by the author is as follows:—

9 *Papilio Memnon*, Linn. male.—Pl. 2, fig. 1 is the female.

9A *Papilio Mikado*, Leech (P.Z.S., 1887, Pl. 35, fig. 1).

Regarding this new species Mr. Leech writes l.c. p. 406:—"I took a specimen about 20th May near Kagoshima, in the province of Satsuma. The nearest allied species is *P. Empylus*."

10 *Luehdorfa puziloi*, Ersch.

Already figured (Pl. 1, fig. 10), but apparently not to the author's satisfaction.

30 *Nephandia fusca*, Brem or Grey. Male.

The female is figured (Pl. 4, fig. 2).

53 *Lycæna argus*, Linn. Violet-colored male.

Three figures have already been given of this species (Pl. 5, figs. 1A, 1B, 1C).

59 *Lycæna iburiensis*, But.

Already figured (Pl. 5, fig. 5).

72 *Neptis lucilla*, Schiff. Southern form.

Northern form figured already (Pl. 6, fig. 5).

95 *Argynnis sagana*, Doubl. Female.

The male is figured Pl. 8, fig. 3.

118A *Plesioneura curvifascia*, Feld.

Mr. Leech writes as follows, P.Z.S. l.c. p. 427:—"This species which is new to Japan, occurs plentifully in a small ravine close to the sea, near the port for Kumamoto in Kiushu. I found the specimens just out in May."

Regarding *Pterygospidea sinica*, Feld., of which Mr. Leech, l.c. p. 428, says there are specimens from Nikko in the British Museum: there is a note in the author's handwriting stating that if the specimens in question are from Mr. Maries, they are probably Chinese, and not Japanese.

B.—Below is given an extract from a letter by Mr. Oliver Janson in reply to the Author's enquiries, which was received by the Executors after his death :—

I received your skippers * * *. The following is a list of them with the corrected names:—

- No. 1 (Pl. 10, fig. 13A.) = *herculea*, But. (male.)
 No. 1 (Pl. 10, fig. 13B.) = *herculea*, But. (female.)
 No. 2 (Pl. 10, fig. 14A.) = *ochrana*, Brem. (male.)
 No. 2 (Pl. 10, fig. 14B.) = *rikuchina*, But. (female.)
 No. 3 (Pl. 10, fig. 16A.) = *florinda*, But. (male.)
 No. 3 (Pl. 10, fig. 16B.) = *florinda*, But. (female.)
 No. 4 (Pl. 10, fig. 18) = *sylvatica*, Brem. (male.)
 No. 4 (Pl. 10, fig. 18) = *sylvatica*, Brem. (female.)
 No. 5 (Pl. 10, fig. 15) = *leonina*, But. (male.)

ERRATA.

PAGE.	LINE.		PAGE.	LINE.	
1	18	For <i>primarily</i> read <i>primarily</i> .	7	3	For <i>Men.</i> read <i>Mén.</i>
3	11	From bottom. For <i>Men.</i> read <i>Mén.</i>	7	15	From bottom. For <i>Spring</i> read <i>Spring</i> ,
—	10	From bottom. For <i>dehaani</i> read <i>dehaanii</i> .	8	16	From bottom. For <i>Men.</i> read <i>Mén.</i>
4	2	For (Pl. 3, fig. 2), read (Pl. 3, fig. 1).	8	14	From bottom. For <i>maresi</i> read <i>mariesi</i> .
4	17	For <i>alicious</i> read <i>alcinous</i> .	8	11	From bottom. For <i>Men.</i> read <i>Mén.</i>
4	17	For (Pl. 3, fig. 8), read (Pl. 3, fig. 3).	9	7	For <i>immortality</i> read <i>immutability</i> .
4	6	From bottom. For <i>fine rapid</i> , read <i>fine, rapid</i> .	9	16	For <i>realy</i> read <i>really</i> .
5	8	For <i>Z.</i> and <i>L.</i> read <i>S.</i> and <i>Z.</i>	10	7	For <i>Men.</i> read <i>Mén.</i>
5	12	For <i>Luedorfa</i> read <i>Luehdorfa</i> .	11	6	For fig. 1. 2. read fig. 1A, 1B.
5	17	For <i>Parnassus</i> read <i>Parnassius</i> .	21	5	For <i>on</i> read <i>in</i> .
6	12	For <i>Men.</i> read <i>Mén.</i>	24	15	After the word <i>year</i> add <i>i.e. 1886</i> .
6	7	From bottom. For <i>Sink</i> read <i>Link</i> .	30	13	Add (Pl. 10, fig. 24).

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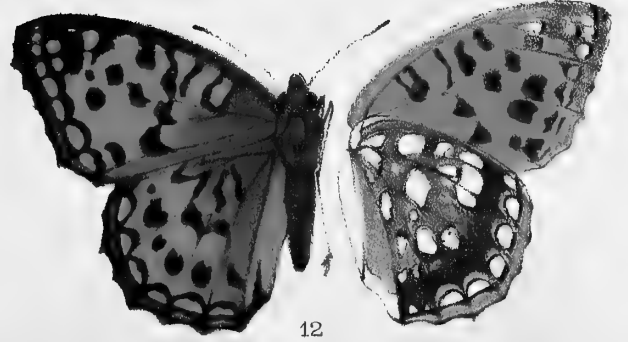
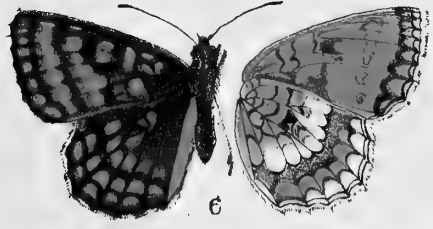
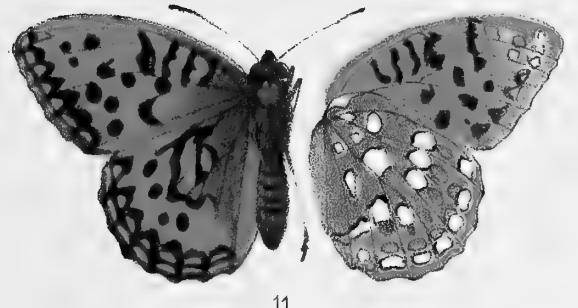
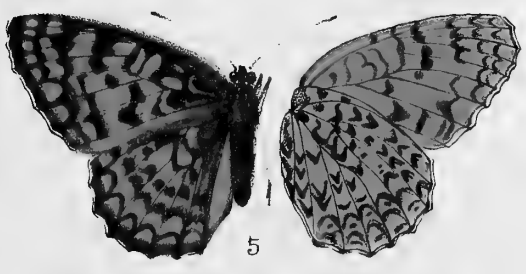
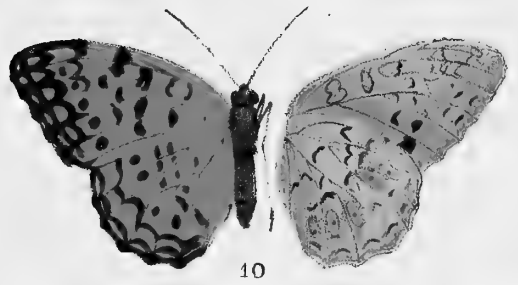
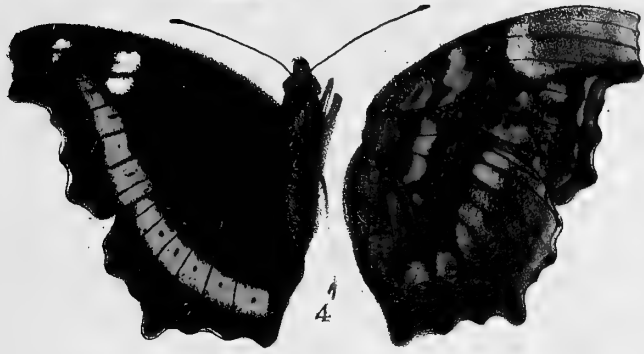
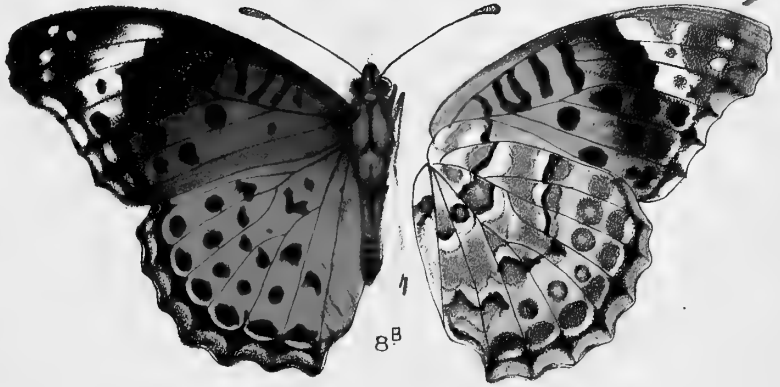
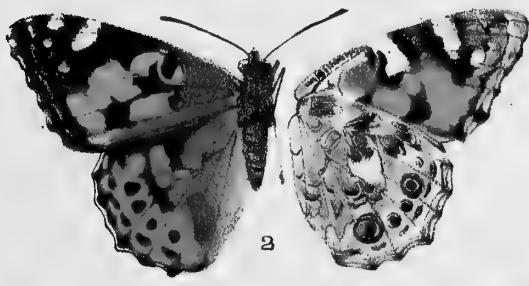
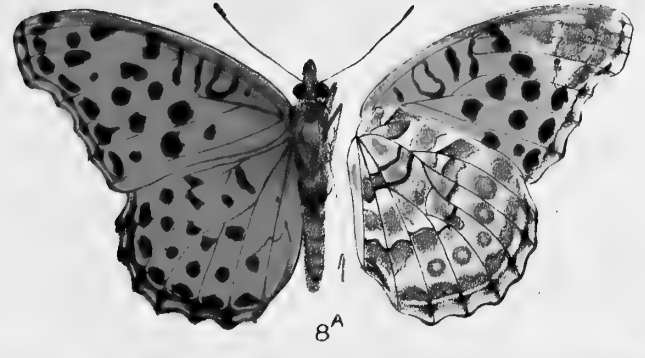
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11	<i>Neope gaschkevitschii</i> , Mén. do.	115	
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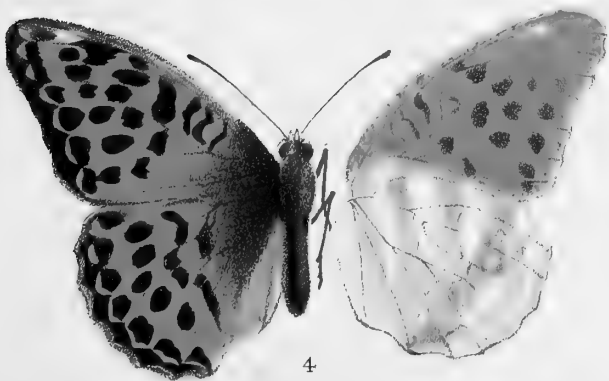
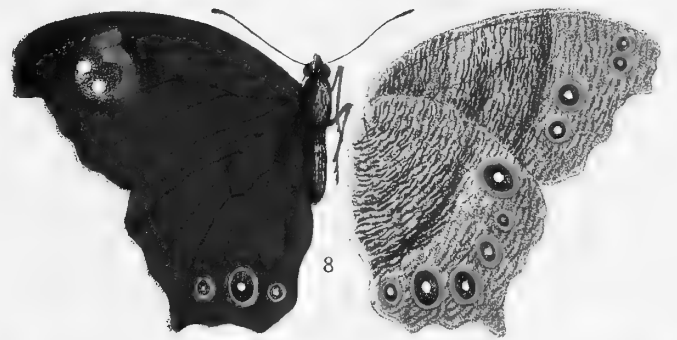
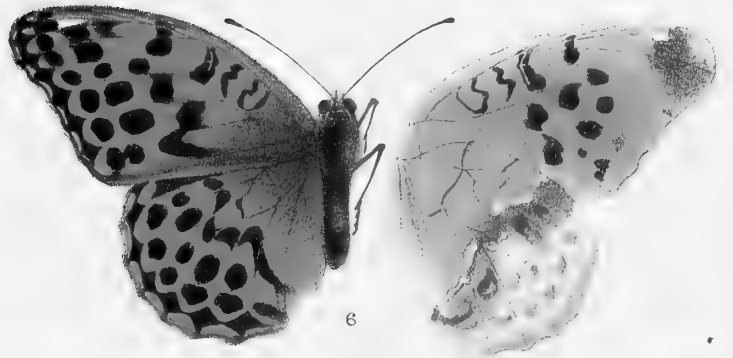
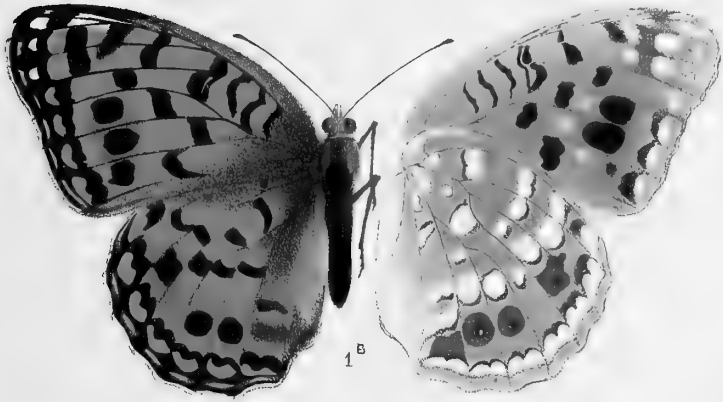
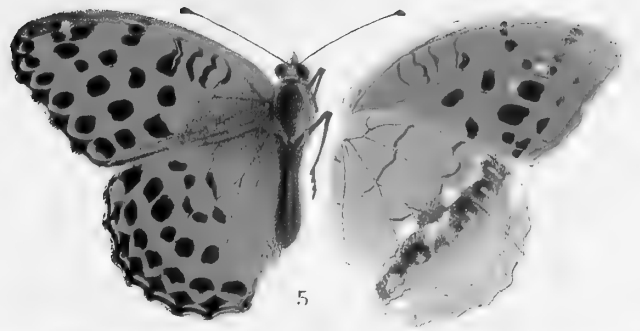
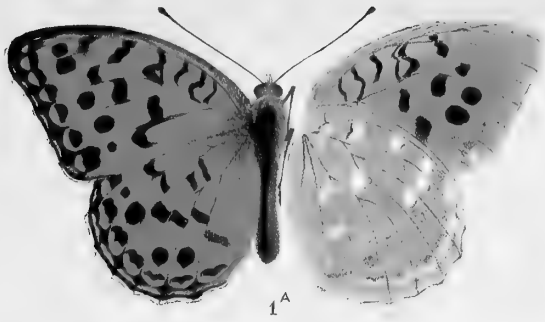
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7	<i>Pamphila mathias</i> , Fab. do.	121	
8	„ <i>lamprospilus</i> , Feld. do.	122	
9	„ <i>varia</i> , Murray do.	123	
10	„ <i>guttata</i> , Brem. do.	34	124
11	„ <i>pellucida</i> , Murray do.	125	
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15	„ <i>leonina</i> , But. do.	129	
16A.	„ <i>rikuchina</i> , But. do.	130	
16B.	„ „ do.	130	
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1



7



2



8



3



9



4^A



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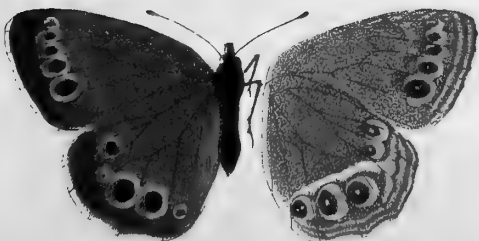
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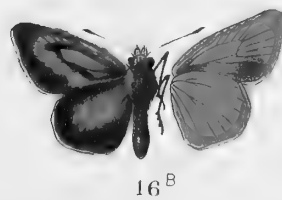
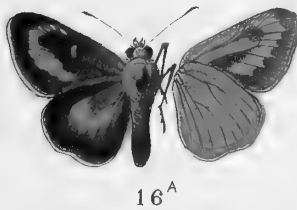
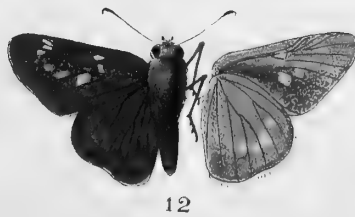
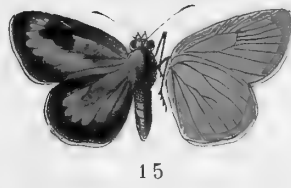
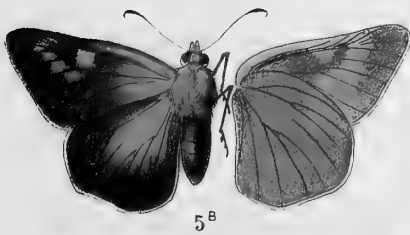
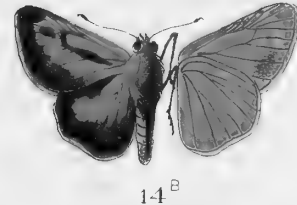
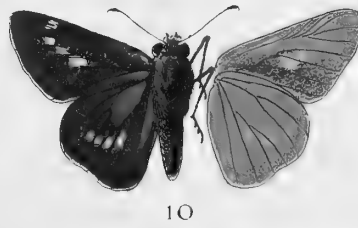
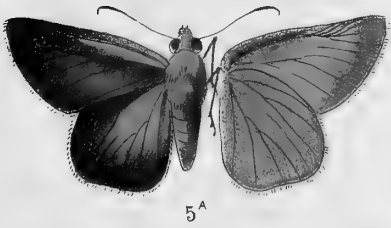
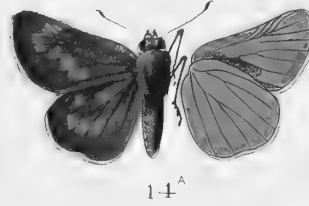
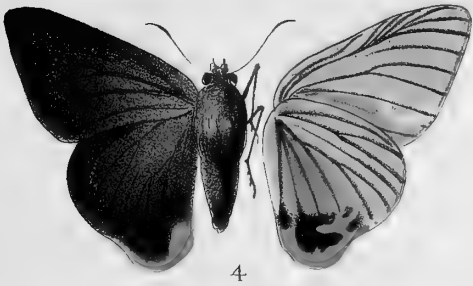
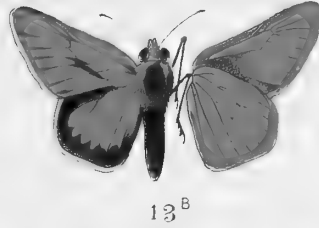
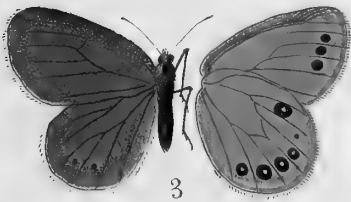
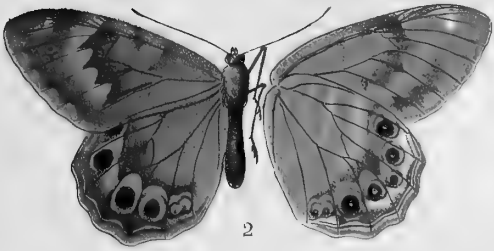
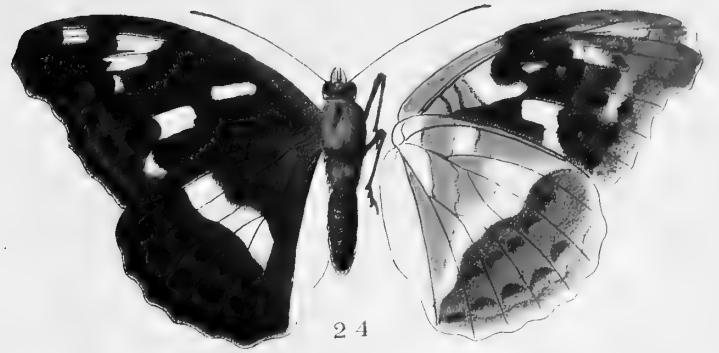
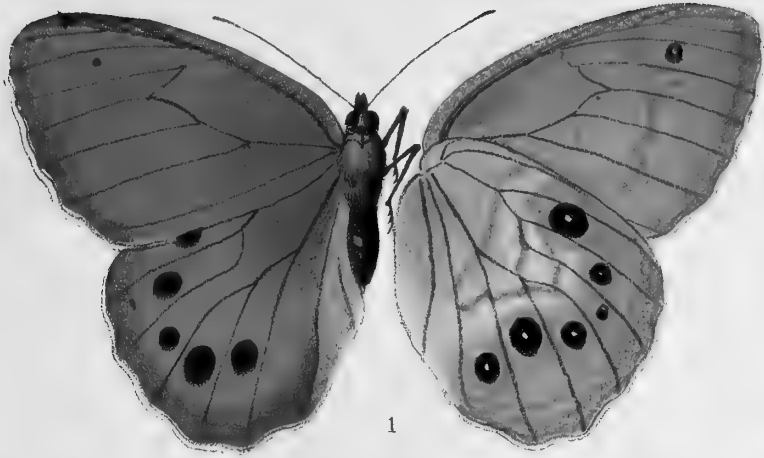
11



6



12



ニ至ル此事ハ余ヲシテ何故ニ此等ノ學者ハ斯ノ如ク新種ニ名稱ヲ附スルコトニ掛念ヲナ
スヤヲ疑ハシム蓋シ彼輩ハ種々ノ榮譽ヲ博センカ爲メ或ハ自己ノ光榮ヲ成就セント欲
スルニアランカ若シ夫ノ兒戲ニ均シキ者ヲ不朽ニ存セン爲メニ碑ヲ建ント欲セハ其誤
見モ亦甚シキ哉一回定メラレタル名稱ハ命名者ニ於テ他ニ何ノ益アラン猶余ハ爰ニ一
言ヲ贅セントス百年ノ後日本或ハ其他ノ一二ノ昆蟲ニ付テ其説明者ノ略稱ノ頭字カ仮
令 But 或ハ Tub ニアルトモ何ノ苦慮スル所アラン蓋シ博物館ノ職員ハ概研究スベキ多ク
ノ時日ヲ全ク分類或ハ解説ノ具ニ機械的ノ業ニ用フルハ是亦不得止ノ事實ナレバ此等
ノ説明者カ種々ノ學問上ノ光榮ヲ我物顔ニ自慢スルハ宛モ望遠鏡ノ眞鍮管ヲ造ル機械
師カ之ヲ使用スルヘルシエル其人ト優劣ヲ争フト一般ナリ

目錄ノ頁ニ與ヘ而テ次ノ番號ハ其頁中ニ記入シ捕獲セシ場所時季並ニ蟲類ノ慣性ニ關スル一二ノ備忘ヲ共ニ記載スヘシ余ハ嘗テ辛苦ト時日ヲ費シ蒐集シタル標品ニ目錄ノナキヲ觀察セリ斯ノ如キハ蒐集者其人ニシテ實驗上ノ價直アルニモセヨ恰モ數多ノ錦繪ヲ有スルト一般ニシテ人ヲ教迪スルノ事實アラサレバ眞ノ價直ナキモノナリ

名稱ノ事

余ハ亦名稱ノ事ニ付キ一言セント欲スルモノアリ抑理論上ニ於テハ屬及種名ノ配合ニ由テ特殊ノ種類ヲ顯ハスト雖實驗上ヨリ觀ルルハ不幸ニモ其相表裏スルノ例尠シトセズ此等ハ何カニ付ケテ屬及種ヲ増加スル造種家ノ熱心ヨリ起因ス此弊ハ常ニ増加シテ一種ニ二十以上ノ異名ヲ附シ爲メニ異名字書ヲ要スルニ至ルストライクラント氏カ數年前「プリチス、アスソシエーション」ノ嘉納シタル「ストライクラント」法ニ於テ此弊ヲ改良セント企圖セラレシヲアルモ其良考ノ結果ハ却テ永ク忘却シタル命名者ノ名ト不用ノ名稱トノ再興ニ過キサリシ夫レ名稱ニ就テ眞ノ要旨ハ其名ノ普ク通用スルニ在リ故ニ其名ニシテ若シ公衆ニ熟知セラル、名稱ト抵觸セハ其所謂「ロー、ラフ、ブライヲリチー」ナル或ル感情ノ尊敬ニ就テ與ヘラレタルニ係ハラサルナリ倍又恰モ毛ヲ裂クカ如キ細微ナル徒勞ノ事業ニノミ心ヲ用フル學者ノ穿鑿ヨリ歴ニ知ラレタル地方ノ單一ノ標品ニ就テ充分ノ試験ヲモ爲サス或ハ材料モナキニ新ニ名稱ヲ附セシヨリ大ナル弊害ヲ起ス

ケ目ヲ屢吹クコトハ最モ緊要ナリ○密生セル雜草ノ中ヨリ蛾類ヲ驅逐スルニ實効アル方
法ハ暖室中ニ於テ施ス如ク燻ラスヲ可トス

燈火モ亦蛾ヲ蒐集スルニ甚收獲アル一法ニシテ街頭ノ瓦斯燈ノ如キハ夥多ナル収納チ
與フルモノナリ故ニ輕便ナル梯ヲ携ヘ直ニ毒壺ヲ以テ蟲ヲ捕フヘシ茲ニ一言スヘキハ
豫メ警察官ニ其旨ヲ通知シ置クト若シ燈火ノ不意ニ消滅スルハ速ニ點スヘキ爲メ木燧
ヲ用意スヘキコト是ナリ○光力强キ燈火ヲ高キ臺ノ上ニ置キ其下ニ白色ノ綿布ヲ敷キ其
夜ニ之ヲ勝地ニ据ヘ蟲類ヲ誘導スルハ其敷物上ニ數多ノ昆蟲ノ佇立スルヲ視察スヘ
キナリ○又蛾ヲ捕フルニ蠟ヲ漁スルニ用フル絲蹄ニ倣ヒ種々ノ絲蹄ヲ造レリ其趣向ハ
蛾ノ一タビ其内ニ入ルモノハ復ヒ出ル能ハサル如クニナシ燈火又ハ砂糖ヲ用ヒテ之ヲ
誘引スルナリ數多ノ蟲類ハ常ニ唯砂糖又ハ花ニ頼テ之ヲ捕獲スルヲ得可シ砂糖ハ黑砂
糖ニ日本酒ヲ混合シ之ニ燒酎或ハ麥酒ヲ少量ニ加合ス而テ黄昏ニ之ヲ樹幹ニ塗布シ夜
ニ入り燈火ヲ提テ之ヲ巡視シ若シ蛾類ノ砂糖ニ集マルヲ認ルハ直ニ毒壺ニ投スヘシ
其夜ニハ各類ノ昆蟲數多砂糖ヲ搜索シ來ルト雖往々一蟲ヲモ得ル能ハサルコトアリ又松
及椏ハ一般ニ收利ナシ待霄草マツヨヒグサハホークモスヲ誘フニ最モ善キ花ニシテ且永ク凋マズ春
候最モ蟲類ヲ誘引スル花ハ旌節花キフツバニシテ其枝梢ヲ靜カニ大ナル傘ノ上ニテ振搖スヘシ
又常春藤キヅダノ花ハ均シク秋季ニ舉用セラルベキナリ

蒐集シタル標品ハ精細ナル目錄ヲ編纂ス可シ此目錄ハ番號ヲ以テ容易ニ編成スルヲ得
ヘシ見出ノ番號ハ各自ノ種名ニ付シ補助ノ番號ハ獲タル標品ニ付ス即チ最初ノ番號ハ

蠅ヲ搜索スルニ方リ植物体ノ各部カ諸蠅ニ適スルヲ記憶セサル可ラス或ハ葉ヲ食ヒ或ハ幹、樹皮、花實、根、茸、苔(苔ヲ食フモノハ概其体色ノ食物ニ類似セルノミナラス苔ヲ其脊部ニ負戴セリ)或ハ枯死セル織緯(衣服ノ如キ)乾燥シタル標品、枯葉、等ヲ食トスルモノアリ數多ノ穀蛾屬ニハ其蠅期中葉ノ表裏ノ膜間ニ經過スルモノアリ又數多ノ蠅ハ特ニ夜中ニノミ掃網ヲ以テ採集スルヲ得ヘシ其掃網ハ綿布ヲ以テ堅固ニ之ヲ製シ雜艸ノ上ヲ前後左右ニ打チ掃フナリ又樹木ノ枝梢ヲ撲チテ蠅ヲ傘ノ中ニ受留ルモ亦實効アル一法ナリ

蠅ノ裝置法 二十年前余初テ蠅ヲ膨脹ノ酒精燈ノ上ニ之ヲ乾燥スルヲ就テ何如ニ之ヲ調製スヘキカヲ指示セシ以來此方法大ニ進歩シ忍耐ト實地トニ據テ此ノ方法ヲ以テ多數ノ佳麗ナル標品ヲ調製スルヲ得ルニ至レリ其概略下ノ如シ先ツ蠅ヲ一日間絶食セシメ而テ濃厚ノ明礬水ニ投シテ後吸墨紙ノ間ニ之ヲ置キ頭部ヨリ漸々ニ之ヲ擱シテ内容ヲ押出シ玻璃ノ吹管ヲ以テ其空皮ノ肛門ニ挿入シ「プリツキ」函ヲ以テ圍繞シタル酒精燈ノ上ニ之ヲ翳シテ乾クマテ之ヲ吹クナリ此酒精燈ヲ覆フ「プリツキ」函ハ唯前面ニ小窓ヲ開キ内部ニ亞鉛ノ柵アルヲ以テ火焰ハ其亞鉛ヲ衝キテ奥ヲ迂回シ此小窓ニ奔出シ以テ蠅ノ空皮ヲ乾燥ス吹管ノ尖端ハ殆ト正角ニ屈折シ而シテ其中央ニ空球ヲ具フ羽化セル標品ヲ獲ル能ハサル季節ニハ蛹ヲ掘リ又ハ之ヲ精密ニ搜索スヘシ○孤立セル大樹ヲ撰ヒ其幹ノ根部ヲ圍繞セル苔及ヒ土塊ヲ敷紙等ノ上ニテ篩フヘシ數多ノ蛾ハ樹皮ニ類似セルヲ以テ樹幹ヲ精細ニ穿鑿スヘシ蟲ヲ退出ス前ニ其樹皮ノ裂

ニ撒布スヘシ外觀稍醜ケレモ梅雨中ハ常ニ黴又ハ乾酪蟲ヲ除去スルヲ得ヘシ然モ若シ
 黴氣ヲ生シタルモハ抽匣ヲ六フイート程隔テ、猛火ノ周圍ニ置キ二三日ノ間數時間ツ
 ツ玻璃蓋ヲ除キ置クヘシ又此法ノ代リニ鹽化石灰ヲ小皿ニ盛リ各抽匣ノ裏ニ暫時間入
 レ置クモハ能ク濕氣ヲ除去スルヲ得ヘシ樟腦ハ防腐ノ効アルモ標品ヲ損傷スルノ虞ア
 ルヲ以テ之ヲ用サザルヲ可トス蟲ヲ殺スニ酢若クハ稀酢酸ヲ通例ノ鐵筆ニテ用フ之ヲ
 施スニハ鍊筆ニ酢ヲ含マセテ蟲ノ胸部ヲ側面ヨリ刺スヘシ然ルモハ其液筆尖ヲ傳フテ
 傷口ニ浸入ス仮令眞ニ死セル者ト雖新鮮ナル者ハ此法ヲ施サスシテ裝置スヘカラス蟲
 ヲ裝置スルニ就テ余ハ經驗上ヨリ大陸法ノ善良ニシテ英國法ノ誤謬アルヲ發見セリ大
 陸法ノ所長ハ蟲ノ位地ヲ高ク裝置シ翅ヲ水平ニナシ前方ニ充分展張ス此位地ニ保ツモ
 ハ之ヲ寫生スルヲ容易ニシテ且其下部ニ年月捕獲地等ノ附箋ヲ帖スル餘地アリ黴又ハ
 蟲ノ害ヲ受ケス又之ヲ移スニ破損ノ危險少シ翅ヲ展張シテ其乾燥スルマテ之ヲ支持ス
 ルニ余ハ大ナル標品ニハ細キ絹布(其幅八分ノ一インチヨリ二分ノ一インチニ至ル)二條
 ヲ用ヒ小ナル標品ニハ馬ノ尾毛ヲ用フ而テ此二條ノ絹布ヲ双翅ノ上ニ置キ通例ノ止針
 ヲコークノ細片ニ通徹シ之ヲ以テ其絹布ヲ刺止ムルモハ絹布ハ細片ノコークニ壓セラ
 レ翅ハ絹布ニ支持セラル、ナリ
 標品ヲ獲ル最便法ハ蠶ヨリ飼養シ之ヲ發育セシムルニアリ畜ニ良品ヲ得ルノミナラス
 其種類ノ慣性及應化ヲ隨意ニ研究スルヲ得且此法ハ常ニ多クノ興味ヲ得又研究者ニ裨
 益ヲ與フルコト多シ

ス且成ル可ク丈一属ノモノヲ一目ニ通覽スルヲ得可ラシム凡テ抽匣ハ空氣ノ侵入セサル蓋ヲナスヘシ而テ蝶類ニハ抽匣ノ蓋モ底板モ玻璃ヲ用ユルヲ必要トス此等ノ抽匣ニハコークノ細片ヲ木ノ薄片間ニ狹ミ平角ノ棒ヲ造リ之ヲ匣底ニ排置ス且豫メ匣ノ内縁ニ此コークヲ入レヘキ方形ノ小孔ヲ穿チテ之ト嵌入ス故ニ此コークハ標品ノ大小ニ由テ或ハ之ヲ接近セシメ或ハ之ヲ隔離ス蛾類ノ抽匣ニハ唯蓋ニ玻璃ヲ用ヒ底板ノ上ニハコークヲ敷キ而テ其上ヲ白紙ニテ帖スヘシ抽匣ノ深サハ針頭ノ玻璃蓋ニ觸レサルヲ適度トス(即チ内法深サ一インチ四分ノ三)縁ハ二重ニ爲シ蓋ニ齒アリテ其溝ニ針入ス抽匣ノ横面ニ凹細溝アリテ外函ノ内側ニアル凸形棧其溝ニ入り以テ之ヲ支持ス各抽匣ノ大サハ同一ニシテ適宜ニ之ヲ上下變換スルヲ得セシム抽匣中ノ蟲其他ニ濕氣ヲ帶ハシムルト否ハ特ニ細工ノ巧拙ニ之レ由ル○止針ハ凡テ大ナル蝶蛾ニハ其長ノ平等ナルヲ要ス然レ其太サニハ自ラ次第差等アリ又細微ノ蝶蛾ニハ細小ノモノヲ用フヘシ○鑷子ハ尖端ヲ稍幅廣ニナシテ前方ニ屈撓セシメ其内側ニ横齒ヲ刻ミ之ヲ合スルハ其齒互ニ相交叉シ以テ針ヲ抜キ刺シスル際之ヲ堅固ニ支持スル用ニ供ス○剪刀ハ大ナル蛾類ノ腹部ヲ切開シ其内容ヲ除去スル時ニ使用スルモノナルヲ以テ最モ尖端ノ精銳ナルモノヲ要ス

藥品類中青酸加里ハ精良ノモノヲ用フヘシ此藥ハ概チ小塊ヲ爲スモノナリ若シ其効能著シカラサルハ酢ヲ二三滴加フヘシ然ルハ新鮮トナスコトヲ得○那布太林ハ抽匣ノ二重縁ノ間ニ撒布シ蠹蟲ノ害ヲ豫防スルニ最モ可ナリ○沈澱鉛及炭酸石灰ハ抽匣ノ底

リ函底ニ刺止ムルナリ○網ハ口經二フイート以上ニシテ淺キヲ可トス笠狀ノ網ハ最モ
 使用ニ便ナリ○毒壺ハ厚キ玻璃ノ平滑ナル水呑ニ抹紙膠イシヤラハノ栓ヲ爲スヲ最モ可トス而テ
 青酸加里ノ細末ヲ吸墨紙ニ包ミ之ヲ水呑ノ底ニ收メ又其上ヲ厚紙ニテ覆フベシ○採集
 函ハ縱八インチ横十インチニシテコークチ布キ雙底蓋モ亦身ノ用ヲナストナス而テ之ニ肩ヨリ帶
 フルニ足ルヘキ紐ヲ附ス○投蠟筒ハ亞鉛ヲ以テ造リ其側面ニ無數ノ孔ヲ穿テ亦紐ヲ附
 シ採集函ト反對ニ之ヲ荷フ○橘捲トモモハ一ヲ他ニ收メイレ套箱ニナル可ク之ヲ造ルヘシ○玻璃
 管ハ一インチ乃至二インチノ長サニシテコークノ栓ヲ具フヘシ○袋ハ開閉ヲ便ニシ口
 金物ヲ附シテ疾走ノ際物品ノ遺脱ヲ防ク○裝置函ハ最モ必要ノ具ニシテ其函中ニハ少
 クモ裝置板三十枚ヲ具フヘシ其函ハ旅行ノ際運搬ニ耐ヘク充分堅固ニ製造スヘシ裝置
 板ハ軟質ノ板ニテ製造シ溝ニハコークモロコシガ或ハ蜀麥莖ヲ布クヘシ而テ乾燥中標品ノ軀幹ニ
 歪斜ヲ生スルヲ防ク爲メニ函中ニ收ムルニハ直線ニ之ヲ立ツヘシ且此板ハ能ク平坦
 ニシテ渾テ全一ノ深サニスベシ但シ一インチヨリ減スベカラス○飼蠟用玻璃製圓壺ハ
 玻璃筒ノ一端ヲ網ニテ包ミ他ノ一端ヲ土製ノ皿上ニ立テ皿ノ中央ニ孔ヲ穿テ蠟ノ食餌
 ニ供スヘキ艸木ヲ其孔ニ挿ミ其下部ニ水鉢ヲ設ケ艸木ノ枯凋ヲ防ク○陳列函ハ頗ル緊
 要ノモノニシテ若シ其標品ニシテ完全ナラサリセハ採集者カ積日ノ苦心モ徒勞ニ屬ス
 ヘシ種々ノ經驗ニ據テ視察セルニ抽匣ニ用ユル板ハ櫻ノ赤身ヲ最モ可トス外函ニハ樹
 脂ヲ生セス屈撓セサルモノヲ可トス樟榛松樅等ノ如キモノハ甚タ不適當ナリトス抽匣
 ハ長サ十四インチ幅廿一インチノ大サニナセハコークノ小板十二枚ヲ敷テ寸隙ヲ餘サ

期節 四月

早春横濱ニ多シ榭葉ヲ食餌トス

採集ノ事

此書ノ初編ヲ刊行セル以來余ハ讀者諸士カ昆蟲學上ニ就キ實地ノ經驗ヲ施セシコト少ナシトノ報告ヲ得タレハ今茲ニ其實驗ヲ爲スニ緊要ナル二三ノ方法ヲ指示スルハ日本ノ學友諸士ノ爲メ敢テ無用ニアラサルヘシト思惟セリ

其所要ノ器具藥品ハ左ノ如シ

- 一 網
- 二 毒壺
- 三 採集函
- 四 投蠅函
- 五 椀マゼン
- 六 袋
- 七 提燈
- 八 砂糖壺
- 九 玻璃管
- 十 裝置函
- 十一 飼蠅用玻璃製圓壺
- 十二 陳列函
- 十三 鑷子及剪刀
- 十四 藥品類 青酸加里、那布太林、稀酢酸、沈澱鉛、炭酸石灰
- 十五 昆蟲針

以上ノ諸器具ハ野外ノ使用ニ供スル者ナルヲ以テ成ル可ク輕便ナランコトヲ要ス先ツ網中ノ動物ヲ毒壺ニ移シ窒塞氣絶セシメテ之ヲ採集函中ニ移シ止針ヲ以テ其體ノ側面ヨ

(三冊一) チクロピテス、ナルナタス、ブレイム (第十版第十九圖)

產地 大山、富士山、日光

北海道 ニモ亦産セリト云フ(リーチ氏)

(四冊一) ビルグス、イナクス、メン (第十版第廿圖)

產地 日光、淺間山

期節 八月

日光 ニ 稍々寡少ナリ

(五冊一) サイリクサス、マクラタス、ブレイム及グレイ (第十版第廿一圖)

ヒルグス、マクラタス、メン

產地 横濱、日光

日本及朝鮮ニ普通ノモノナリト云フ(リーチ氏)

(六冊一) サイリクサス、シニクス (第十版第廿二圖)

ビルグス、シニクス、バツト

產地 横濱

(七冊一) ニソニアデス、モンタナス、ブレイム (第十版第廿三圖)

ニ、ルスチカナス、バツト

產地 横濱、北海道

食草 榊樹

(八廿一) ヘスベリア、コムマ、リン (第十版第十四圖 A B)

產地 淺間山

期節 七月、八月

(九廿一) ヘスベリア、レヲニア、バツト (第十版第十五圖)

產地 日光、北海道

期節 八月

日光ニ 寡シトセス

(〇卅一) ヘスベリア、リクキナ、バツト (第十版第十六圖 A B)

產地 日光、北海道、淺間山

期節 八月

日光ニ 多シ

(一卅一) ヘスベリア、フラバ、モーレー (第十版第十七圖)

產地 横濱

期節 六月、八月

横濱ニ 普通ノモノナリ

(二卅一) ヘスベリア、スブ、(第十版第十八圖)

產地 日光、淺間山

期節 七月

(四七一) パンピラ、グツターター、ブレイム及クレイ (第十版第十圖)

ユダムス、グツターター、イブレイム及クレイ
ゴノロバ、グツターター、メン

產地 横濱、北海道

横濱ニ普通ノモノナリ

(五七二) パンピラ、ベルシダ、モイレー (第十版第十一圖)

產地 横濱、淺間山、北海道

期節 八月

横濱ニ甚タ普通ノモノナリ

(六七三) パンピラ、シヤン、ノニス、バツト (第十版第十二圖)

產地 伊香保

此種ハ「バ、ベルシダ」ニ甚タ相ヒ類似ス唯其最ナル差異ハ后翅ノ裡面ノ翅根ニ近ク明瞭ナ

ル斑點アリト云フ(リーチ氏)

(七七四) ヘスベリア、シルバヌス、エスブ (第十版第十三圖 A B)

產地 淺間山、日光、富士山、北海道

期節 八月

エルウエス氏ハ支那日本及アムアランドニ於テ見出サル、此種ノ形狀ハ歐羅巴産ノモノヨリ常ニ大ナリト云ヘリ

産地 日光、淺間山、北海道

余カ有スル北海道産ノ標本ハ品類頗ル多シ

(○廿一) タイメウ、テチス、モーレー (第十版第六圖)

ヒルグス、テチス、メン

産地 横濱、北海道

横濱ニ多シ余カ有スル變種ハ前翅ニ白點アリ相集合シテV形ノ斑文ヲ呈ス

(一廿一) パンピラ、マシアス、フアブ (第十版第七圖)

産地 横濱

横濱ニ普通ノモノナリ亦日本中央及南方ニ産スト云フ(リーチ氏)

(二廿一) パンピラ、ランブロスピラス、フェルト (第十版第八圖)

パ、ピトレア、モーレー

イツテイノン、ラムブロスピラスフェルト

産地 横濱、敦賀(リーチ氏)

横濱近傍ニ普通ノモノナリ

(三廿一) パンピラ、バリア、モーレー (第十版第九圖)

産地 横濱、北海道、長崎等

横濱ニ普通ノモノナリ后翅ノ裡面ニ黒條アルヲ以テ容易ニ識別セラル、ト云フ(リーチ

氏)

產地 横濱、大山、大和、淺間山、北海道、

期節 四月、八月

横濱、大和其他ニモ頗ル夥シ大山ノ山頂ヨリ獲タル標品ハ横濱ニ於テ採集シタルモノヨ

リモ一層暗色ナリ

(六一一) チヲベ、カリブテリス、バツト (第十版第二圖)

產地 大山、大和、北海道

此蝶ハ山間ニ産スルモノナリ

(七一) セノニムフア、エチパス、フアブ (第十版第三圖)

セ、アンヌリフェル、バツト

產地 淺間山

期節 七月、八月

前種ノ如ク山間ニ産スルモノナリ

(八一) イスメチ、ベンシヤミニー、グエル (第十版第四圖)

イ、ベンシヤミニー、ヴァール、シヤポニカ、モーレー

產地 大山、日光、大和

期節 七月、日本南方五月(リーチ氏)

右ノ地方ニ普通ノモノナリ

(九一一) ビサウリア、グリセクリア、バツト (第十版第五圖A B)

期節 七月、八月

日本ニ於テハ甚々罕ナリ然シエルウエス氏ノ説ニ據レハアムア地方ノ各所ニハ小ナカ
ラスト云フ

(二一一) レセ、シセリス、ヒユ | (第九版第十圖)

產地 横濱、淺間山

期節 八月

横濱ニ頗ル夥ク到ル所ノ平原ニアリ然レ次種ノ如ク山上ニ居ラス余此蠋ヲ獲シニ竹ヲ
以テ食餌トナスヲ認定セリ

(三一) レセ、チアナ、バツト | (第九版第十二圖)

產地 大山、大和、淺間山、北海道

期節 七月、八月

此種ハ諸峯ニ多シ蓋シ前種ノ山上形種ナラン

(四一一) プロノフイラ、シユレンキイ、モン | (第十版第一圖)

產地 北海道、淺間山

期節 八月

此佳麗ナル蝶ハ北海道ニ普通ノモノナリリ | 氏(千八百八十七年刊行動物學協會雜誌
四百廿六葉)曰「此種ハ繁茂セル森林中ニ飛翔スルヲ以テ捕獲ニ稍困難ナリ」ト即是ナリ

(五一) チチベ、ガシユケヒチ | (第九版第十一圖)

横濱ニ頗ル夥ク雜草中ニ飛翔ス

(八〇一) パラীগ、アキチ、スコブ (第九版第六圖)

パ、アキノイデス、バツト

産地 日光、淺間山、北海道

期節 七月八月

六七月ノ候日光ニ夥シ北海道産ノ標品ハ概テ大ニシテ其色モ亦鮮明ナリ

(九〇一) パラীগ、ディダミア、エブ (第九版第七圖)

バ、メニトリエシー、ブレイム

産地 日光、淺間山、北海道、

期節 七月八月

此種ハ日光ニ寡シトセス

(〇一一) パラীগ、マイキー、ブレイム、(第九版第八圖)

ラシチマタ、マアジナリス、モツシユ

産地 大和、北海道、東京(フエントン)

此蝶ハ尋常ノモノニアラズ

(一一一) ラシチマタ、ユピメニダス、メン (第九版第九圖)

チ、チブ、フエントニー、バツト

産地 北海道、淺間山

ス

(五〇一) イブシマ、バルダス、フアブ (第九版第三圖)

イ、アルガス、バツト

産地 横濱、浅間山、北海道

期節 八月

横濱ニ於テ最モ夥多ナル蝶類ノ一ナリ余ハ當地産ニシテ其裡面ノ甚タ黑色ナル標品ニ個ヲ有ス

(六〇一) エレピア、セダコウイ、エブ (第九版第四圖A B)

エ、ニホニカ、ジヤンソン

? エ、スコバリア、バツト

産地 浅間山、日光、北海道

余カ有スル北海道産ノ標品ハ「エ、スコバリア」ナリ然レ余ハ未タ充分ナル數多ノ對照品ヲ見サルヲ以テ之ヲ確定スルヲ難シト雖蓋シ「エ、セダコウイ」ノ産地ニ由リ生セル差異ナラント認メタリ

(七〇一) サチルス、ドライアス、フコブ (第九版第五圖)

サ、バイブクスタータス、モシシユ

産地 横濱、浅間山、北海道

期節 八月

山路ニ生セル杉林ノ間チ飛翔シ居シモノナリ

(一〇一) メラニチス、レダ、リン (第八版第八圖)

產地 土佐、日光(マリーヌ氏)

期節 七月八月

此種モ亦罕品ナリ余ハ四國ノ土佐ト伊豫ノ界ニ於テ唯一匹ヲ捕獲セリ該品ハ莖高キ麻

圃ノ中ニ飛翔セシヲ以テ之ヲ捕フルニ頗ル苦心セリ余ハ唯二匹ヲ視シノミナリシ

(二〇一) メラニチス、スブ?

產地 長崎

余ハ唯一品ヲ織田氏ヨリ得タリ予ノ家兄ハ此種ノタヒチ産ノ「メ、ソランドラ」ニ最モ類似

セルコヲ告知セリ若數多ノ標品ヲ收集スルヲ得ハ其興味果ノ如何ソヤ

(三〇一) ミカレシス、ゴタマ、モ一レ一 (第九版第一圖)

產地 横濱

期節

此種ハ横濱ニ甚タ多ク樹木ノ繁茂セル暗所ニ出沒セリ

(四〇一) ミカレシス、ベルガカス、ヒウ (第九版第二圖)

產地 横濱

期節

此種モ亦多ク其斑文ノ類似セル「ミ、ゴタマ」ト均シキ場所ニ出沒シ二種共ニ同期節ニ現出

(八九) アルジンニス、ルスラナ、モツシユ (第八版第六圖)

ア、リシツペ、ジヤンソン

產地 横濱、日光、北海道

期節 九月

エルウエス氏ノ説ニ據レハ此種ハ「ア、ラチチス、バル」ニ甚々類似スト云リ其狀雜種ノ如ク
見ユレモ余ノ所有スル標品ハ甚些少ナルヲ以テ之ヲ確定スル能ハス

ダナイデー族

(九九) ダナイイス、チチア、グレイ (第八版第九圖)

產地 横濱、富士山、大山、大和、熱海、鹿野山、北海道

期節 五月八月九月

此種ハ横濱近隣ニ稀ナレモ概シテ毎年二三ヲ視ル凡テ山上ニ夥多ナルモノナリ余ハ之ヲ大和ノ大峯山上ニ達スル途次吉野近傍ノ山頂ニ於テ蟲網一揮ノ下ニ五匹ヲ獲シコアリキ

サチリデー族

(〇〇一) メラニチス、イスメチ、モーレー (第八版第七圖)

產地 大和

期節 十月

此種ハ甚々稀品ナリ余ハ大和ニ於テ唯二匹ヲ目撃シ之ヲ捕獲セリ這ハ大臺山ニ通スル

產地 横濱、北海道

期節 七月、八月

此種ハ横濱ニ甚タ普通ノモノナリ

(五九) アルシンニス、サガナ、ダブル (第八版第三圖)

ア、ポリーリナ、ノルドム

產地 横濱、淺間山、北海道

期節 七月

此種ハ横濱ニ多シ雌雄ノ彩色ニ甚タ著シキ差違ヲ呈ス茲ニ圖スル標品ハ雄蝶ナリ

(六九) アルシンニス、パフピア、リン (第八版第四圖)

ア、パフピアイデスハツト

產地 大山、淺間山、鹿野山、富士山、北海道

期節 七月、八月

此蝶ハ山間ニ産スルモノナレモ余ハ嘗テ横濱ニ於テ之ヲ獲タルコアリ

(七九) アルシンニス、ラヲガス、バル (第八版第五圖)

ヴァール、シヤボニカ、メン

產地 横濱、北海道

期節 八月

此種ハ横濱ニ普通ノモノナリ

產地 日光、淺間山、北海道

期節 七月

此種ハ其大サ並ニ彩色ニ著シキ差違アリ日光及北海道ニ多シ

(一九) アルシンニス、アグレイア、リン (第七版第十一圖)

ア、ホルチユナ、ジヤンソン

產地 富士山、北海道

期節 九月

此蝶ハ尋常ノ種類ニアラス

(二九) アルシンニス、アザペー、リン (第七版第十二圖)

ア、パルレスセス、バット

產地 横濱、富士山、大山、淺間山、北海道等

此種ハ到ル所ニ多シ

(三九) アルシンニス、子リツペ、フェルド (第八版第一圖 A B)

產地 大山、淺間山、富士山、鹿野山、北海道、

期節 八月

此種ハ山中ニ甚タ多シ

(四九) アルシンニス、アナガチメチー、フェルド (第八版第二圖)

ア、エラ、ブレーム

(七八) メリチーア、新種？ (第七版第七圖)

產地 淺間山

期節 八月

此種ハ蓋シ「メリチーア、アサリア」ノ特異ノ變形ナラン

エルウエス氏カ論ル如ク「メリチーア」屬ハ非常ニ錯雜セルヲ以テ之ヲ説明スルニハ須ク
數多ノ標品ヲ要スベシ

(八八) アテルラ、フアラランタ、ドリユリー (第七版第十圖)

產地 彼杵ソノギ(長崎ヲ距ル凡三十哩)

期節 十月

茲ニ圖スル標品ハ千八百八十年リヴレンド、ダブリユー、アンドリュウ氏カ採集セシモノ
ニ係ルヘウ、トソン氏ノ目錄ニハカラバル、ナタール、マダガスカル及ノキアンノ標品ヲ記

載シタリ又此種ハ「ロパロセラ、マレイアナ」(第九版第四圖)ニ圖アリ

(九八) アルシンニス、ニフェ、リン (第七版第八圖 A B)

產地 橫濱、長崎、土佐、八丈島

期節 三月ヨリ七月

橫濱近傍ニハ稀ナレモ日本南方ニハ普通ナルモノ、如シ

(〇九) アルシンニス、ダフチ、シッフ (第七版第九圖)

ア、ラ、ア、ガ、ア、ハツト

(四八) ヴァチサ、カロニア、ドリユリー (第七版第四圖)

ヴァール、クラウコニア、モツシユ

産地 横濱北海道

食草 菘蓐サトイモ

期節 八月

此種ハ横濱ニ甚ダ夥ク其大サ並ニ斑文ノ色澤ニ變化アリ

(五八) メリチーア、フヒーベ、シッフ (第七版第五圖)

ヴァール、シビリカ

ヴァール、イーセリア、エウ

メ、スコトシア、パツト

産地 浅間山

期節 七月

大サ並ニ彩色ニ甚シキ差違アリ

(六八) メリチーア、アサリア、ロツト (第七版第六圖)

メ、ニホナ、パツト

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THE BUTTERFLIES OF JAPAN.

NOTICE.

Owing to the lamentable and untimely death of the Author on the 17th February, 1888, the preparation for the press of the unpublished portion of this Work was undertaken by JAMES BISSET, F.L.S., his intimate friend and business associate.

The descriptions from No. 30 (*Niphanta fusca*, Brem. and Gray) to No. 74 (*Vanessa burejana* Brem.) inclusive, were found in type, the final proofs of the greater part having received the Author's approval. The Notes on Collecting and Nomenclature (which will appear in Part III.) were also found in type, ready for printing. The remainder of the text has been completed from the two following sources :

(1.) The Author's own outline of the whole Work, which includes the names, synonyms, localities, food plants, and time of appearance, interspersed with notes.

(2.) The Author's Paper in the Transactions of the Asiatic Society of Japan, "A Catalogue of the Lepidoptera of Japan," read May, 1883.

All the figures down to Plate No. 7, inclusive, were found ready for publication, whilst all the original coloured drawings for Plates Nos. 8, 9, and 10, were in the lithographer's hands under contract for execution as speedily as possible.

Mr. BISSET has to thank Mr. LOOMIS and Mr. MANLEY for the assistance they have kindly afforded him in preparing the work for publication. The Japanese translation is the work of Mr. NAMYE, of the Tôkyô Educational Museum, to whom the Author had entrusted this branch of the Work.

It is believed that the whole Work is as complete as the Author originally intended, although it is feared that some valuable information in the way of additions to and modifications of the Notes to the latter portion of the text may have perished with him.











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