

kum, observed the wind and weather carefully, with reference to the greater or less intensity of the luminosity of the sea, and arrived at the result that only the wind and the strength of the waves exert any appreciable influence upon the manifestation of that beautiful phenomenon. In order that the phenomenon should present itself in all its splendour the wind must have set persistently for some days from the open sea on to the shore. If this condition coincides with a moderate motion of the surface of the sea the visitor to our North-Sea coast, who very often walks in vain upon the strand in the evening, may reckon with certainty upon the wished-for pleasure. In consequence of the sea-wind great numbers of *Noctiluca* collect in the immediate vicinity of the coast, while the animals are carried away from it by a land-wind. That a strong breaking of the waves does not allow the spectacle to attain its full beauty, notwithstanding the greater irritation to which the animals are subjected, is easily explained by the fact that in this case the *Noctiluca* are drawn down too far beneath the surface of the water, seeing that every particle of a wave describes a curve and descends the deeper in proportion to the height of the wave. I have found nothing to support the widely diffused opinion that the phenomenon is manifested especially in close sultry nights. On several evenings the island of Borkum was surrounded on all sides by thunderstorms, but no trace of luminosity was to be seen in the sea, because a land-wind had prevailed for some time. On the other hand, a high electrical tension of the atmosphere coinciding with a sea-wind gave rise to no particular intensity of the phenomenon. This opinion has consequently found acceptance only because on thundery evenings the sea is usually quiet, and thus favours the manifestation of the luminosity.

IV.—*The Staphylinidæ of Japan.*

By Dr. D. SHARP.

[Continued from vol. ii. p. 464.]

Subfam. *STAPHYLININÆ.*

Group *QUEDIINA.*

Algon grandicollis.

Algon grandicollis, Sharp, Trans. Ent. Soc. Lond. 1874, p. 23.

Miyanoshta, in May; Awomori and Hakodate, in September and October.

There is a second, still more remarkable, species of this genus in my collection, the locality being India.

Velleius setosus, n. sp.

Niger; thorace versicolore, elytrorum margine inflexo testaceo; antennis brevibus, intus biramosis, articulo ultimo brevi.

Long. 17 millim.

This differs conspicuously from the other two species of the genus by the shorter antennæ; these organs have long processes on the inner margins of joints four to ten, as in *V. pectinatus*; but unlike that species the terminal joint is short. The erect setæ of the upper surface are more numerous and conspicuous than in the congeners.

Mr. Lewis procured two examples of this insect at Junsai; I believe they are of the male sex, though there is scarcely anything in the abdominal structure to support this view.

Velleius dilatatus.

Staphylinus dilatatus, Fabr. Mant. Ins. i. p. 220.

Mr. Lewis found this insect at Nikko, Sapporo, and Junsai, thus completely removing all doubt of its being truly a Japanese species. The examples are undoubtedly conspecific with those of Europe. The species of this genus were all associated with the larvæ of *Cossus*.

Quedius præditus, n. sp.

Niger; antennarum apice tarsisque rufis; capite thoraceque nitidissimis; elytris scutelloque fortiter profundeque punctatis; abdomine versicolore, minus crebre punctato.

Long. 12 millim.

Antennæ slender, black at the base, red at the extremity.

This is closely allied to *Q. juno*, but in addition to the different coloration of the legs, palpi, and antennæ it has a remarkably deep coarse punctuation on the elytra.

Miyanoshita, in April and May; Junsai. Six specimens.

I have detected no sexual distinctions among the examples of this species and *Q. juno*; all have the front tarsi much dilated.

Quedius juno.

Quedius juno, Sharp, Trans. Ent. Soc. Lond. 1874, p. 24.

Miyanoshita, Hakone, Nikko, Kiga; rare, generally found under dead leaves, where there was fungal growth.

Quedius abnormalis, n. sp.

Picenus; oculis parvis; prothorace suboblongo, elytris longiore.
Long. 15 millim.

Antennæ obscure red, moderately stout, not thicker externally; penultimate joint as long as broad, as long as the terminal joint. Head suboblong, eyes not in the least prominent and occupying less than one third of the length of the sides, the space behind the eyes numerous punctate. Thorax a little rounded at the sides, hind angles distinct though very obtuse, in front on each side of the middle with three fine serial punctures. Scutellum very obsoletely punctate. Elytra deplanate, considerably shorter than the thorax, rather closely and finely punctate. Hind body closely and finely punctate. Legs long.

Found on the borders of the snow at Nikko in June and August; four specimens.

This peculiar insect may be placed in the subgenus *Ediquus*, Rey, as it is related to the European *Q. longicornis*, Kr. I am unacquainted with the male: one of the four individuals before me is considerably smaller than the other three, but does not differ very strongly in any other respect; although it is considerably darker in colour, this is no doubt due to the other examples being somewhat immature.

Quedius flavicornis, n. sp.

Nitidus, niger; elytrorum basi abdominisque segmentis singulis postice rufis; antennis, palpis pedibusque flavis; elytris levigatis, singulo medio obsolete uniseriatim punctato.
Long. 6 millim.

Antennæ short and stout, clear yellow, sixth to tenth joints transverse. Head narrow, scarcely constricted at the neck; eyes small, occupying not one half of the sides. Thorax quite as broad as the elytra, not so long as broad, narrowed in front, very shining, reddish on the front margin, without serial punctures. Elytra longer than the thorax, shining, black, red at the base, and more indistinctly so along the suture, with three or four very fine punctures placed along the sutural depression and with a similar, still more indistinct series along the middle of each. Hind body not closely punctate, each segment broadly cingulate with red. The male has a feeble emargination on the last ventral plate.

Ichiuchi and Hitoyoshi, at the commencement of May; seven individuals.

This very peculiar species has somewhat the aspect of a *Bolitobius*; it lives under bark of beech trees.

Quedius laticollis, n. sp.

Minus depressus, niger; elytris antennisque rufis, pedibus piceis, tarsis rufis; thorace brevi, elytris multo latiore.

Long. 11 millim.

Antennæ short, red, with the basal joints piceous, sixth to tenth joints transverse, terminal joint acuminate. Head orbiculate, with two punctures on the middle of the front margin; eyes small. Thorax much broader than the elytra, nearly twice as broad as long, much rounded at the sides, without serial punctures. Elytra bright red, shining, rather sparingly and finely punctured. Hind body black, rather closely punctured. Male with an emargination of the last ventral plate preceded by a depression of the surface.

Found on an old tree at Sapporo; a single specimen.

This very remarkable *Quedius* may be placed near *Q. brevis* and *Q. ochripennis*, though not at all closely allied to them; the Japanese species of this genus form a series of remarkably distinct forms.

Quedius hirticornis, n. sp.

Piceus; capite thoraceque fere nigris; elytris, pedibus antennisque rufis, his setis exsertis, perelougatis, ornatis.

Long. 13 millim.

Antennæ rather short, loosely articulated, penultimate joints strongly transverse, all the joints furnished with very elongate conspicuous setæ. Head suborbiculate, eyes small. Thorax broad and short, considerably broader than the elytra. Elytra bright red, finely and rather sparingly punctured. Hind body rather closely and finely punctured, more rufescent at the extremity. Legs short, tibiæ stout, very setose.

A single example of this peculiar *Quedius* was found on an old tree at Mitzusawa, 18th October, 1880; it is a female. The species may be placed near *Q. laticollis*, though very peculiar on account of the setæ of its antennæ and legs.

Quedius imbecillis, n. sp.

Nigro-piceus, nitidus; antennis pedibusque rufis, illis brevibus; abdomine elytrisque parce punctatis; capite utrinque post oculos tripunctato.

Long. 8 millim.

Antennæ short, stouter externally, sixth to tenth joints

transverse. Head small, both short and narrow, only about half as broad as the elytra, on each side behind the eye with three very distinct approximate punctures; palpi yellow. Thorax scarcely so long as broad, picuous. Elytra shining, rather sparingly punctured, a little longer than the thorax; scutellum impunctate. Hind body a little versicolorous, the segments more or less red behind, the anal styles and hind part of the terminal segment rather bright red; sparingly punctate.

Miyanoshita, Dec. 22, 1880; one example.

This insect may be placed near *Q. umbrinus*, though very distinct.

Quedius annectens, n. sp.

Niger, nitidus; antennis, palpis, elytris pedibusque rufis, his tibiis fusciscentibus; elytris ad suturam et ad latera nigro-plagiatis, parce fortiter punctatis.

Long. 8 millim.

Antennæ with the penultimate joints about as long as broad. Head with two punctures on a line in the middle between the eyes. Scutellum not punctate. Elytra a little longer than the thorax, black along the suture, but not quite so far as the hind margin, also with a black mark at each side not extending quite to the base; the punctuation consists of a few distant punctures, which are scarcely serially arranged, and at the sides are finer and more numerous and diffuse. Hind body versicolorous, the terminal segments more or less red towards the extremity; rather closely punctate. The male has a slight emargination of the terminal ventral plate, preceded by a depression of the surface.

Miyanoshita; five examples.

Closely allied to *Q. japonicus*, but with the elytra shorter, differently punctate and coloured.

Quedius adustus, n. sp.

Picco-rufus, nitidus; capite nigricante, antennis, palpis, pedibus ab-dominisque segmentorum marginibus rufis; scutello impunctato; elytris abdomineque sat crebre punctatis.

Long. 11 millim.

Antennæ slender, very slightly thicker towards the extremity; penultimate joint rather longer than broad. Head narrow, quite impunctate on the middle. Thorax rounded at the sides and much narrowed in front, on each side of the

middle in front with three large punctures; outside these two other punctures, and still nearer the margin a single puncture. Elytra black, shining, with very definite, not very close punctures, and sparingly pubescent. Hind body rather more sparingly punctate and pubescent. Legs slender, obscure red.

This is nearest to *Q. fulgidus*, but has numerous differences; the antennæ are much more slender, the eyes rather smaller, occupying less than half the length of the sides, the second of the postocular punctures farther from the neck, and the punctuation of the hind body more scanty.

Oyama, Nishi, Nara, Chiuzenji, Nishimura, and Numata; scarce.

Quedius multipunctatus, n. sp.

Niger; capite thoraceque subviridescens; elytris læte viridis; antennis, palpis pedibusque rufo-testaceis.

Long. 9 millim.

Antennæ clear yellow, short, scarcely thicker externally; penultimate joints each almost as long as broad. Head sub-orbicular, but a good deal narrower than the thorax, feebly bi-impressed in front, between the eyes with two transverse series of punctures, and with other punctures between the eyes and behind. Thorax about as long as broad, a little narrowed in front, with two series of six or seven punctures each along the middle, and with numerous punctures outside these. Scutellum impunctate. Elytra rather longer than the thorax, of a shining green colour, rather coarsely punctate. Hind body rather closely punctate, the hind margin of the last segment as well as the anal styles yellow.

Hakone.

The example is a female labelled "under bark, rare." I have seen no other. It is an elegant and very distinct species of the subgenus *Raphirus*.

Quedius brevipennis.

Quedius brevipennis, Fairm. Ann. Soc. Ent. Fr. 1859, p. 41.

Nikko, June 1880; one example.

Q. brevipennis is thought by some entomologists to be a brachypterous variety of the variable *Q. boops*, Grav. The example obtained in Japan has the elytra even shorter than they are in specimens found in the Pyrenees.

Quedionuchus planatus, n. sp.

Subdepressus, niger; elytris rufis; antennis fuscis, harum basi, palpis pedibusque testaceis; clytris subopacis, impunctatis.
Long. 9 millim.

Antennæ short and stout, fifth to tenth joints transverse. Head short and broad, rounded behind the eyes. Thorax about as long as broad, with very feeble opalescent reflexions. Elytra rather longer than the thorax. Hind body moderately closely punctate, the hind margins of the segments ferruginous. Hind femora slender, their spines conspicuous. Male with a very feeble emargination on the last ventral plate.

Nikko, August 12th; four specimens.

Allied to *Q. levigatus*, Gyll., but only half the size.

Quedionuchus concolor, n. sp.

Subdepressus, niger, nitidus; antennis pedibusque piccis, tarsis dilutioribus; thorace opalescente; clytris subopacis, impunctatis; femora posteriora sat gracilia.
Long. 10 millim.

Antennæ a little thicker towards the extremity. Head broad and short, much narrowed behind the eyes. Elytra a little longer than the thorax. Hind body sparingly punctate. Male with a slight emargination of the last ventral plate.

Chiuzenji and Nikko; nine specimens.

This differs from *Q. planatus* in numerous minor points besides the colour.

Quedionuchus armipes, n. sp.

Depressus, niger, nitidus; thorace opalescente; antennis pedibusque rufo-piccis; elytris subopacis, punctis paucis setigeris seriatim dispositis; femora posteriora subtus dilatata longiusque spinulosa.
Long. 9 millim.

Antennæ short, fifth to tenth joints transverse. Head transverse, straight behind the eyes, which are not prominent. Thorax subquadrate, the angles less rounded than in the allied species. Elytra with a few wrinkles, a series of five or six setigerous punctures near the suture, a similar series near the outside, and one or two punctures between the series. Hind body rather broad and flat, moderately closely punctate.

tate, the hind margins of the segments red, terminal segment broadly red behind. Tarsi short.

Shimidzu, Yuyama, Nikko; four specimens.

Although bearing much resemblance to the Austro-Malayan species of *Belonuchus*, this is a true *Quedionuchus*. The remarkable armature of the hind legs is very like that of the Central-American *Q. femoralis*.

I do not see any characters to distinguish the male.

Heterothops rotundiceps, n. sp.

Nigro-piceus, nitidus, antennarum basi dilutiore, pedibus testaceis; capite suborbiculato, oculis magnis; clytris thorace brevioribus. Long. 5 millim.

Antennæ short, not thicker externally, three basal joints piceous, the others dark; fifth to tenth joints differing very little from one another, each nearly quadrate. Eyes very large, extending nearly all the length of the sides. Thorax rather short, not quite so long as broad, a little narrowed in front. Elytra shorter than the thorax, unicolorous, not densely punctate. Hind body moderately closely punctate.

Nikko, Kiga; two specimens.

This little insect has the appearance of a small *Quedius* of the *Raphirus* group, due no doubt to its large convex eyes.

Group STAPHYLININA.

Philonthus addendus, var.

Philonthus addendus, Sharp, Trans. Ent. Soc. Lond. 3rd ser. v. p. 440.

Two examples have been met with at Nikko, one in June 1880 another in July 1881, which do not differ apparently by any good character from European examples, although they do not agree quite satisfactorily therewith in all their details and differ a little from one another. More information must therefore be obtained before we can decide positively about these examples.

Philonthus cyanipennis.

Staphylinus cyanipennis, Fabr. Ent. Syst. i. p. 525.

Common in fungi in Japan. The specimens differ a little from those found in Europe, the thorax being more oblong, with less rounded hind angles.

Philonthus bicaudus, n. sp. (Group 4, Erichson.)

Niger; capite, thorace elytrisq̄ue nigro-subæneis; capite ovato; elytris abdomineq̄ue crebrius punctatis.

Long. 14 millim.

Antennæ rather slender, not thicker externally, tenth joint quite as long as broad. Head narrow, only about half as broad as the elytra. Thorax much narrowed in front; elytra and scutellum closely punctate; hind body rather closely punctate.

Only a single individual has been found—an immature female—but the species is so distinct that it will not be mistaken for any other; it resembles the species of the European *P. politus* group, but has a different structure of the front tarsi; these are (in the female) much dilated, and the apical joint is broad and deplanate and closely spinose beneath; the median lobe of the armature is remarkable on account of being divided into two long slender styles.

Found at Niigata on the 12th September, 1881.

Philonthus liopterus, n. sp. (Group 4, Erichson.)

Latusculus, nitidior, parce punctatus, piceus; capite nigro; antennis pedibusq̄ue rufis.

Long. 9 millim.

Antennæ rather short and stout, but the basal joints rather elongate, the four or five penultimate joints strongly transverse. Head extremely shining, suborbiculate, with only a few coarse punctures. Thorax rather short, subquadrate, straight at the sides, piceous, very shining, the punctures of the dorsal series rather large. Elytra rather longer than the thorax, piceous black, very shining, quite sparingly punctured. Hind body also sparsely punctate, shining. Legs red, tibiæ infuscate; middle coxæ moderately distant. The male front tarsi broadly dilated, apical ventral plate with a broad shallow excision.

A single example of this very distinct species was met with at Junsai, in Yezo.

Philonthus micanticollis, n. sp. (Group 4, Erichson.)

Niger, fusco-pubescens; elytris æneis; thorace sericeo-micante, pedibus testaceis, tibiis infuscatis, antennarum basi palpisque

fusco-testaceis; antennis gracilibus; elytris abdomineque crebrius punctatis.

Long. $7\frac{1}{2}$ millim.

Antennæ slender, not thicker externally, the penultimate joint evidently longer than broad, the basal joint yellowish behind, the terminal joint scarcely paler than those preceding it. Head rather small, almost circular. Thorax not elongate, subquadrate, scarcely perceptibly narrowed in front, the four punctures of the dorsal series moderately large, the surface very shining and in a certain light exhibiting a strong sericeous reflexion. Elytra of a dilute brassy colour, longer than the thorax, rather closely and finely punctate. Hind body densely punctate, with some coarser punctures across the base of the three basal segments. Legs pale yellow, the tibiæ infuscate internally. Middle coxæ moderately distant. Front tarsi of the male distinctly but not greatly dilated; last ventral plate with a small, rather deep excision.

This is not closely allied to any other Japanese species; but I have a very similar one from China. It comes nearer to the description of *P. albilabris* than any other I know.

A single example was found at Nagasaki on the 3rd March, 1881.

Philonthus depressipennis, n. sp. (Group 4, Erichson.)

Depressus, nigricans; elytris æneis; antennis fuscis, basi palpis pedibusque testaceis; capite majore, prothorace posterius angustato, linea marginali antèius valde subtus inflexa; elytris abdomineque parce punctatis.

Long. 7 millim.

Head large, subquadrate, with numerous coarse punctures about the sides, eyes small. Antennæ moderately long, not stout, the penultimate joint not quite so long as broad, the two basal joints yellow. Thorax much narrowed behind. Elytra and scutellum sparingly punctate. Legs yellow, with the tibiæ rather more obscure, the tarsi short, the basal joint of the posterior shorter than the apical; the middle coxæ moderately separated.

Three examples have been found, two at Ichiuchi on the 1st of May and one at Konosè on the 17th of the same month.

This is an abnormal species, with the thoracic lateral line greatly deflexed, so that the longer tactile seta is remote from it. The front tarsi are simple probably in the two sexes, as from a difference in the size of the head I believe I have both before me.

Philonthus discrepens, n. sp. (Group 5, Erichson.)

Sat latus, niger; elytris saturate rufis, pedibus testaceis; antennis fuscis, basi apiceque sordide rufis; elytris abdomineque crebre punctatis.

Long. 8-9 millim.

Antennæ rather slender, dark in the middle, obscurely ferruginous at the extremity and sordid yellow at the base; penultimate joint as long as broad; palpi sordid yellow. Head moderately large, suborbiculate. Thorax shining black, a little narrowed in front. Elytra pale red, not closely punctate, shining. Hind body blackish, with faint metallic reflexions; hind margins of the segments above obscurely, below distinctly red, moderately closely punctate. Legs clear yellow, the coxæ fuscous; the middle pair a little separated.

In the female the front tarsi are a little and in the male a good deal dilated; in the latter sex there is a deep excision on the last ventral plate.

This is a distinct species, having the anterior puncture of the dorsal series more distant from the front margin than usual.

Five examples were found at Nikko, June 1880.

Philonthus erythropus.

Philonthus erythropus, Kr. Wieg. Arch. 1859, i. p. 88.

One example.

Philonthus virgatus, n. sp. (Group 5, Erichson.)

Angustulus, niger, pedibus testaceis; elytris vittis magnis duabus posterius conjunctis, testaceis; antennis fusco-rufis, tenuibus; abdomine densissime subtilissimeque punctato, segmento singulo margine posteriore ferrugineo.

Long. 8 millim.

Antennæ quite slender, the penultimate joints a little shorter, more slender and paler than those in the middle, the tenth evidently longer than broad; palpi pale fuscous. Head rather small, suborbiculate. Thorax shining black, a little narrowed in front, the punctures of the dorsal series rather large. Elytra not longer than the thorax, rather sparingly punctate, the base and outer margin black, the inner portion yellow, but divided by a longitudinal black mark not reaching the hind margin, the extreme edge of the

inflexed side margin yellow; the middle coxæ are nearly contiguous.

This is a very distinct species: five examples have been met with; they all have the front feet moderately dilated, their sex being uncertain; those examined beneath are apparently males, but have no notch on the last ventral plate.

Nikko, Chiuzenji, 22nd August, 1881.

Philonthus angustatus.

Philonthus angustatus, Kr. Wieg. Arch. 1859, i. p. 92.

This is perhaps not sufficiently distinct from *P. thermarum*, Aubé, though Fauvel's statement (Faune G. R. iii. p. 471) that the differences pointed out by Kraatz are absolutely illusory is at least exaggerated; I have not, however, seen sufficient examples to bring me to a positive conclusion on the matter.

Mr. Lewis met with an example at Nagasaki on the 28th May, 1881, and the individual from Northern China mentioned by me in speaking of *P. thermarum* (Trans. Ent. Soc. 1874, p. 44) is also to be referred to *P. angustatus*.

Philonthus sulcifrons, n. sp. (Group 5, Erichson.)

Minutus, niger, nitidulus; antennarum basi pedibusque testaceis; elytris pallidis, basi fuscis; capite oblongo, anterieus impresso profundeque canaliculato; elytris parce punctatis, prothorace paulo longioribus.

Long. 4 millim.

This is the insect alluded to by me (Trans. Ent. Soc. 1874, p. 44) as possibly a variety of *P. thermarum*; but Mr. Lewis has now brought back a small series from which it would appear more probably to be distinct, the remarkable depression and channel on the front of the head being characteristic; it is also of darker colour, rather larger and broader, with stouter, differently coloured antennæ.

I have seen from various sources ten examples, six of which were captured by Mr. Lewis at Nagasaki on the 22nd February, 1881.

Philonthus pygmaeus.

Philonthus pygmaeus, Kr. Wieg. Arch. 1859, i. p. 93.

This is regarded by Fauvel (*l. sup. cit.*) as the same as *P. thermarum*, but appears to me more probably distinct.

Mr. Lewis met with a specimen at Kioto on the 4th July, 1881, differing from a Ceylonese example only in possessing a slight depression on the front of the head.

Philonthus debilis.

Staphylinus debilis, Grav. Col. Micr. p. 35.

Yokohama, Shirvi, Iwaki, Hakodate.

Philonthus nigrutilus.

Staphylinus nigrutilus, Grav. Col. Micr. p. 41.

The Japanese individuals of this widely distributed and variable species are far from agreeing exactly with our European varieties; they are remarkably elongate, with narrow head, slender oblong thorax, which is not narrowed in front, and brassy elytra; amongst the small series before me there are, however, some individuals which indicate that there will prove to be more than one variety or form in Japan.

Nagasaki, Miyanoshita.

Philonthus inconstans, n. sp. (Group 6, Erichson.)

Fuscus, capite nigricante, thoracæ rufo-piceo; antennis testaceis, basi pedibusque flavis; thorace oblongo, seriebus dorsalibus obsolete 5- vel 6-punctatis; elytris hoc fere brevioribus; abdomine crassiusculo, dense subtilissime punctato.

Long. $4\frac{1}{2}$ - $5\frac{1}{2}$ millim.

This species belongs to the subgenus *Rabigus*, Rey, and is allied to the European *P. tenuis*; but it is smaller, of a different colour, and has the antennæ yellow. Unlike the European species, it is extremely variable. Sometimes the thorax and head are of one piceous black colour, sometimes the head is quite black and the thorax bright red, and sometimes the elytra are obscure red; the elytra are sometimes much shorter than the thorax, but in some cases are about equal to them in length; the number of punctures in the dorsal series is apparently as often five as six. The fine pubescence on the hind body is somewhat flavescent in colour. The front tarsi of the male are only moderately dilated, and the last ventral plate has a broad shallow emargination preceded by a triangular membrane.

Found in several localities, but apparently rare. Osaka, Niigata, Yokohama, Oyama, Hakodate, Junsai.

Philonthus cunctator, n. sp. (Group 6, Erichson.)

Angustulus, niger, elytris æneis, antennarum basi apiceque pedibusque testaceis, abdominis segmentorum marginibus posterioribus ferrugineis; capite anguste ovato; elytris abdomineque dense punctatis.

Long. 8 millim.

Antennæ elongate, very slender, fuscous, with the two basal joints and the apical joint yellow; palpi yellow. Head very narrow, only half as broad as the thorax; this latter elongate, narrowed in front, the punctures of the dorsal series rather fine. Elytra closely and finely punctate. Hind body with the hind margins of the segments reddish, those at the base only narrowly so, those at the extremity broadly; terminal styles elongate, their extreme base and the median lobe red. Legs clear yellow, middle coxæ contiguous; male with the anterior tarsi slightly dilated and an extremely slight excision of the last ventral segment.

This species is allied to *P. funarius*, though abundantly distinct by a number of characters.

A single example was met with at Yokohama on the 27th October, 1881.

Philonthus spadiceus, n. sp. (Group 7, Erichson.)

Elongatus, depressus, nigerrimus; antennis palpisque piceis, illis gracilibus, elongatis; elytris abdomineque crebrius punctatis, illis sat nitidis.

Long. 10–11 millim.

Antennæ rather longer than head and thorax, not thicker externally, quite slender, the penultimate joint much longer than broad. Head suboblong, densely punctate at the vertex and the sides of the eyes. Thorax elongate and slender, nearly parallel-sided, with a dorsal series of eight rather large punctures, this series more or less irregular, and frequently with one or two additional punctures intercalated. Elytra quite black, flat, very finely pubescent, finely punctate, a little shining. Hind body densely punctate. Femora picescent; middle coxæ rather narrowly separated; front tarsi of female a little, of male much, dilated; the latter sex with a rather broad, not deep, emargination on the last ventral plate.

This is allied to *P. prolatus*, but is readily distinguished by the longer and more slender antennæ, by the deeper black colour, longer and flatter elytra with less conspicuous pubescence, and by the additional puncture in the thoracic

series, this latter character being, however, not easily observed on account of the great irregularity of the series. The fact that the male tarsi are only about half as broad as they are in *P. prolatus* differentiates the species with certainty.

Rare, Kawasaki near Yokohama, Awomori, and Sapporo.

Philonthus macrocephalus, n. sp. (Group 7, Erichson.)

Depressus, niger; elytris rufis; antennarum apice, palpis, tibiis tarsisque rufescentibus; capite majore, fortiter disperso punctato; prothorace haud elongato, basin versus angustato, seriebus dorsalibus irregularibus circiter 8-punctatis; elytris abdomineque crebre punctatis.

Long. 13 millim.

Antennæ not elongate nor stout, blackish, becoming obscurely red towards the extremity; penultimate joint evidently shorter than broad. Head flat, subquadrate, with numerous coarse distant punctures, but with a broad space along the middle impunctate; underside impunctate. Thorax not so large as the head, anterior angles well marked, the discoidal series consisting of coarse punctures, placed more or less irregularly and varying in number from seven to nine. Elytra, scutellum, and hind body somewhat coarsely and closely punctate.

I am not able to point out any sexual characters; the front tarsi are slightly dilated, no doubt in each sex.

This species has the upper marginal line of the thorax greatly deflexed in front, so that the longer tactile seta is remote from it; this will ultimately require its removal from *Philonthus*. It has the aspect of a *Belonuchus*, but cannot be placed in that genus because of its unarmed femora and (slightly) dilated front feet.

A small series was found at Ichiuchi and Yuyama in May 1881.

Philonthus daimio, n. sp. (Group 8, Erichson.)

Niger; capite thoraceque nigro-subæneis; elytris fusco-æneis, abdomine subversicolore breviter flavo-pubescente; pedibus testaceis, tibiis plus minusve fusciscentibus; capite thoraceque crebris punctatis, hoc area longitudinali lævigata; elytris abdomineque dense punctatis.

Long. 9-11 millim.

Antennæ blackish, slender, each joint longer than broad. Head very numerously punctured, the punctures more scanty towards the middle, where there is a small glabrous space.

Thorax a little narrowed towards the front, with very numerous coarse punctures, leaving an irregular space along the middle smooth. Elytra and hind body closely and rather finely punctate.

Allied to *P. gastralis*, but with numerous differences in colour, punctuation, and size; the female has the front tarsi distinctly dilated, the male I do not know.

Two examples found at Otaru and one at Hakodate.

HESPERUS.

To this genus, recently established by Fauvel, I have to add an elegant Japanese species, as well as *Philonthus tiro*, previously described by me; this latter is rather aberrant, the form being elongate and *Philonthus*-like and the middle coxæ less widely separated.

Hesperus ornatus, n. sp.

Niger; antennarum apice tibiisque rufis; abdomine apicem versus rufescente; elytris rufis, ante apicem nigris, apice ipso albidomarginato.

Long. 11 millim.

Antennæ only moderately long, black, with the three terminal joints white; palpi elongate, piceous. Head shining black, coarsely punctate at the sides, a broad space on the middle smooth. Thorax oblong, shining black, coarsely punctate, with a straight, rather narrow space along the middle smooth. Elytra closely and not quite finely punctate, somewhat shining. Hind body rather sparingly punctate, black, with slight particoloured reflexions, the two terminal segments red. Legs slender, coxæ and femora piceous or nearly black, tibiæ white, fuscenscent at their extremity, tarsi yellowish. The male has a well-marked notch on the last ventral plate, and its front tarsi are a little dilated; in the female these feet are only very slightly dilated.

Rare, Hitoyoshi, Yuyama, and Nikko, in the month of May, under dead leaves with fungal growth.

Actobius inornatus, n. sp.

Angustulus, elongatus, subdepressus, niger; antennis fuscis, basi pedibusque testaceis.

Long. 5 millim.

Antennæ rather slender, but little thickened externally,

the penultimate joints scarcely transverse. Head coarsely and closely punctate, with only a small space on the disk glabrous. Thorax long and narrow, punctured like the head, with a broad, definite, longitudinal space smooth. Elytra elongate and narrow, rather closely and coarsely punctate, black, only the hind margin indefinitely fusco-testaceous.

A single example was found at Yokohama, 7th April, 1880.

Cafius rufescens, n. sp.

Rufo-brunneus; capite thoraceque nigricantibus; antennis rufis, pedibus fusco-testaceis, cinereo-pubescens, opacus; capite thoraceque dense, fortiter profundeque punctatis, linea longitudinali lata, arguta, glabra.

Long. 5 millim.

This species is allied to the European *Philonthus sericeus*, auct., but is distinguished by the colour and other characters apparently subject to but little variation. The head and thorax are much more deeply and coarsely punctate, and the glabrous line on these parts is broader, definite, and more shining, the antennæ are shorter, and the punctuation of the elytra and hind body is not quite so dense and fine. From *P. algarum* it is distinguished by the colour, the much less slender form, and much shorter and thicker antennæ. The male is distinguished by the possession of a setigerous pore on each of the second and third ventral plates and by a large excision of the terminal plate. The setigerous pores do not exist in the corresponding sex of the allied species.

Yokohama, Niigata, Hakodate, under seaweed, probably generally distributed in suitable localities on the coast. I have a specimen from Hong Kong in my collection.

[To be continued.]

V.—*Ophiopteron elegans*, a new, probably Natatory, Form of *Ophiurid*. By Dr. HUBERT LUDWIG*.

AMONG the Holothuriæ which Dr. J. Brock collected during his travels in the Indian Archipelago and entrusted to me to be worked up there was a single example of an Ophiuran

* Translated from the 'Zeitschrift für wissenschaftliche Zoologie,' Bd. xlvii. pp. 459-464 (with a plate).

Helix (Ægista) mitanensis, n. sp.

Locality. Mitan, under Moo-le-it Range, Moulmain (*Ossian Limborg*).

Shell globosely pyramidal, openly umbilicated; sculpture smooth, the shell covered with a thick epidermis, having a finely papillate structure; colour dark olive-green or pale amber; spire conic, high, apex blunt; suture impressed; whorls 6, rather convex and rounded below, the last descending abruptly at the aperture; aperture circular; peristome strong, white, with a sinuate margin above; columellar margin oblique.

Size: maj. diam. 10·9, min. 9·4; alt. axis 6·7, body-whorl 5·2 millim.

Animal with dark tentacles, long and fine; body papillate near the head, pale, dusky on the upper surface; foot short behind and pointed. In some specimens the head and tentacles were jet-black, the rest of the body pale indigo.

XIII.—*The Staphylinidæ of Japan.*

By Dr. D. SHARP.

[Continued from p. 44.]

PHUCOBIUS.

This genus has, by an error of observation of M. Fauvel, been merged in *Cafius*. The ligula is, however, of a different type from that obtaining in *Philonthus* and *Cafius*, and the general structure brings the insect nearer to *Ocypus*; the ligula, though not large, is not at all acuminate at the apex, and its two lobes are evidently separated though not deeply divided. This statement is based on the observation of several examples at different times and of a preparation of the part mounted in Canada balsam. Dr. Horn is more correct in supposing that *Philonthus canescens*, Mann., may be a *Phucobius*; I find, however, although there is a considerable analogy between the two insects in many respects, yet they are far from agreeing in their structure. In the North-American insect the division between the lobes of the ligula is only indistinct, the palpi, mandibles, antennæ, and

legs are much thicker, the middle coxæ more widely distant, the neck much broader and less abrupt, and the details of structure so different that the two have a very different facies. Hence the North-American insect should form a distinct genus and *Phucobius* remains peculiar to Japan and China.

Since the above was written, Casey has published a note on this genus in Bull. Cal. Ac. Sci. i. p. 313, and proposed the genus *Bryonomus* for the North-American species above referred to.

Ocypus nigro-æneus, n. sp.

Elongatus, parallelus, angustulus, niger; capite thoraceque nigro-æneis, nitidis, haud pubescentibus; elytris abdomineque opacis; antennis extrorsum rufis.

Long. 20 millin.

Antennæ short, black at the base, red at the apex, the two or three penultimate joints transverse. Head nearly as broad as the thorax, very densely punctured except along the middle. Thorax about as long as broad, shining brassy black, numerous punctures with punctures of moderate size, and smaller ones intermixed; a well-marked space along the middle smooth; scutellum clothed with black pile. Elytra dull black, scarcely brassy, sculpture indistinct. Hind body not variegate.

This is closely allied to our European *O. fuscatus*, but is larger and has numerous points of distinction.

Subashiri, Nanai; Hakodate, Sept. 1880; eight examples. I have the species also from Olga Bay, on the coast of Korea.

Ocypus Weisei.

Ocypus Weisei, Harold, Deutsche ent. Zeitschr. 1877, p. 344.

This remarkable insect, though very rare, has been found in all the three islands of the group. Shiba at Tokio, Nara near Kiota and Nanai, Hakodate, are localities for it.

Ocypus dorsalis, n. sp.

Niger, opacus, pedibus flavis; abdominis segmentis duobus penultimis aureo-maculatis; antennis basi rufis, medio fuscis, apice albidis; elytris abbreviatis.

Long. 18 millin.

Antennæ rather slender, each joint narrowed at its base,

the penultimate joint scarcely so long as broad, the four terminal joints very pale yellow, almost white. Head broad, quite dull, finely and not densely punctate, and with a rather scanty, fine, dark fuscous pubescence. Thorax longer than broad, the sides slightly sinuate in front, the colour and sculpture like those of the head. Elytra not much more than half as long as the thorax, dull black. Hind body a little enlarged before the apex, dull black, with a very fine pubescence, not visibly sculptured, the penultimate segment and that preceding it each with a large spot of golden pubescence on the middle. Legs bright yellow. Terminal ventral plate of male with a broad, not very deep excision.

We have no species like this in Europe; perhaps *O. ethiops* is the least dissimilar, but, in addition to numerous other distinctions, *O. dorsalis* has a well-marked stigmatic membrane.

This elegant species was found at Niohozan in June, near where snow then remained, and also at Chiuzenji in August.

Ocypus scutiger, n. sp.

Niger, opacus; pedibus antennisque piceis, his extrorsum albidescens; abdomine dilatato, segmentis duobus penultimis aureomaculatis; elytris abbreviatis.

Long. 23 millim.

Although closely allied to *O. dorsalis*, this is no doubt distinct; it is considerably larger and has the hind body broader, the legs and base of the antennæ of darker colour, and the latter organs rather longer, the third joint especially being longer, and the penultimate joint being rather longer than broad.

Only two examples were obtained; Chiuzenji, 20th August, 1881.

Ocypus brevicornis.

Ocypus brevicornis, Weise, Deutsche ent. Zeitschr. 1877, p. 367.

This is found, but not commonly, under the bark of firs, to which habitat it appears to be confined; Miyanoshta, Yunoshiku, Subashiri, Nishi, Oyama.

AGELOSUS, nov. gen.

Ligula lata, longius biloba. Palpi parum elongati, sat robusti, labialium articulo ultimo leviter incrassato, apice truncato. Pro-

thorax lineis lateralibus haud conjunctis. Coxæ intermediæ contiguæ; mesosternum inter eas minus breviter productum, simplex.

This genus, apart from the structure of the side-piece of the prothorax, might be looked on as a close ally of *Ocypus*; but as this part is developed somewhat as in the *Xanthopygini*, it is of considerable interest. The side-piece is large, much inflexed at the base, and both its limiting lines run forward as far as the front angles of the thorax, where, though much approximated, they are still quite separate and, the upper or outer one at any rate, distinct, then being turned upwards to the front face of the thorax, the lower or inner line at once disappears by being carried to the inside of the thorax. In this latter respect the genus differs from the *Xanthopygini*, where the inner line is continued upwards to form the front margin of the thorax, the outer line becoming obsolete at the prominent anterior angle. In the normal *Ocypus*-allies the two lines become so closely approximate that they may be called conjoined at the side of the prosternum.

Agelosus agrees with *Amichrotus* and *Anisolinus* in respect of this character, but it differs from both by numerous points of importance, such as the bilobed ligula, the structure of the palpi, and the mesosternum. The only species of the genus is *Goërius carinatus*, Sharp (Trans. Ent. Soc. Lond. 1874, p. 32).

This species was found in several localities, but only in few examples; these, however, exhibit much variation in the length of the elytra and in the colour of these parts and of the legs and antennæ. The elytra are sometimes nearly as long as the thorax, sometimes much shorter than it, and their colour, as well as that of the legs and femora, being apparently normally red, becomes to a greater or less extent black. There appears, however, only to be one species amongst these variations. The male has a broad shallow excision of the hind margin of the last ventral plate, the front being broadly dilated in each sex.

Kashiwagi, Nikko, Ichiuchi, Miyanoshita, Buno, Iga, Hakone, Sapporo; in one or two examples from each locality.

MIODELUS, nov. gen.

Ligula emarginata, palpi breviusculi sat robusti, mandibulæ breves. Tarsi anteriores sat dilatati; metasternum elytraque brevia; pedes graciles.

This is a curious genus, established for an insect having

somewhat the appearance of *Ocyppus dorsalis* and *O. scutiger*, but very different in many respects. The antennæ are rather slender, of the *Ocyppus* type. The palpi are rather short, and there is no incrassation of the terminal joint either on the maxillary or labial palpi; the second joint of the maxillary is not dilated, and the middle joint of the labial is not longer than the basal and not so long as the apical joint. The thorax is of much more slender form than it is in *Ocyppus*, and is quite differently formed, the sides being deflexed and the side-piece small, not much infolded, and its lower marginal line joining the upper at some little distance behind the coxal articulation, and thus being remote from the lateral tactile setæ. The middle coxæ are contiguous and their apex extends just about to the base of the posterior coxæ. The legs are slender, the basal joint of the hind tarsus much longer than the apical.

These characters bring the genus nearer to *Philetærius* (p. 118) than to any other, and yet the two are very different in appearance; and it appears that whereas the genus just named connects the Eucibdelini with the *Philonthus* group of genera, *Miobdelus* connects the Eucibdelini with *Ocyppus*.

Miobdelus brevipennis, n. sp.

Niger; capite thoraceque subænescentibus, densissime punctatis; antennis articulo ultimo pedibusque extrorsum rufescentibus; elytris thorace multo brevioribus, plaga humerali parum conspicua rufescente, hic inde pubescentia submaculatis; abdomine subdilato. ultra medium macula magna aurata.

Long. 15 millim.

Antennæ slender, each joint narrowed to the base and each longer than broad, the tenth quite distinctly so, the terminal joint red and some of the preceding joints red at the base. Head circular, extremely densely rugose-punctate. Thorax rather slender, transversely very convex, a good deal narrowed behind, very densely rugose-punctate, only an excessively narrow carina along the middle shining. Elytra short, narrow at the shoulders. Hind body black, dull, only obsoletely variegated except for a very large mark of golden pubescence on the antepenultimate segment. Legs slender, femora nearly black, tarsi red, tibiæ intermediate in colour.

The male has not been obtained.

Niohozan, June, Nikko, August; an example from each locality.

ANISOLINUS, nov. gen.

Mandibulæ elongatæ, graciles; palpi tennes, maxillarium articulo secundo valde dilatato, labialium articulo secundo quam basali multo longiore. Prothorax lateribus haud deflexis. Coxæ intermediæ contiguæ. Mesosternum carinatum.

This is another genus of whose exact affinities it is at present impossible to feel very sure; but it appears to connect *Amichrotus* with the *Ocypodes*. It agrees to a considerable extent with *Amichrotus* in the structure of the trophi, the ligula being entire, or, rather, its two lobes small and so compressed together that scarcely any division can be seen between them at the prominent extremity, and the two genera also have in common the unusually great dilatation of the second joint of the maxillary palpi; also in both the lateral lines of the prothorax are not joined. But in the present genus the sides of the prothorax are not deflexed and the superior lateral line thus remains closely approximated to the tactile setæ, the prothoracic structure differing thus apparently but little from that of *Agelosus*. The hind tarsi are elongate, with the basal joint longer than the apical. The two species of the genus are very different from one another in appearance.

It will perhaps be necessary to make a special group for these three genera, to which probably the Central-American *Misanthius* may be found to belong.

Anisolinus picticornis, n. sp.

Elongatus, angustulus, niger; antennis variegatis, articulo ultimo et articulis 4^o-7^m nigricantibus, articulis 8^o-10^m albidis, basi, palpis, pedibus elytrorumque macula humerali rufis; prothorace elongato, nitido, minus crebre punctato; elytris hoc brevioribus.

Long. 16 millim.

Antennæ slender, not at all thickened externally, penultimate joints each much longer than broad. Head circular, very densely punctured at the sides and behind, but with a large irregular space along the middle smooth. Thorax much longer than broad, nearly straight at the sides, though a little narrowed at the deflexed and indistinct anterior angles; the surface is shining, without clothing, sprinkled with rather fine elongate punctures, but with a narrow space along the middle impunctate. The elytra are shorter than the thorax and are dull, without distinct sculpture, and probably bear a black tomentum, under which they are of a somewhat bluish

tinge. The hind body is elongate and *Philonthus*-like, with a somewhat close punctuation and apparently depressed pubescence.

A single female example was found at Miyanoshita in May 1880; it is unfortunately in a decayed condition, so that it will not bear proper cleansing.

Anisolinus elegans, n. sp.

Elongatus, angustulus, opacus, niger; antennarum articulis ultimis quatuor albidis, pedibus, palpis elytrorumque fascia basali rufis, femoribus fuscis; abdominis segmento ultimo fascia basali flava: densissime punctatus.

Long. 12 millim.

Antennæ slender, each joint much longer than broad. Head circular, very densely and somewhat coarsely punctate, with only a small spot on the middle smooth. Thorax elongate, nearly straight-sided, but the sides a little narrowed in a curve to the deflexed and obscure front angles, the surface extremely densely subrugosely punctate, the interstices being indistinct. Elytra about as long as the thorax, with a large red basal band less extended at the suture; very densely, finely, and indistinctly punctate, with extremely fine depressed pubescence. Hind body dull, obsoletely punctured, except at the base of each segment, where the punctuation is definite. The male front tarsi are moderately dilated and the apical ventral plate has a slight apical emargination preceded by a depressed smooth space.

A single example was met with at Miyanoshita in May 1880.

AMICHROTUS, nov. gen.

Mandibulæ elongatæ, graciles; palpi tenues; labiales elongati, articulo secundo quam ultimo vix longiore; ligula parva, integra. Prothorax angulis anterioribus rotundatis. Coxæ intermediæ contiguæ. Mesosternum ante eas longitudinaliter carinatum.

This very distinct genus is allied to the Central-American genus *Misantlius*, but is readily distinguished by the different proportions of the joints of the labial palpi, the middle joint being only about twice as long as the basal and scarcely longer than the terminal joint. The second joint of the maxillary palpi is thickened to a much greater extent than usual; the terminal portion of the mandible remarkably long, slender, and acute. The side-piece of the prothorax is peculiar in its

structure; it is of large size, not much infolded, and its lower marginal line does not join the upper line, but is continued forward till near the front of the prosternum—quite as far as the front of the coxal excision—where it ceases; the long tactile seta is remote from the upper line. The front tarsi are dilated in both sexes, strongly in the male, slightly in the female; the hind feet are very slender and elongate and the basal and apical joints subequal in length.

Amichrotus apicipennis, n. sp.

Subdepressus, niger; antennarum articulis ultimis albidis; elytris ad apicem flavo-marginatis; abdominis apice rufo, tarsis rufescentibus; capite, thorace elytrisque dense punctatis, opacis, abdomine parcius punctato, sat nitido.
Long. 12 millim.

Antennæ rather slender, black, with the three or four terminal joints white. Head suborbiculate, very densely punctate. Thorax punctate like the head, with a very narrow, indistinct, smooth line along the middle. Elytra closely and rather finely punctate, the hind margin very pale yellow, and this part clothed with concolorous pubescence. Hind body rather shining, somewhat sparingly punctate, the three basal segments each with a broad, very deep, arcuate impression near the base; the two terminal segments red. Tibiæ very slender, with only a few distant inconspicuous spinules. The male has a slight broad emargination of the apical ventral plate, and the penultimate segment is furnished in the middle with a patch of dense, elongate, depressed golden pubescence.

This remarkable insect frequents fungi on old standing timber, where it is met with walking about in a threatening attitude, and is associated with an earwig (*Chelisoche Lewisi*, Bormans) which behaves in the same way. It was met with sparingly at various dates and in several localities, from Miyanoshita to Junsai.

HADROPINUS, nov. gen.

Corpus crassum, apterum; elytris metasternoque brevissimis, illis sutura integra; tibiis anterioribus dilatatis.

This insect is to be placed with *Thinopinus* and *Hadrotus*, between which it is intermediate, and, as in them, the lateral lines of the thorax are not joined till the anterior angles are reached. The ligula is rather broad, but its lobes are not divided in the middle. The front tarsi are very broad

in each sex, and the front tibiæ are much dilated and are flattened, so as to present an edge externally; the mesosternum is divided by a curved line, which is armed with numerous long erect setæ; the middle coxæ are distinctly but not widely separated, and the metasternum is so short that they are separated only by a very small space from the hind coxæ. The legs are elongate, the basal joint of the hind feet long, equal to the following three joints together and longer than the terminal joint.

The genus differs from *Thinopinus* by the suture of the wing-cases being straight and from *Hadrotetes* by the more slender limbs and palpi; also by the different form of the front tibiæ, which in *Hadrotetes* are not flattened and are muricate on their posterior aspect.

Hadropinus fossor, n. sp.

Niger; abdomine piceo, elytris externe sordide testaceis; antennis pedibusque testaceis; elytris thorace brevioribus, prope suturam nudis, versus latera pubescentibus.

Long. 23 millim.

Head broad and short, narrowed in front, neck abrupt but thick, impunctate, eyes placed largely on the upper surface. Thorax impunctate, transversely convex, narrowed behind, not so long as broad. Elytra dark sordid yellow externally, near the suture dark, this latter part impunctate and bare, the paler part obscurely punctate and bearing a pallid, depressed, coarse pubescence. Hind body thick, dull, rather coarsely punctate, and with a short, scanty, flavescent pubescence.

Hakodate, three examples. This insect makes burrows in the sand under the seaweed, like *Brosicus* and *Scarites*.

LIUSUS, nov. gen.

Ligula integra, haud lata; prothorax lineis marginalibus usque ad angulos anteriores productis, linea superiore antè obsoleta. Metasternum elongatum.

This insect, though allied in respect of its structural characters to *Hadrotetes*, next which it should be placed, must be treated as a distinct genus; besides differing by the elongate metasternum, it departs too much in the details of its structure to be associated with the North-American *Hadrotetes*. The superior lateral line of the thorax, though quite obsolete in front, is readily traced, and leaves a broad side-piece, the width of which even at the front angles is considerable. The

palpi are less thick than in *Hadrotus*. The front tibiæ are moderately stout and are spinose behind. The mesosternum is not in the middle divided by any carina, but its smooth surface is crossed by some rather short stiff setæ placed in rather large punctures. The only species we have to deal with at present is

Liusus Hilleri.

Hadrotus Hilleri, Weise, Deutsche ent. Zeitschr. 1877, p. 93.

Found by Mr. Lewis at Hakodate. I have the species also from the coast of the Manchurian mainland.

Staphylinus chalcescens, n. sp.

Niger; capite, thorace clytrisque æneis, his cumque abdomine tomento flavescente subvariegatis; capite thoraceque subnitidis, sat fortiter punctatis.

Long. 20 millim.

Antennæ black, the penultimate joints strongly transverse. Head subtriangular, closely and moderately strongly punctured. Thorax subquadrate, with the base rounded, closely and rather coarsely punctured, with a dark fuscous pubescence; a small shining space in front of the scutellum; this latter clothed with black pile. Elytra of a dark brassy colour, not shining, very indistinctly variegated by a fine yellowish indistinct tomentum. Hind body black, with a faint flavescient triangular mark on the middle of each segment and at the side of each segment with an oblong mark of a similar faint kind. Legs black, anterior tarsi pitchy. Male with a very slight emargination of the hind margin of the last ventral plate.

This has a shorter thorax than *S. subæneus*, and the head and thorax are less densely punctate and bear dark pubescence; the antennæ and legs black, and the male characters different.

Nikko, 12th August, 1881; two examples.

Staphylinus vicarius, n. sp.

Niger; antennis extrorsum elytrisque rufis, tibiis testaceis, tarsis piceis, abdominis segmentis duobus ultimis ad basin albido-tomentosis.

Long. 17 millim.

This is of the size and form of *S. stercorarius*, but is not

closely allied to that species or to any other known to me. The three or four basal joints of the antennæ are blackish, the others red, the penultimate joints strongly transverse. The head and thorax are deep black, dull, closely and somewhat coarsely punctate, and bear a black pubescence; a narrow, indistinct, and short smooth line in front of the scutellum. Elytra dark red, about as long as the thorax. Hind body intense black, with a broad pale ashy ring on the base of the terminal segment, a narrower ring on that preceding it, and on the antepenultimate with a few pale hairs extending across the base. Femora blackish, tibiæ yellow marked with fuscous internally. The male has a slight excision of the last ventral plate.

Nikko, 16th August, 1881, two examples; Awomori, one example.

Staphylinus daimio, n. sp.

Niger; elytris, pedibus antennisque rufis, his medio nigricantibus, capite anterieus, collo, scutello, abdominis segmentis basali et tribus ultimis utrinque flavo-pubescentibus.

Long. 23 millim.

This is very closely allied to the European *S. erythropterus*, but differs as follows:—The stature is considerably larger, the antennæ are larger, with notably longer third joint, the thorax is broader, and the basal abdominal segment is spotted with yellow on each side. Thus, close as this species is to the European *S. cesareus* and *erythropterus*, it differs decidedly from either. The three individuals found are females.

Junsai and Sapporo.

PHILETÆRIUS, nov. gen.

Ligula biloba; palpi subrobusti; mandibulæ breves; prothorace transversim valde convexo, lateribus deflexis; coxæ intermediæ parum distantes; mesosternum haud transversim carinatum. Pedes graciles, tibiis pubescentibus haud spinulosis, anterioribus subincrassatis, haud deplanatis; tarsi anteriores in utroque sexu dilatati.

This is an interesting genus, intermediate between the *Philonthus* and the *Eucibdelus* groups of genera, and to be placed at the commencement of this latter group. The two lobes of the ligula are much compressed, so that the division between them is not very conspicuous, and in the structure of

this part it is intermediate between *Philonthus* and *Eucibdelus*. The maxillary palpi are stouter than those of *Philonthus*, but the proportions of their joints are similar, and, like all the other parts of the trophi, they are rather short; the second joint of the labial palpi is scarcely longer than the basal joint and shorter than the terminal joint. The labrum is divided to the base and its two lobes are larger than in *Philonthus*, though similarly formed. The head is short and has a neck about half its width. The thorax has the sides extremely deflexed, the marginal line not visible from above; it has no tubercular prominences near the front angles and its side-pieces are not inflexed. The legs are rather slender, the tibial spurs elongate, the claws small, the front feet in the female, as well as in the male, moderately dilated. The metasternum short.

Philetærius elegans, n. sp.

Niger; elytris abdomineque opacis, pube griseo-submaculata vestitis: capite thoraceque nitidulis, parce obsoleteque punctatis, parceque pubescentibus; antennis pedibusque sordide rufis, his femoribus, illis articulo basali fuscis.

Long. 13 millim.

Antennæ rather short, not stout, simple, not at all serrate, penultimate joint not quite so long as broad. Head rather short and broad, with rounded hind angles; eyes rather large, extending rather more than half the length of the sides; it has some faint blue or green reflexions, and the fine distant punctures are evenly distributed over its surface, a fine hair rising from each. Thorax slender, narrowed behind. Elytra short, not longer than the thorax, indistinctly densely punctate, tomentose, of a blackish or fuscous colour, with indistinct spots of a grisescent or a very pallid yellow colour. Hind body tomentose like the elytra, but the pallid pubescence scanty and not forming definite spots.

This species was found in the nests of a black ant (having the habits of *Formica fuliginosa*) at Bukenji on the 1st and 13th of April, 1884, four examples being captured. The sexual differences are small, consisting only of a feeble emargination of the last ventral plate in the male.

PHYTOLINUS, nov. gen.

Caput subquadratum; labrum permagnum, fissum; antennæ ad apicem subserrate; palpi subrobusti, ligula fissa. Tibiæ ante-

riores dilatatae, teretes, tarsi anteriores latissime dilatati, laxi, articulo ultimo brevi, haud exserto.

This is another form of that interesting group of Staphylinini * of which *Eucibdelus* may be taken as the type, from all of which it is distinguished by the peculiar structure of the tarsi. Those of the front feet are very broad and somewhat asymmetrical, the outside lobe being differently shaped from the inner; the basal joint very short and very strongly transverse, the fourth joint large and dilated, the fifth short and broad, only its claws extending beyond the fourth joint, these abruptly curved to underneath the foot; on the middle and hinder legs the fourth joint is provided with slender elongate lobes, the claws of the elongate terminal joint large. The head is rather short and broad, as in *Trichocosmetes* and *Phileterius*, the thorax is without tubercular anterior prominences; both these parts are destitute of tomentum. The other characters appear to be much the same as in *Eucibdelus*.

* The following characters are those of the most remarkable genus of this group yet brought to our knowledge:—

RHYNCHOCHEILUS, nov. gen.

Corpus elongatum, gracile, tomentosum. Labrum omnium maximum, capite paulo brevius, anterius acuminatum et deflexum, usque ad basium fissum, lobi singuli marginibus hirsutis. Palpi maxillares subrobusti, articulo ultimo quam precedente brevior; palpi labiales crassi, articulo secundo apicem versus incrassato, articulo ultimo parvo crasso. Caput elongatum, oculis convexis. Prothorax absque prominentia, angulis anterioribus rotundatis, omnium maxime deflexis. Tibiæ pubescentes, espinulosæ, anteriores dilatatae, teretes; tarsi anteriores in utroque sexu dilatati.

Rhynchocheilus pectoralis, n. sp.

Niger; antennarum basi pedibusque testaceis; elytris fulvis; capite thoraceque dense subtiliter punctatis, flavo-tomentosis, illo anterius bi-impreso; elytris elongatis, dense subtiliusque subrugose punctatis, tomento sparsio irregulariter, quasi maculatim, vestitis; abdomine elongato, angusto, tomento pallide flavo vestito, segmentis basalibus singulo in medio ad apicem convexo, ibidemque nudo, nitido.

Long. 23 millim.

Mas segmento ultimo ventrali ad apicem profunde exciso.

Hab. Malacca, Castelnau.

The enormous labrum is interesting when we bear in mind the similar increase in this organ in some of the wonderful Cicindelidæ found in the same region. Like them this insect is no doubt arboreal and predaceous in its habits; the slender hind tarsi are densely pubescent beneath and their angles sufficiently prolonged to be called sublobate. Wallace found a second smaller species in Malacca, I believe at Mount Ophir.

This genus is an example in the Staphylinidæ of the reproduction of some of the characters of species with tarsi like *Phytophaga*, and we may assume that its habits are arboreal.

Phytolinus Lewisii, n. sp.

Niger: antennis pedibusque flavis, illis articulis ultimis nigricantibus; elytris elongatis, disco late flavescente; abdomine nitido, transversim albedo-sericante.

Long. 17 millim.

Head black, finely punctate, the punctuation in front very dense, on the vertex more sparing and coarser, and therefore this part is shining. Thorax slender, not elongate, extremely convex transversely, shining black, closely and rather finely punctate, the surface rather uneven, and with a very indistinct, narrow, smooth line along the middle. Scutellum large, densely and extremely finely punctate. Elytra black at the base and hind angles, with a large tawny band dilated near the suture across the middle, the inflexed sides also tawny, the median band variegated with rather scanty white and flavescens pubescence. Hind body rather slender, shining black, scarcely punctate, variegated with scanty shining white pubescence placed transversely. Legs clear pale yellow, the coxæ fuscous, and the base of the front femora of the same colour.

I am not able to point out any sexual characters; in one of the specimens there are two, in the other two specimens three, joints of the antennæ dark, and there is also an apparently variable transverse impression on the middle of the head between the eyes.

Kashiwagi, June; Nikko, August. Beaten off foliage.

[To be continued.]

XIV.—*Descriptions of twenty-four new Species of Butterflies captured by Mr. Last in the neighbourhood of Mombasa, East Coast of Africa, in the Collection of Mr. H. Grose Smith.* By H. GROSE SMITH.

Papilio polistratus.

Male.—*Upperside.* Both wings dark brown with green spots and markings. Anterior wings with spots as in *poli-cenes*, Cram., but the markings across the cell more linear

*Cymothoë seneca.*Exp. $2\frac{3}{4}$ in.

Male dark brown, crossed by a moderately broad common white band running from the middle of the costa on the anterior wings, where it is narrowest, to the anal angle of the posterior wings; this is followed by a double row of white spots, the innermost largest and sagittate; the outermost row commences on the anterior wings rather above the middle, but there is a larger white spot above it nearer the base and out of the series. Underside varied with white and grey, with numerous zigzag and annular markings near the base, and with an oblique common brown line, ill-defined towards the costa of the anterior wings. The outer part of the wings beyond the white band is dusky, with two ill-defined rows of whitish markings.

Hab. Cameroons.

Closely allied to *C. ciceronis*, Ward, but the white band is broader and the submarginal markings are less sharply defined.

*Cymothoë euthalioides.*Exp. $2\frac{1}{2}$ in.

Female brown, with black zigzag and annular markings in the cells, some of those on the posterior wings marked with tawny; the greater part of the wings beyond the middle whitish, with a double row of connected brown and blackish sagittate markings. Underside similar, but much paler, and consequently the markings towards the base better defined; a tawny line, straightest on the posterior wings, crosses the wings beyond the middle; the submarginal sagittate markings are more slender and better defined.

Hab. Cameroons.Allied to *C. harmilla*, Hew.XXV.—*The Staphylinidæ of Japan.*
By Dr. D. SHARP.

[Continued from p. 121.]

Group XANTHOLININA.

*Baptolinus pilicornis.**Staphylinus pilicornis*, Payk. Faun. Suec. iii. p. 380.

Nikko, August 1881; a series of seven examples.

Othius fulvipennis.

Pæderus fulvipennis, Fabr. Ent. Syst. i. 2, p. 537.

Hakone; one specimen only.

Xantholinus pauper, n. sp.

Angustus, brunneo-testaceus; elytris pedibusque testaceis; capite oblongo, opaco, crebre fortiter punctato; thorace crebre punctato, linea mediana lævigata.

Long. $5\frac{1}{4}$ millim.

Antennæ stout, with short scape, second and third joints moderately long, subequal, fourth to tenth transverse. Head obscure red, dull, coarsely punctate, the intermediate antennary grooves large and deep, the lateral grooves absent. Thorax slender, a little narrowed behind, a broad space along the middle smooth, but the sides distinctly and numerous though not densely punctured. Elytra not so long as the thorax, paler in colour than it, moderately closely and distinctly punctate.

This is a peculiar species, not well located in *Xantholinus*; but as it does not agree with any other genus, and its differential characters from *Xantholinus* are not very important, it is not desirable to treat it as a distinct genus at present. The terminal joint of the maxillary palpus is slender and about intermediate between that of *Xantholinus* and *Leptacinus*. The prothoracic pleura is of moderate size, not abbreviate, and its superior line is distinct; the front tarsi are simple, the middle coxæ moderately distant, the legs rather short, and the tibiæ spinulose.

Chiuzenji and Nikko, August 1881; one example from each locality.

Xantholinus tubulus, n. sp.

Subcylindricus, niger, nitidus; antennis, elytris pedibusque rufis; capite oblongo-ovali parce sat fortiter punctato; thorace seriebus dorsalibus circiter 10-punctatis.

Long. 7-8 millim.

Antennæ stout, second and third joints moderately long, subequal. Head black, very shining, impunctate along the middle, but with numerous rather fine punctures elsewhere. Thorax not slender, a little narrowed behind, black and very shining, with two rather irregular dorsal series of punctures, and with a strongly curved series on each side. Elytra about

as long as the thorax, pale red, rather finely and distantly punctured. Hind body rather rough. In one of the sexes of this species the terminal segment exhibits behind a quite circular orifice, the hind margin of which is lined internally by a ring of black, densely and regularly crenate, corneous substance.

Nikko and Miyanoshita ; three examples.

This is closely allied to *X. pleuralis*, but has the thorax more elongate and with smaller punctures, which are more numerous in the dorsal series ; the elytra are bright pale red and the head is a little narrower.

Xantholinus cunctator, n. sp.

X. linearis, auct., peraffinis ; nigricans, nitidus, vix subæneus ; antennis pedibusque rufis ; thorace crebre punctato, seriebus dorsalisibus haud discretis.

Long. 6 millim.

Antennæ with second joint elongate, considerably longer than the third. Head rather short, oval, sparingly punctate. Thorax oblong, with the lateral punctures numerous, the dorsal series being not separated from the lateral punctures. Elytra about as long as the thorax, shining, sparingly and rather strongly punctate.

This is very closely allied to the European *X. linearis*, but is rather smaller and has the third joint of the antennæ smaller, the head considerably shorter, and the thoracic punctures more numerous.

Only two examples have been found at Miyanoshita.

Xantholinus angusticeps, n. sp.

Niger, nitidus ; antennis pedibusque rufis ; capite angusto, ovali, parce subtiliter punctato ; thorace seriebus dorsalisibus circiter 12-punctatis, ad latera parce irregulariter punctato, punctis omnibus subtilibus.

Long. 6 millim.

Head elongate and narrow, considerably narrower than the thorax. Antennæ with the second and third joints rather slender, the latter the longer. Thorax rather slender, oblong, shining black, its punctures fine, consisting of two dorsal series of twelve punctures each, and the same number of lateral punctures on each side, these latter irregularly placed. Elytra with an indistinct brassy tinge, not quite so long as the thorax, rather sparingly and finely punctate.

This species has somewhat the appearance of the genus

Mitomorphus, Kr., but appears to be really an ally of *X. linearis*, auct., though the terminal joint of the maxillary palpi is somewhat slender.

Nagasaki, April 1881; a single example.

Xantholinus punctiventris, n. sp.

Angustus, haud depressus, nigerrimus, nitidus; pedibus, clytris antennisque rufis, his articulis primo et tertio nigris; capite ad angulos posteriores parce punctato; thorace tantum ad angulos anteriores utrinque puncto singulo notato.

Long. 9 millim.

This is another anomalous *Xantholinus*, having the facies of *Gauropterus*, but with the thoracic pleuræ not abbreviate; the last joint of the maxillary palpus is large, the anterior tibiæ are short and thick, their tarsi a little dilated, and the prosternum short, so that the insect appears to be really allied to the large *Eulissi* of South America. The third joint of the antenna is elongate, longer than the second. The head is oblong, convex, very shining black, with a few moderately coarse punctures near the sides and hind angles. Thorax narrowed behind. Elytra elongate and narrow, sparingly punctate in an irregularly seriate manner. Hind body remarkably coarsely punctured.

Ichiuchi, May 1st, 1881; a single example obtained by sweeping.

Leptacinus planulatus, n. sp.

Subdepressus, niger, nitidus; clytris piceis; antennis rufis, pedibus piceo-rufis; capite oblongo-quadrato, parum punctato; thorace seriebus dorsalibus obsolete circiter 4-punctatis.

Long. 4½ millim.

Antennæ with short scape and small third joint only about half as long as the second, which itself is rather short. Head broad, but not so broad as long, straight at the sides and truncate behind, the intermediate antennal grooves obsolete, and the lateral or ocular ones present but very short, each being scarcely more than a very large puncture contiguous to the eye; the punctures are few and rather small. Thorax only slightly narrowed behind, the dorsal series consisting of four or five rather small punctures on each side, and besides these there are about the same number of still smaller punctures between the dorsal series and the lateral margin. Elytra longer than the thorax, almost impunctate.

This is an abnormal *Leptacinus*, on account of the obsolete frontal grooves.

Hitoyoshi, May 17th, and under bark of fir, Kuma Kuni, March 1881; one example from each locality.

Nudobius apicipennis, n. sp.

Subdepressus, nigerrimus, nitidus, pedibus rufis; antennis piceis, elytrorum apice testaceo-marginato.

Long. 8-9 millim.

Head oblong, closely and coarsely punctured. Thorax very shining, narrowed behind, and with the sides sinuate in the middle; the dorsal series of punctures are very distinct, consisting each of eight punctures, and there are also a few punctures near the side and front margin. Elytra longer than the thorax, shining black, with a faint blue or green tinge, and the hind margin yellow; finely and sparingly punctate. Underside of head coarsely punctate.

This species is allied to the European *N. collaris* and lives exclusively under bark; it was met with at Miyanoshita, Kiga, Kuma Kuni, Sendai, and Sapporo.

Subfam. PÆDERINÆ.

Group LATHROBIINA.

In this group I have established several new genera separated from *Lithocharis*, treating the eastern forms in a manner similar to that already applied to the Neotropical forms in the 'Biologia Centrali-Americana.'

Cryptobium cuneatum, n. sp.

Nigrum, nitidum; antennis fuscis, pedibus testaceis; capite angusto, dense fortiterque punctato; elytris thorace vix longioribus.

Long. 8-9 millim.

Antennæ infusate red, paler at the extremity. Head long and narrow, much narrower than the elytra, densely and coarsely punctate, the space between the antennal elevations much sculptured. Thorax long and narrow, not narrowed towards the front, moderately coarsely and not closely punctured, very shining, opalescent, a broad space along the middle impunctate. Elytra narrow, closely and rather coarsely punctate, a little shining. Male with a very shallow broad excision of the last ventral plate.

Though closely allied to *C. densipenne*, this is a narrower insect, readily distinguished by the narrower head, more sculptured in front, and the more shining wing-cases.

Konosè, Ogura lake, Otsu, Miyanoshita, and at Yokohama.

Cryptobium densipenne, n. sp.

Nigrum : antennis pedibusque testaccis ; elytris thorace paulo longioribus, densissime ruguloso-punctatis.

Long. 10 millim.

Antennæ unicolorous, yellow. Head elongate and narrow, a little narrower than the thorax, distinctly narrower than the elytra, densely and coarsely punctured, the punctuation scanty in front, the surface shining and very little sculptured between the antennal elevations. Thorax elongate and narrow, slightly narrower in front, very shining, black, coarsely and rather closely punctured, a line along the middle smooth. Elytra slightly longer than the thorax, dull, densely punctured, the punctures confluent, so as to give rise to a rugulose appearance ; the line on the inflexed side present, but fine. Male with a deep excision of the last ventral segment.

Closely allied to *C. japonicum*, but readily distinguished by the longer elytra and narrower head.

Miyanoshita, one pair ; Yuyama, one example.

Cryptobium japonicum.

Nikko and Miyanoshita ; four examples.

Lathrobium pollens, n. sp.

Piceum, nitidum ; antennis pedibusque rufis ; capite brevi, subtriangulari ; elytris thorace fere duplo brevioribus.

Long. 10 millim.

Antennæ rather short and stout. Head short and broad, much narrowed in front, sparingly, moderately coarsely punctured, moderately shining ; eyes small. Thorax longer than broad, slightly narrowed behind, shining, nearly black, opalescent, rather sparingly punctured, with a broad space along the middle impunctate. Elytra very short, coarsely, somewhat sparingly, roughly punctured. Hind body rather broad, apex red. Front femora very thick. Male with a broad, shallow, rounded excision of the last ventral plate, the hind margin forming on either side of the excision a prominent

angle and bearing some short dark setæ; preceding segment with a much broader and shallower but otherwise similar excision.

Nagasaki, Nikko, Miyanoshita; in spring and early summer, six examples.

Lathrobium brachypterum, n. sp.

Piceum, nitidum; antennis pedibusque rufis; capite brevi, subtriangulari; elytris thorace fere duplo brevioribus.
Long. 8 millim.

This is very closely allied to *L. pollens*, but is a much smaller insect and more parallel; the head is much smaller and is quite sparingly punctured, the thorax is oblong, not at all narrowed behind, and the punctuation of the hind body is quite dense and fine. In the male the terminal ventral plate is not in the least emarginate, but its hind margin is slightly rounded, a broad space in front of this is slightly flattened and feebly granular; on the preceding segment there is a very obscure narrow impression just perceptible along the middle.

Nagasaki, Miyanoshita; five specimens.

Lathrobium monticola, n. sp.

Angustulum, piceum, nitidum; antennis pedibusque rufis; capite parvo, triangulari; elytris thorace duplo brevioribus.
Long. 7 millim.

Closely allied to *L. brachypterum*, but smaller and more slender, with more feeble antennæ, the head more triangular, and the eyes remarkably small; the elytra more sparingly and finely punctured and still shorter. The male is without positive sexual characters, but the hind margin of the last ventral plate is not produced and subacuminate as it is in the female.

This remarkable species is a mountain insect and was found near Nagasaki, April 11th, 1881; one pair.

Lathrobium carinicolle, n. sp.

Angustulum, subdepressum, nitidum, rufulum, dense punctatum; capite, thorace elytrorumque basi plus minusve fusco-obscuratis; thorace oblongo, medio linea arguta, subelevata, lævigata.
Long. 7-8 millim.

Antennæ red, rather elongate, penultimate joint longer

than broad. Head suborbiculate, quite as broad as the elytra, densely punctate, the punctuation on the vertex fine and extremely dense, on the anterior part coarser and more scanty. Thorax oblong, longer than broad, very densely coarsely punctured, a little shining, with a very conspicuous shining space extending all along the middle. Elytra scarcely so long as the thorax, parallel, shining, closely and coarsely punctured, with a very obscure linear arrangement of the punctures on the basal portion. Hind body extremely densely and finely punctured. Male with a broad shallow excision of the hind margin of the last ventral ring, and just in front of the middle of this a small patch of dense black asperities; the base of the segment exhibits a feeble depression along the middle.

Nikko, August; Nagasaki, June 1st; Kumamoto, April 25th.

L. anguinum is very closely allied to this species, but is more elongate, of a more uniform pallid colour, with a rather broader head, which has a definite smooth space on the middle, the elytra slightly longer, without any linear arrangement of the punctures. It has not been met with again.

Lathrobium cribricolle, n. sp.

Omnium fortissime dense punctatum, subcylindricum, nigrum, nitidum; antennis palisque rufis, pedibus flavis; elytris apice flavo-guttato.

Long. $6\frac{1}{2}$ millim.

Antennæ short and stout, penultimate joint a little longer than broad. Head oblong, excessively densely and coarsely punctured. Thorax oblong, rather longer than broad, shining black, remarkable on account of its excessively coarse punctuation, without smooth space along the middle. Elytra rather longer than the thorax, excessively coarsely punctured, each with a small yellow spot at the tip. Hind body entirely black. Male with a moderately broad and deep excision on the last ventral segment, and with a longitudinal depression extending along the middle of this and the preceding segment.

A very distinct species, to be placed near *L. nudum*.

Plain under Fujisan. Unique.

Lathrobium funebre, n. sp.

Angustum, elongatum, subdepressum, nigrum, nitidum, dense punctatum; pedibus fuscis, antennis tarsisque rufis; thorace linea mediana subelevata levigata; elytris illo paulo longioribus.

Long. 7 millim.

Antennæ elongate, penultimate joint twice as long as broad. Head very densely punctate, on the middle and in front more sparingly and coarsely. Thorax narrow, much longer than broad, densely punctate, with a very definite smooth line along the middle. Elytra distinctly longer than the thorax, closely and coarsely punctate, flat, black, shining, a little red or piceous at the hind margin. Hind body extremely densely and finely punctate.

This is closely allied to *L. carinicolle*, but is a smaller, darker, more depressed insect, and differs in numerous details.

Morioka; one female.

Lathrobium cognatum, n. sp.

Subdepressum, nigrum: antennis palpisque fuscis, pedibus sordide flavis; crebre minus fortiter punctatum, capite minore; prothorace absque linea lævigata discretæ.

Long. 8 millim.

Antennæ slender, as long as head and thorax. Head small, much narrower than the elytra, very densely and finely punctate, the punctuation absent from only a very small space on the middle. Thorax rather longer than broad, distinctly narrower than the elytra, rather coarsely and closely punctate. Elytra rather longer than the thorax, closely subobsoletely punctured.

This is closely allied to the European *L. terminatum*, but has denser finer punctuation on the head and elytra, the latter being rather longer; the pale legs distinguish it from both *L. terminatum* and *L. quadratum*. The male characters are the same as they are in the two European species.

Chiuzenji, 24th August; six examples.

Lathrobium pallipes, n. sp.

Gracile, subdepressum, angustum, nigricans: antennis palpisque fusco-testaceis, pedibus flavis; elytris ad angulos externos flavo-maculatis; dense subtiliter punctatum.

Long. 6 millim.

Antennæ very long and slender, infusate yellow, with the base and apex more clear; palpi yellow, terminal joint infusate. Head small, very finely punctate, shining on the middle. Thorax slender, oblong, rather closely punctate, with a space along the middle smooth. Elytra closely and rather finely punctate, longer and broader than the thorax, with a very distinct yellow spot at the outer apical angle of each.

Hind body excessively densely and minutely punctulate, the extremity more pallid. Legs clear yellow. Male with a small rather broad excision on the terminal ventral plate and a very slight depression along the middle of the preceding segment.

This is another ally of *L. terminatum*, but is a very slender insect, only half the size of its European ally.

Yokohama, 7th April; Kioto, 2nd August; Niigata, 6th September; one example from each locality.

Lathrobium fragile, n. sp.

Angustius, subdepressum, nigricans, nitidum; thorace piceo; antennis palpisque fusco-testaceis, pedibus flavis; elytris thorace paulo longioribus, ad apicem macula magna flava.

Long. $5\frac{1}{2}$ millim.

This is closely allied to *L. pallipes*, but is a much more slender and parallel insect, and differs as follows:—the head is almost as broad as the elytra, suboblong; the thorax is piceous; the elytra are only about as long as the thorax and are more sparingly punctured, and have a larger yellow apical spot. The male has a very small and short, only just perceptible, excision of the hind margin of the last ventral plate, and a slight deplation of the middle of the preceding segment.

Ogura lake, 7th July; five examples.

Lathrobium regulare, n. sp.

Parallelum, nitidum, nigrum; abdomine opaco; antennis pedibusque testaceis; thorace oblongo, dorso biserialim punctato, lateribus parce punctatis; elytris thorace brevioribus, parcius serialim punctatis.

Long. $6\frac{1}{2}$ millim.

A species of the *L. lusitanicum* group.

Antennæ rather slender and elongate; head suboblong, black, very shining, with irregularly placed, distant coarse punctures. Thorax oblong, straight at the sides, along the middle with two very regular series of punctures, ten or eleven punctures in each series, sides sparingly punctate. Elytra scarcely so long as the thorax, shining black, with a sutural series of punctures, then a rather broad smooth space, and outside this with three or four series of distant punctures. Hind body closely punctured, with a conspicuous fuscous pubescence. Male with a broad shallow excision of the hind margin of the last ventral plate.

Yokohama; six examples.

Lathrobium seriatum, n. sp.

Angustum, parallelum, nitidum, rufulum; capite elytrorumque angulis externis nigricantibus; antennis pedibusque testaceis; prothorace dorso biseriatim punctato, lateribus disperse punctatis; elytris prothorace paulo longioribus, crebrius seriatim punctatis.

Long. 6 millim.

Antennæ rather slender, moderately long. Head subquadrate, very shining, sparingly punctate, its upper surface more or less deeply tinged with black. Thorax longer than broad, straight at the sides, with the two series of punctures rather irregular and not very sharply distinguished from the lateral punctuation. Elytra a little longer and broader than the thorax, each with about six series of rather closely placed punctures; the outer hind angles obliquely black, the dark colour extending at the sides more than halfway to the front. Male with a very deep slender excision of the last ventral plate.

Yokohama; two examples. This species occurs also in China, and was taken there by Mr. Lewis near Kiu Kiang in 1864.

Lathrobium monilicorne, n. sp.

Subcylindricum, nigerrimum, nitidum; antennis, palpis tarsisque rufis, pedibus fuscis; capite parvo fortiter punctato; antennis crassiusculis; palpis articulo terminali crasso.

Long. 6½ millim.

Antennæ short and stout, dark red, and moniliform, the penultimate joint scarcely longer than broad. Head small, suboblong, much narrower than the thorax, coarsely, not densely punctate. Thorax longer than broad, suboblong, a little narrower in front, coarsely, not densely punctate, with a smooth line along the middle. Elytra elongate and narrow, longer than the thorax, shining, coarsely, irregularly, rather closely punctured. Hind body rather coarsely punctate.

A peculiar species, probably entitled to generic distinction, the neck being more slender than usual, the pseudo-terminal joint of the palpi remarkably thick; the hind tibiæ but little incrassate and with their oblique truncation diminished; the tarsi more slender than usual. At present to be placed near *L. punctatum*.

Two females; taken in the plain of Fujisan in April 1880.

Domene daimio, n. sp.

Nigra; elytris, antennis pedibusque fusco-rufis; capite thoraceque densius fortiusque punctatis, illo subovali.

Long. $12\frac{1}{2}$ millim.

Antennæ elongate, penultimate joint much longer than broad. Head elongate, very densely and coarsely punctured, not quite dull. Thorax oblong, very coarsely and densely punctured, a little shining. Elytra as long as the thorax, rufescent, darker at the base, densely punctured. Legs obscure red, femora darker. Male with the hind margin of last ventral segment sinuate-emarginate and in the middle with a rather small excision; in front of this a small depression densely set with black asperities; the preceding segment very slightly impressed.

This fine insect is larger than *D. crassicornis* and readily distinguished by the long antennæ and narrow head; the shape of the hind margin of the last ventral segment in the male is peculiar.

Miyanoshta, May 1880; one example.

Domene crassicornis.

Lathrobium crassicorne, Sharp, Trans. Ent. Soc. Lond. 1874, p. 59.

The male has a large sharply defined excision of the last ventral segment and in front of this a rather broad depression studded with fine black asperities; the preceding segment bears a slight but broad depression.

Apparently scarce; Miyanoshta and Yuyama in May, Kôbè in June.

Domene orbiculata, n. sp.

Latiuscula, fusca; capite thoraceque nigricantibus; antennis rufis, pedibus testaceis; elytris thorace multo brevioribus, fusco-æneis; capite thoraceque densissime subtiliter sculpturatis, illo orbiculato.

Long. 10 millim.

This is readily distinguished from *D. curtipennis* by the broader form and the denser finer sculpture of the head and thorax; the antennæ are much larger, being both longer and thicker.

Chiuzenji, 22nd August, 1881; one female, under dead leaves.

Domene curtipennis, n. sp.

Nigra, angustula; antennis rufis, pedibus testaceis; elytris fusco-æneis; thorace haud longioribus.

Long. $6\frac{1}{2}$ – $7\frac{1}{2}$ millim.

Head suborbiculate, very densely, rather coarsely sculptured, quite dull. Thorax longer than broad, very densely, rather finely, rugosely sculptured. Elytra about as broad as the thorax and not longer than it, of a dusky reddish colour, with a strong brassy tinge, rather shining, densely moderately finely punctured. Hind body black or piceous, paler at the extremity. The male has a very small excision at the extremity of the last ventral segment and in front of it a narrow elongate depression studded with black granules; the preceding segment has a well-marked, large, but not deep depression.

Closely allied to *D. stilicoides*, but smaller, with shorter and narrower elytra, more orbiculate head, and shorter metasternum. Also very similar to the European *D. scabricolle*, but more finely sculptured, the elytra not narrower at the shoulders, and the male characters different.

Yokohama, April; Nikko, June; Chiuzenji, 22nd August; rare.

Domene stilicoides.

Lathrobium stilicoides, Sharp, Trans. Ent. Soc. Lond. 1874, p. 58.

The male is still unknown; the two examples found during his recent expedition by Mr. Lewis are both females.

Ichiuchi, 30th April, 1881, under dead leaves in a hollow tree.

Scopæus currax, n. sp.

Angustulus, elongatus, haud depressus, rufescens; antennis pedibusque testaceis; elytris fuscis, apicem versus flavis, prothorace paulo longioribus.

Long. 4 millim.

Antennæ clear yellow, slender and elongate, penultimate joint considerably longer than broad. Head narrow and elongate, but little emarginate behind, dull, very densely and finely punctate. Thorax subovate, longer than broad, but little narrower than the elytra, rather shining, almost imperceptibly punctate, with a short carina on the middle behind. Elytra long and narrow, densely punctate, dull, fuscous, with the apical third of the length yellow.

This insect is allied to the European *S. Erichsonii*, from which, however, it is abundantly distinct. Although no males have been found, it is so different from the other Japanese species that no difficulty will be found in identifying it. It is rather longer than *S. Erichsonii* and less depressed; it is more elongate, the head especially being more elongate and narrower in front.

Yokohama, Niigata, and Nikko; four examples.

PANSCOPEUS, nov. gen.

Caput collo angustissimo. Labrum medio excisione parva utrinque denticulo parvo instructa. Prothorax pentagonalis: prosternum processu supracoaxali abbreviato. Tarsi graciles, anteriores haud dilatati, posteriores filiformes, articulo basali quam secundo duplo longiore.

This genus agrees with *Scopæus* in the very slender neck, but in other respects it is nearer to *Lithocharis*, next which it should be placed, though it is well separated by the form of the head and thorax. On each mandible one tooth only can be seen, but the basal portion of the mandible is incrassate inwardly and slightly notched, so as to represent on the left side two, on the right three, rudimentary teeth. The slender and linear hind tarsi are quite different from the feet of *Scopæus* and agree better with *Lithocharis*.

Panscopæus lithocharoides.

Scopæus lithocharoides, Sharp, Trans. Ent. Soc. Lond. 1874, p. 63.

This species has been found in several localities on the main island; Biwa Lake and Nikko.

CHARICHIRUS, nov. gen.

Labrum magnum, medio fortiter dentatum, utrinque subsinuatatum. Caput collo angusto; prosternum processu supracoaxali abbreviato. Tarsi omnes graciles, anteriores simplices, posteriores articulis quatuor basalibus longitudine gradatim decrescentibus, articulo secundo elongato, quam quarto plus duplo longiore.

This insect has more the appearance of *Medon* than of *Lithocharis*, but cannot be placed in the former genus on account of the abbreviated prosternal process; from *Lithocharis* it is well distinguished by the structure of the labrum, which has a large tooth in the middle; the neck, too, is a little broader and the second joint of the hind foot much

longer relatively when compared with the fourth. The only species, so far as I know, is the following.

Charichirus spectabilis.

Lithocharis spectabilis, Kr. Arch. f. Naturg. xxv. p. 134.

This may perhaps have been introduced into Japan, as it is apparently rare there, though widely distributed in the eastern and southern parts of Asia.

ISOICHEILUS, nov. gen.

Labrum fere simplex; mandibulæ tridentatæ. Caput collo medio-criter angusto. Tarsi anteriores leviter dilatati, posteriores articulis quatuor basalibus gradatim decrescentibus. Prosternum processu supracoxali brevi.

This genus undoubtedly comes very close to the New-World *Aderocharis*, and its unique species has quite the appearance of the genus last named; nevertheless I think the two are better separated. The labrum in *Isocheilus* when mounted in balsam is seen to be divided nearly to the base by a deep abrupt excision, which, however, is filled up by a horny process, the front margin of which does not extend quite so far forward as the lateral portions, whereas in *Aderocharis* the excision is much narrower and the front of the labrum is most prominent in the middle, being in fact distinctly dentate. Each mandible in *Isocheilus* is tridentate, while in *Aderocharis* the right mandible is quadridentate. The very short prosternal process is one of the most important characters of *Isocheilus*. The genus at present has only one species, viz. :—

Isocheilus staphylinoïdes.

Lithocharis staphylinoïdes, Kr. Arch. f. Naturg. xxv. p. 135.

Not uncommon in Japan. I have not seen specimens from Ceylon, the locality of the examples described by Kraatz.

Thinoharis basicornis.

Scopæus basicornis, Sharp, Trans. Ent. Soc. Lond. 1874, p. 63.

This minute insect is perhaps not rare, though its small size will probably render its capture somewhat unfrequent. Mr. Lewis has brought back only three or four examples. It is probably a *Thinoharis*, though this is by no means cer-

tainly ascertained, as I have seen no insect from Ceylon or any other locality than Japan that I can assign to the genus, and the trophi have not been dissected.

MEDON.

This genus, as I have pointed out elsewhere in confirmation and amplification of the views of Thomson and Rey, is quite distinct from *Lithocharis*. Most of the Japanese species of it are, however, dissimilar in appearance from the European forms, and some of them will probably prove generically distinct.

Medon rubeculus, n. sp.

Angustulus, densissime subtilissime punctatus, subopacus, nigricans :
elytris, antennis pedibusque dilute rufis.

Long. $4\frac{1}{2}$ –5 millim.

Antennæ slender, third joint about equal in length to the second, slightly more slender than it, penultimate joint not so long as broad. Head subquadrate, very finely and densely punctured, quite dull. Thorax subquadrate, densely, very finely punctate, without any definite smooth line along the middle, very feebly canaliculate in the middle behind. Elytra longer than the thorax, dilute red, with the base infuscate, densely and finely punctate. Legs slender, hind tarsi quite slender.

Iwaki and Sapporo; two badly preserved females. Though I have not been able to see the structure of the mandibles and labrum, I do not doubt this being a *Medon*. It bears a considerable resemblance to *M. prolixus*, but possesses very different feet.

Medon Lewisius.

Lithocharis Lewisia, Sharp, Trans. Ent. Soc. Lond. 1874, p. 65.

Nagasaki, Yokohama, Miyanoshta, Ichiuchi, Hitoyoshi, Hakone, Nikko. All the examples have been found under bark, so that the occurrence of the example originally described on the sea-shore was no doubt merely accidental. I have not detected any sexual characters. The colour of the head and thorax varies from dark red to black.

Found in many localities, Nikko being the most northern point.

Medon confertus, n. sp.

Fusco-rufus; capite, thorace elytrisq̄ue nigricantibus; abdomine ante apicem nigro-variegato; antennis rufis, pedibus flavis; opacus, capite thoraceq̄ue densissime subtiliter subrugose punctatis, hoc medio angustissime carinulato.

Long. 5 millim.

Rather narrow. Antennæ red, the middle joints slightly darker, penultimate joint not quite so long as broad. Head quadrate, excessively densely punctured, so as to be dull, the punctuation only moderately fine. Thorax subquadrate, but little broader than long, its punctuation even denser and finer than that of the head, with a very fine smooth line along the middle. Elytra rather long, a good deal longer than the thorax, densely and finely punctate, slightly shining. Hind body red at the base, the apical segments black, but the black colour is interrupted by the hind margin of the penultimate and the base of the terminal segments being red.

I can see no character foreign to *Medon* in this species except that the anterior tarsi are a little more dilated than is usual.

Yuyama and Hitoyoshi, May 1881; five examples.

Medon spadiceus, n. sp.

Depressus, latiusculus, fuscus; capite nigro; elytris sordide testaceis; antennis rufis, pedibus testaceis; capite thoraceq̄ue fortiter punctatis, hoc medio profunde canaliculato.

Long. 5 millim.

Antennæ red, rather stout, slightly thicker externally, penultimate joints very distinctly transverse. Head broad, subquadrate, slightly narrowed in front, densely and very coarsely punctate, with a smooth line along the middle in front. Thorax transverse, a little narrowed behind, coarsely and closely punctate, obscure black in the middle, obscure red at the sides, with a very distinct channel along the middle. Elytra a little longer than the thorax, shining, somewhat sparingly punctate, the extremity yellow, the base infuscate yellow.

This is apparently a very distinct species and will readily be recognized by the deep channel on the thorax. It is sufficiently distinct from *Medon* to be generically separated, the basal tooth on the right mandible being only obscurely divided and the hind tarsus short, with the four basal joints subequal in length.

Unique. Chiuzenji, 19th August, 1881.

Medon discedens, n. sp.

Subdepressus, elongatus, picco-niger, nitidus; antennis pedibusque rufis, illis gracilibus; capite thoraceque irregulariter, minus dense, fortiter punctatis.

Long. 6-6½ millim.

Antennæ slender and elongate, penultimate joint quite as long as broad. Head large, shining, black, coarsely, rather sparingly punctate, more sparingly on the middle. Thorax strongly transverse, much narrowed behind, coarsely punctate, quite shining. Elytra rather longer than the thorax, with a close, rough, rather coarse sculpture. Hind body moderately closely granulose punctate. Hind tarsi quite slender, basal joint twice as long as the third.

This is another peculiar, very distinct species. The labrum is divided in the middle nearly to the base by a deep angular excision, on either side of which there is a very slight projection; the front tarsi are scarcely dilated; the teeth of the mandibles are large and there is on either side one less than normal; the left mandible is only bidentate, but the large basal tooth is bidentate at the extremity; the right mandible is tridentate.

Kiga and Miyanoshta.

Medon submaculatus, n. sp.

Testaceus; capite abdomineque ferrugineis, hoc ante apicem fusconotato; elytris ad latera plus minusve argute nigro-maculatis.

Long. 4½ millim.

Head not large, finely, extremely densely punctate, dull. Thorax transversely subquadrate, slightly narrowed behind, densely, rather finely rugose-punctate, with a smooth line along the middle, becoming obsolete in front. Elytra densely and finely punctate, with a dark mark, frequently obsolete, on the middle of the side of each. Hind body very finely punctate, the antepenultimate dorsal plate infuscate. Front tarsi strongly dilated; hind tarsi quite slender, basal joint twice as long as the second. Male with a broad shallow excision on the hind margin of the last ventral plate.

This is another peculiar species with strongly dilated front feet and unusually small teeth on the mandibles.

Sandy river-banks, Niigata, Kashiwagi, Nagasaki.

Medon prolixus.

Lithocharis prolixa, Sharp, Trans. Ent. Soc. Lond. 1874, p. 65.

The nearest ally of this species is the European *L. mari-*

tima, Aubé. I think the two might well form a distinct genus on account of the *Scopæus*-like structure of the feet.

Local; under seaweed, Mississippi Bay, Yokohama.

Lithocharis ochracea.

Pæderus ochraceus, Grav. Col. Micr. p. 59.

Mr. Lewis has obtained at Nagasaki and Yokohama a few individuals which I think belong to this species; unfortunately they are all females, and the determination is a little uncertain, *L. parviceps* being so extremely like this species that the two can only be certainly distinguished by the male characters.

Lithocharis dissimilis.

Lithocharis dissimilis, Sharp, Trans. Ent. Soc. Lond. 1874, p. 66.

This species has not been found again; there is little doubt that it will form a new genus near *Scioporus*, but it would be scarcely possible to ascertain the characters sufficiently without too great a manipulation of the unique example.

[To be continued.]

XXVI.—Notes on the Genus *Melapium*, II. and A. Adams.
By EDGAR A. SMITH.

THIS genus of Mollusca was founded by Messrs. H. and A. Adams* for the reception of the *Pyrula lineata* of Lamarck, a species which appeared to them, even on conchological grounds alone, generically distinct from *Pyrula*. An examination of the animal, which I have been able to make through the kindness of Mr. J. H. Ponsonby, confirms the correctness of their judgment. The animal may be described thus:—

Foot oval, rather high, not truncate or biemarginate in front, in length about one and a half times the width, pale beneath, bordered all round above the margin with two bright red lines about 2 millim. apart. *Head* small, compressed. *Tentacles* 5 or 6 millim. long, acutely tapering. *Eyes* minute, at outer base of tentacles, on slight prominences. *Penis* compressed, 10 to 12 millim. in length, obtuse at the end. *Siphon* shortish, moderately acuminate. *Branchiæ* in two plumes, the

* Genera Moll. vol. i. p. 136.