INSECTS COLLECTED ON MOUNT FUJI.

By M. MATSUMURA.

Entomological Laboratory, Agricultural College, Sapporo.

Mt. Fuji as a collecting ground is noted from former days since the French Jesuits, as Abbé David and others trod the unbeaten path of entomological field, somewhat more than thirty years ago.

The time which is yearly allowed the public to ascend the mount, is from the latter part of July to the middle of September, especially for the purpose of religious devotion. Many foreign as well as native entomologists visit it every year. There are many insects which are peculiar to this mountain, and the species which are commonly found here are found to be rarer as we come down toward the foot. *Thecla ibara, T. orsedice, Niphundus fusca, Psychostrophia nelanargia, Schistomira funeralis* (*Bekkochō*), *Carabus fujisanus, Panorpa leucoptera,* etc. are all noted insects here; while many others have a close resemblance to those of Hokkaido.

I visited Mt. Fuji on July 21st and stayed there three days, devoting my time to the collection of insects. To say the truth, it was too early for collecting, and the noted insects known to be found here were not captured in my net, with a few exceptions. During my rambles I found *Tarobo* to be one of the best places for collecting. Here many trees and shrubs flourished, many flowers blossomed constantly and attracted gorgeous papilionids, such as *Papilio demetrius, P. alcinous.* The other common lepidopterous insects found near around here were the diurnals as *Neptis Pryeri, Lycæna Pryeri, Terias læta, Syntomis thelebus, Abraxas eurymedes, Vithora agrionides.* At night many heterocerous insects came to the light. Among them were the following ones: *Chærocampa elphenor, Spilosoma seratopunctata, S. menthastri, Cymatophora* 2 *sp., Icterodes jaguaria, Hypena rhombalis* etc. As I ascended from "Tarobo" about five *cho,* I found that trees and shrubs suddenly gave way to dwarf shrubs and weeds, and next when I came to a place about 4,000 feet high no plants were to be seen except *Ontade—Polygonum polymorphum* var. *japonicum,* and a few shoots of a thistle, *Lenicus* sp. The *Polygonum* were matted here and there on the volcanic ashy soil and a few hypenid moths only flew away as they were disturbed. On ascending still further I came to the region occupied by

reddish volcanic rocks and sands. Here there was no vegetation at all. But still there were found geometrid moths as *Elphos latiferaria*, *Boarmia mœota*, that flew away from about my feet as I trod up the course. Then I came to the place, commonly called *Rokugome*, where large blocks of rocks abounded and where I got *Calosoma mikado* accidently as I overturned a small stone. Here again I caught *Thecla smaragdina*, which I at first regarded as a new species, but on reflection was convinced, must be a variety of the above named species. Just at this time I saw a lycænid butterfly flying about the scattered stones, but the slope being 45° quite prevented me pursuing it. During this time which was spent for the travel from *Rokugome* to the top, where the shrine stands, I could catch no insect, being quite overcome by the very tiresome travel.

After starting from "Tarobo" at 4 o'clock in the morning we reached the top at 2 o'clock in the afternoon. The collection on the top was very poor and only the following insects were netted:—*Argynnis Paphia*, *A. nerippe*, *Pompilus bioculatus*, *Mallophora anicius*, *Endoiasimyia indiana*, *Gn? sp?*, *Musca corvina*, *M. domestica*, *Leucorrhina fujisana*. Among these the most common insect was *Mallophora anicius* (*Shioya-abu*). It was met everywhere we went, being easily discerned by its peculiar buzzing sound. If alights upon a stone awaiting for booty. It the prey comes within its reach, it darts off and clasps it with its feet.

The top of the mount was very cold and after one night's stay we were glad to descend, the more so on account of the scarcity of insects.

On the whole the field which is commonly called *Susono*, containing the large area between Gotenba and "Tarobo," is very rich with the hexapod tribe, especially the moths; but mammals, birds, reptiles, and amphibians seem to be very scarce; no mammals came across my path, and only two kinds of birds fell within my vision. One was a kind of swift called *Cypselus pacificus*, which was to be seen two or three in number on the mountain top, cutting the air with a loud cry; the other was a kind of lark, probably the species called *Alauda japonica* found at a sandy slope about 7,000 feet high.

The following insects were caught on Mount Fuji.

HYMENOPTERA.

Apidæ.

Bombus lapidarius, L. Illig. Mag. V. 169.

Megachile centuncularis, Latr. Hist. Nat.

Vespidæ.

Polistes hebræus, Saus. Mon. Guêpes.

Polistes yokohamæ, Rad. Hor. Soc. Ent. Ross.

Monobia biangulata, Saus. Syn. Am. W.

Crabronidæ.

Cerceris unifaciata, Sm. Cat. Hym.

Ammophila infesta, Sm. J. E. S.

Ammophila sp.

I have never seen this species before. It may be a new species. But as I have not yet been able to identify it I cannot speak with certainty. ♀ Length 28 mm.—general form is much like *A. sabulosa*, but the abdomen is steel blue and the petiole glittering black except the lower part of the 2nd petiolewhich is red.

Ammophila sp.

This is very much like *A. impatiens* of Australia (Tran. Ent. Soc. 1878), except the face not being pubescent with silvery hair, and the first joint of the apical abdomen not being ferrugineous. This is a very common species on the sandy road as is also the former species.

Pompilidæ.

Pompilus bioculatus, Kirby. P. Z. S. 1893.

Scoliadæ.

Scolia quadrifasciata, Fabr. Syst. Piez.

Myrmicidæ.

Leptothorax molesta, Say. Bost. Jour. Nat. Hist.

Lasius fuliginosus, Latr. Hist. Nat. Fourm.

Aphænogaster famelica, Sm. T. E. S. 1874.

Formicidæ.

Polyrhachis sexspinosus, Latr. Hist. Nat. Fourm. 1874.

Polyrhachis lamellidens, Sm. T. E. S.

Camponotus ligniperdus, Latr. var. *obscuripes*, May. B. A. F. A. 1878.

Camponotus vitiosus, Sm. T. E. S. 1874.

Ichneumonidæ.

Anomalon sp.

Campoplex sp.

Tenthredinidæ.

Hylotoma pagana, Danz. Fauna Germ. 1293.

Allantus, n. sp.

This is not described in the "List of Hymenoptera" Vol. 1. of Kirby 1882, nor in any other paper we have yet found. Probably it may be a new species. Length 12 mm.—black with a violetious luster, labrum pale white, middle of antennæ and the basal 3 segments of the abdomen at the venter pale gey; wings fuscous.

COLEOPTERA.

Cicindellidæ.

Cicindella japonica, Guer. Rev. Zoolog. 1847.

Carabidæ.

Calosoma mikado, Bates, Geod. 235.

Staphylinidæ.

Staphylinus paganus, Sharp. T. E. S. 1874.

Lucanidæ.

Macrodorcas rubrofmoratus, Sn. V. Vollh. Tijd. E. 1868.

Scarabidæ.

Bolbocerus nigroplagiatum, Wat. T. E. S. 1875.

Apogonia major, Wat. T. E. S. 1875.

Anomala testaceipes, Mostch. Et. Ent. 1860.
Onthophagus ater, Wat. T. E. S. 1875.

Elateridæ.

Lacon binodulus, Motsch. Et. Ent. 1860.

Telephoridæ.

Macrolycus flavellatus, Motsch. Reise. Amur. 1860.
Luciola vitticollis, Kies. Berl. E. Z. 1874.

Tenebrionidæ.

Plesiophthalmus æneus, Motsch. Et. Ent. 1861.

Mordellidæ.

Mordellistena signatella, Mars. Ann. France. 1876.

Chrysomelidæ.

Melasoma ænea, L. Syst. Nat. 1767.
Sphenoraia melanocephala, Jac. P. Z. S. 1885.

LEPIDOPTERA.

Papilionidæ.

Papilio demetrius, Cram. Pap. Ex.
Papilio alcinous, Klug. Neu. Schmett.

Pieridæ.

Terias læta, Boisd. Sp. Gen.
Colias hyale, L. Syst. Nat.

Lycænidæ.

Niphandus fusca, Butl. P. Z. S. 1881.
Thecla smaragdina, Brem, Lep. Ost-sib.
Polymmatus phlæas, L. Syst. Nat.
Lycæna argiades, Pallas, Reisen.

Lycæna argia, Men. Cat. Mus. Petr.
Lycæna argiolus, L. Syst. Nat.
Lycæna Pryeri, Mur. Ent. Mon. Mag. 1873.

Nymphalidæ.

Apatura ilia, Schiff. S. V. 1776.
Limenitis sibylla, L. Syst. Nat.
Neptis Pryeri, But. T. E. S. 1871.
Neptis aceris, Lepechin, Reise.
Neptis lucilla, Schiff. S. V. 1776.
Vanessa cardui, L. Syst. Nat.
Vanessa c-aureum, L. Syst. Nat.
Argynnis paphia, L. Syst. Nat.
Argynnis nerippe, Feld. Wien. Ent. Mon. 1862.

Satylidæ.

Mycalesis gotama, Moore. Cat. Lep. 1857.
Ypthima baldus, Fabr. Syst. Ent.
Satyrus dryas, Scop. Ent. Carm.
Lethe sicelis, Hew. Ex. Butt.
Neope callipteris, Buth. Ann. & Mag.

Hesperidæ.

Pterygaspidea sinica, Feld. Wien. Ent. Mon. 1862.
Daimio tethys, Men. Enum. 1855.
Isoteinon lamprospilus, Feld. Wien. Ent. Mon. 1862.
Pamphila pellucida, Murrey, Ent. Mon. Mag. 1875.
Pamphila varia, Mur. Ent. Mon. Mag. 1875.
Hesperia sylvanus, L. Syst. Nat.
Hesperia flava, Murrey, Ent. Mon. Mag. 1875.

Sphingidæ.

Hemaris radians, Walk. Cat. Lep. Het. 1856.
Macroglossa bombyliens, Boisd. Sp. Ger. Lep. 1876.
Deilephila Galii, Fabr. Sp. Ins. (Larvæ).

Chœrocampa elphenor, L. Syst. Nat.

Zygœnidæ.

Syntomis thelebus, Fabr. Ent. Syst.

Pryeria sinica, Moor. An. & Mag. 1877.

Arctidæ.

Stigmatophora flava, Brem & Grey. Schmet Nord. China.

Spilosoma seratopunctata, Motsch. Et. Ent. 1860.

Spilosoma menthastri, Fabr. Ent. Syst. 1853.

Bireta pallida, But. A. M. N. H. 1877.

Bombycidæ.

Clisiocampa neustra, L. Syst. Nat. (Egg).

Gastropacha pini, L. Syst. Nat. (Larva).

Numenes disparilis, Staud. Rom. Men.

Liparidæ.

Lymantria aurora, var. *fusca*, Leech. P. Z. S. 1887.

Cymatophoridæ.

Cymatophora sp. (N. sp. ?)

Primaries fuscous, costal margin broadly grey, tinged with a pinkish shade, orbicular grey, outlined in fuscous with a center of the same color; reniform closely in contact with the orbicular, is also grey out-lined in fuscous with a central same colored line and a same colored mark basally; outer side of the reniform is of a white color with a denticulated fuscous line transversely; toward the outer margin there are two black obscure, transverse bands, one of them being bordered with a grey internally; secondaries also fuscous a little deeper toward the outer margin. Wing Exp. 51 mm. Corp. L. 20 mm.

Cymatophora sp. (N. sp. ?)

Primaries long narrow, grey with greenish and reddish shades, mottled with many small reddish brown punctures, double curved bands near the base reddish brown, orbicular absent, reniform black nearly crescent form, costal margin mottled with blackish markings, waveline ("Wellenlinie") black internally

bordered by a brownish green band, with a few violet tinge in a certain light; secondaries greyish, shining.

Wing Exp. 39 mm. Corp. L. 12 mm.

Geometriformidæ.

Catocala sp. (N. sp.?)

Somewhat resembles that of the noctuid moth, *Triphœnopsis lucilla*, Butl. in its general aspect. Wing Exp. 48 mm. Corp L. 22 mm. Reniform white and very large.

Dendrometridæ.

Spilopera debilis, Butl. Typ. Lep. Het. 1878.
Chœrodes dictynna, Butl. Typ. Lep. Het. 1878.
Deroca phasma, Butl. Typ. Lep. Het. 1878.
Boarmia mœota, Butl. T. E. S. 1861.
Elphos latiferaria, Walk. Typ. Lep. Het. 1878.
Abraxas eurymedes, Motsch. Et. Ent.
Vithora agrionides, Butl. Typ. Lep. Het. 1878.
Icterodes jaguaria, Guen. Phal. 1857.
Icterodes fraterna, Butl. Typ. Lep. Het. 1878.
Abraxas languidata, Walk. Cat. Lep. Het. 1862.
Thalassodes ambigna, Butl. Typ. Lep. Het. 1878.

Phytometridæ.

Scotosia certata, Hübner. Pap. Tab.

Pyralidæ.

Marmorinia amphidecta, Butl. Typ. Lep. Het. 1878.
Hypena rhombalis, Guen. Delt. 1854.
Hypena zilla, Butl. Typ. Lep. Het. 1878.
Herminia albomaculatis, Brem. Lep. Ost-sib. 1864.

DIPTERA.

Tipulidæ.

Phachyrhina sp.

Tabanidæ.

Tabanus yokohamæ, Bigot. Mem. Soc. Z. F. 1891.

Tabanus striatus, Fabr. Ent. Syst.

Asilidæ.

Mallophora anicius, Wk. List. Brit. Mus. 1854.

Promachus yezonicus, Bigot. Bull. Ent. Fr. 1887.

Promachus sp.

Dasypogon japonicum, Bigot. Bull. Sec. Ent. 1887.

Laphria auricincta, V. d. Wulp ? Tijd. V. Ent. 1872.

Therevidæ.

Thereva marginula, Meig. Sys. Besch.

Syrphidæ.

Syrphus balteatus, de Geer. Mém. 1780.

Syrphus ribesii, L. Syst. Nat.

Syrphus sp.

Eristalis nemorum, Fabr. Ent. Syst.

Eristalis tenax, L. Syst. Nat.

Endoiasimyia indiana, Bigot. Ann. Soc. Ent. 1874.

Cheilosia sp.

Gn? sp?

I have never seen nor heard of this dipterous insect before, and could not find any allied genus which exactly coincides in its character, neither in Meigen's "Systematische Beschreibung" nor in any other book to which I have access. Form of the antennæ and the thorax is very much like that of the genus *Chrystoxm*, But the venation is quite different, rather resembling that of the genus *Eristalis*, the third longitudinal vein bring curved much. It is the only specimen I have ever caught and so can not be sent away to be identified. I wil[now describe its character briefly.

Corp. L. 16 mm.

Wing Exp. 30 mm.

Antennæ black, antennal peduncle and the vertex purplish, face, collar, isdes of the thorax, scutellum except the dish, 4 curved marks on each side of the

abdomen, and the legs yellow; thorax æneus with 2 longitudinal greenish yellow streaks; abdomen black, apical margin of each segment more or less dull yellow; wings hyaline with a fawn shade especially at the costal margin.

It was caught at the top of the mount about 12,000 feet high where the insect rested upon a reddish volcanic stone, warmed by the vapors that arise from the internal heat.

Muscidæ.

Musca corvina, Fabr. Spec. Insect. 1781.

Musca domestica, L. Faun. Suec. 1833.

Cyrotoneura sp. ?

Sarcophaga sp.

This much resembles the species *S carnaria*, L. but can be easily distinguished by the colors of the venation.

Cynomyia violacea, Macg. Suit. a Bull. 1834.

Echinomyia fera, L. Syst. Nat.

APHANIPTERA.

Pulicidæ.

Pulex irritans, L. Syst. Nat.

RHYNCHOTA.

Pentatomidæ.

Halyomorpha picus, Fabr. Ent. Syst. (Nymph).

Acanthosoma distinctum, Dall. Brit. M. List. 1851.

Coreidæ.

Homœcerus punctipennis, Uhl. Proc. Acad. Ph. 1860.

Lygæidæ.

Pamera hemiptera, Scott. A. & M. 1874.

Cicadidæ.

Pomponia japonensis, Dist. Monog. Orient. Cicad. 1892.

NEUROPTERA.

Panorpidæ.

Panorpa macrogaster, M'Lach. An. Soc. Ent. Belg. 1872.

Leptopanorpa Ritsemæ, M'L. An. Soc. Ent. Belg.

Hemerobidæ.

Chrysopa intima, M'L. A. S. E. Belg.

Osmylus sp.

PSEUDONEUROPTERA.

Libellulidæ.

Diplax elata, Selys. Ann. Soc. Ent. Belg. 1872.

Thecadiphax crotica, Selys. Var. fastigiata, Selys. Ann. Soc. Ent. Belg. 1883.

Leucorrhinia fujisana, sp. nov.

Abd. ♂ 24 mm. ♀ 20 mm., post. wing ♂ ♀ 28—29 mm. Corp. brownish yellow, wings hyaline, costal margin orange yellow, also the menbranule and the basal half of the wing. Pterostigma greyish yellow (length 3 mm.). Reticulations black, but the costal, the basal and the menbranule yellow; anticubital cells 8; post-cubitals 10; the triangles show nothing unusual. This beautiful insect is very common at the top of the mount resting upon the warm heated rocks, but is not to be seen any where as we come down to the level.

Pseudothemis nigrifrons, sp. nov.

Abd. ♂ 35 mm. Post. wing ♂ 39 mm. This much resembles *P. zonata*, Burm., but differs; first, wings are transparent with a purplish luster; secondly, pterostigma large (4 mm. long); thirdly anticubitals 19; postcubitals 13; fourthly head with the face glittering black, the part of the pronotum streaked with a broad yellow band longitudinaly which is divided in the middle by a narrow black line; fifthly, the third and the fourth abdominal segments are not wholly yellow, but interrupted by black lines and marks, the fifth segment also with a yellow mark at the venter; sixthly the superior caudal appendage is yellow except at the base.

Epophthalmia elegans, Hagen. Brauer. Vog. Nov.

Gomphus Pryeri, Selys. Ann. Soc. Ent. Belg. 1883.

Cordulegaster Sieboldii, Selys. Monog. Gomph.
Calopteryx atrata, Selys. Syn. Calopt.
Mnais strigata, Hagen. Syn. Calopt.

November 17th, 1898.

Printed December 29, 1898.