

The Staphylinidae of Japan.

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XXXVI.—*The Staphylinidae of Japan.*
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THIS memoir is intended to add to our knowledge of the Coleoptera of Japan by description of the new species of Staphylinidae obtained by Mr. George Lewis during his tour in the islands in 1880-81. Previous to the year 1874 only three or four species of the family Staphylinidae were known as occurring in Japan; but in that year I enumerated, in the 'Transactions of the Entomological Society of London,' 190 species that had been obtained in the islands by Mr. Lewis during his first residence there; this total has since been increased by Weise and others to 218, as recorded in Herr von Schönfeldt's recent Catalogue of the Coleoptera of Japan. To this number I am now able to add 249, making a total of 467 species of the family at present known as inhabiting the archipelago.

Thanks to the efforts of Mr. Lewis we have attained a fair knowledge of the Coleoptera of the Japanese islands, his entomological work there having resulted in the formation of a collection of about 4000 or 5000 species of the order. Some considerable parts of this large and interesting collection have

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been thoroughly examined—the Geodephaga, with 406 species, and the Longicorns, with 286 species, by Bates; the Chrysomelidae, 303 species, by Baly and Jacoby*. These families, with the Staphylinidae, make a total of about 1400 species, and as they comprise insects of very varied habits, they may be taken for statistical purposes as probably fairly representative of the whole collection. Bates has already discussed† the relations of the Coleopterous fauna, so far as the ground-beetles and Longicorns are concerned, to that of the various adjacent regions; but as we can now make use of a much larger material, and as he followed Wallace's plan of using generic statistics for the purposes he had in view, it is still of interest to make a somewhat similar comparison, making use of the species of the four great groups I have mentioned above instead of the genera of the two groups treated by Bates.

Of the 1406 species found in Japan only 210 are known to occur in Europe and Siberia; so that only about 15 per cent. are common to the two subregions. A similar proportion appears to be maintained in the rest of the order Coleoptera, as von Heyden has stated, in the introduction to Schönfeldt's Catalogue of Japanese Coleoptera, that out of the 2682 species recorded in it 391, or rather less than 15 per cent., are also known to occur in Siberia or Europe. This is a very small amount of community for the two provinces; but there is considerable reason for supposing that the discrepancy between the two faunas is at present much greater than it will prove to be when our information is more exhaustive. Lewis's collections have been formed chiefly in the southern islands, whereas it is of course in the more northern island of Yezo that we should expect to find the greater amount of similarity with Siberia. Moreover the Coleoptera of the extreme east of Siberia are not very well known, so that I consider it far from improbable that as much as 30 or 40 per cent. of the species of Japanese Coleoptera may ultimately be proved to exist also in Siberia, though at present the amount is only 15 per cent.

A comparison of the Coleoptera of Japan with the fauna of the parts of the Asiatic continent more to the south than Siberia can at present be made only in a very imperfect manner; it is probable that we do not know more than one tenth of the species of Coleoptera inhabiting Manchuria,

* Some other families have been worked through by Lewis himself and by Gorham and Reitter, but to these, for my present purpose, I need not specially refer.

† *Trans. Ent. Soc. Lond.* 1883, p. 205 *et seq.*, and *Journ. Linn. Soc.* xviii. pp. 205-207.

Northern China, and Korea, so that no useful purpose would be served by estimating what percentage of the Japanese Coleoptera is at present known from there. A paper has recently been published by Herr Kolbe that gives us some, if only a little, information on the question of the relation between the Coleopterous faunas of Japan and of the other portions of Wallace's Manchurian subregion. Describing* a small collection of 142 species of Coleoptera made by Dr. Gottsche in Korea, he has entered fully into the question of the geographical relations of the species, and announces that Korea is "faunistically extraordinarily closely related to Japan," 77 out of the 142 species detected there being known as occurring also in Japan. This certainly leads us to infer that a considerable amount of community exists between the two provinces; but it appears to be by no means so great as might have been expected, for although we have a fair knowledge of the Coleoptera of the southern islands of Japan, it appears that out of 142 species from the Korea 65, that is nearly 46 per cent., are not known to be Japanese. Kolbe states also that the Korea has more in common with Japan than it has with China; but this is probably connected with the fact that we know so much more of Japanese than we do of Chinese Coleoptera.

I think it will be admitted that with such imperfect data as we possess we cannot pretend to form any trustworthy estimate of the exact relations of the Coleopterous fauna of Japan to those of other provinces. At present what we know seems to indicate a larger amount of endemism than we should have expected from its geographical position and from its proximity at more than one point to other lands; its fauna, too, seems to have affinities extending over a wide area, including some undoubted and even striking points of resemblance with North America and with East India.

The geographical position of the islands gives their fauna a considerable interest, which is much increased by the fact that the islands themselves are well separated from one another: a comparison of the fauna of the island of Yezo with those of Nipon, Saghalien, and Mantohuria could not fail to throw light on such questions as the exact relation between endemism and geographical isolation, and as the correlation between present climatic conditions and the distribution of species; but for all such purposes it is necessary to have a complete knowledge of the faunas of the various regions involved, and this we are very far from possessing. Mr.

* Arch. f. Nat. 1886, i. pp. 180-240.

Lewis has probably obtained somewhere between 50 and 80 per cent. of the beetles of Japan; but Yezo has been comparatively neglected, and of the Coleoptera of Saghalien and the Kurile Islands we know really nothing, whilst our knowledge of the beetles of the adjacent parts of the continent of Asia is quite rudimentary.

One of the points that has seemed to occasion some surprise is the occurrence in Japan of forms we were previously only acquainted with from the eastern tropics; but this is probably due to our great ignorance as to the fauna of extreme eastern Asia. In most other parts of the northern hemisphere, as is indeed well known, the tropical fauna is separated from that of the temperate regions by intervening zones of barren country, very different in climate and in capacity for supporting life from the regions adjacent to them. In the extreme east of Asia there seems to be no such barrier to the spread of tropical forms of life into temperate regions, or of temperate forms into tropical regions, and such information as we possess about this region seems to show that a great mixture exists. Bates has already pointed out that there is a large tropical element in the Coleoptera of Japan; and Fairmaire tells us* of Yunnan, far to the south, that there is a great mingling of European genera with tropical forms; and Sémenow again, in remarking† on the Coleoptera collected in China and Mongolia by Potanin, says that three faunas are represented, one of them eminently palaearctic. At present therefore it appears very doubtful whether in this part of the world any natural separation between Palaearctic and Oriental regions exists.

In the present paper I have not included the names of all the species of Japanese Staphylinidae, those that have been recorded in my previous paper on the subject (Trans. Ent. Soc. 1874, pp. 1-108) only being mentioned when I have some addition or correction to make. I have, however, included the names of all other species that I know of as recorded from the islands; so that this and the paper just mentioned give a complete list of Japanese Staphylinidae up to this date.

* Ann. Soc. ent. Belg. 1887, p. 87.

† Hor. Soc. ent. Ross. xxi. p. 390.

Subfam. ALEOCHARIDÆ.

Group ALEOCHARINA.

Aleochara claviger.*Aleochara claviger*, Sharp, Tr. Ent. Soc. Lond. 1874, p. 7.

Mr. Lewis has brought from Hakodate a single specimen, having the elytra of a clear pale red colour. I do not know whether it is distinct or only a variety of *A. claviger*. It comes very near to *A. colobensis*, Fauv., but is more finely punctate.

Aleochara discoidea.*Aleochara discoidea*, Sharp, Tr. Ent. Soc. Lond. 1874, p. 7.

A small series of examples from different localities on the main island show that this is either a very variable species or that there may be two or three species in Japan very closely allied to *A. fuscipes*, L.; but the material is quite insufficient to form a judgment on.

Aleochara lata?*Aleochara lata*, Gravenhorst, Col. Micr. p. 183.

Kiga and Miyano-shita; two specimens. These examples do not agree exactly with either European or North-American specimens, and may possibly be distinct; they are very broad and densely punctate.

Aleochara asiatica.*Aleochara asiatica*, Kr., Wieg. Arch. f. Nat. xiv. p. 13 (sep. pag.).*Aleochara japonica*, Sharp, Tr. Ent. Soc. Lond. 1874, p. 8.

We have not yet obtained in Japan any examples with red elytra, such being, according to Kraatz, the ordinary form in Ceylon; but both Kraatz and myself have pointed out that the species is variable in colour, and I have no doubt that the two forms are not distinct.

Aleochara niponensis, n. sp.

Nigra, fusco-pubescent, antennarum basi pedibusque testaceis; dense punctata; antennis apicem versus latioribus, articulis 5^a-10^a transversis.

Long. 6 millim.

Antennae short, rather stout, the three basal joints sordid red; ninth and tenth joints quite similar to one another. Thorax strongly transverse, densely and finely punctate and pubescent. Elytra about as long as the thorax, densely, moderately finely punctate, the hind margin very slightly red. Hind body much narrowed to the extremity, densely, moderately finely punctate; last dorsal plate with the hind margin simple.

Kiga, Nagasaki, and Nikko; four specimens.

The place of this species is between *A. bipunctata* and *A. asiatica*; from the former it is distinguished by the finer punctuation and shorter and thicker antennae, and from *A. asiatica* by denser and finer punctuation and the unemarginate last dorsal plate.

Aleochara nitida.*Aleochara nitida*, Grav. Col. Micr. Bruns. p. 97.

Found on the main island at Inoshima and in Yezo at Hakodate; several examples.

Aleochara equalithorax (Fauvel in litt.), n. sp.

Opaca, fusco-nigra, breviter flavo-setosa; prothorace peropaco, obsolete punctato; elytris abdomineque densissime punctatis; antennarum basi pedibusque fuscis.
Long. 4 millim.

Antennae small and not thick, penultimate joint evidently transverse. Head narrow, quite dull, almost impunctate. Thorax transverse, remarkably dull, sparingly and obsolete punctate, along the middle an obscure, rather broad, scarcely elevated space quite free from sculpture. Elytra scarcely longer than the thorax, very densely and roughly sculptured. Hind body very densely punctate. Mesosternum very strongly carinate quite to the apex.

Hagi (Fauvel), Hakodate (Lewis).

I have preserved the name proposed for this curiously sculptured species by the well-known French savant.

Aleochara trisulcata.*Aleochara trisulcata*, Weise, Deutsche ent. Zeitschr. 1877, p. 88.

Hagi (Weise), Hakodate (Lewis).

Only one example of this very peculiar little insect was obtained by Mr. Lewis.

*Homosusa acuminata.**Euryusa acuminata*, Märkel, Stett. ent. Zeit. 1842, p. 143.

Miyanoshta, May 1880; one example, agreeing exactly with European specimens.

Homosusa laevigata, n. sp.Nigra, subnitida; antennis, pedibus anoque rufo-sordidis; subtilissime punctulata; thorace fere laevigato.
Long. 3½ millim.

Antennae rather short, much thicker externally, fifth to tenth joints transverse, terminal joint elongate, nearly as long as the preceding three together. Thorax strongly transverse, considerably broader than the elytra, bisinuate on each side at the base; hind angles acute, sharply defined, the surface sparingly and excessively finely punctate, somewhat shining. Elytra about as long as the thorax, very finely punctate. Hind body acuminate behind, very finely punctate.

Soba, July 30th, 1881; one specimen in an ant's nest.

Homosusa longicornis, n. sp.Picea, hand nitida, thoracis lateribus anoque testaceis; elytris brunneis; antennis pedibusque rufis; subtiliter punctata; antennis sat elongatis, articulo penultimo vix transverso.
Long. 8½ millim.This insect is considerably larger than *H. japonica* and has quite different antennae, these organs being more slender and elongate than they are in *H. japonica* or the other known species of the genus. The thorax is strongly transverse, a little rounded at the sides, bisinuate behind, the hind angles slightly acute; the surface finely punctate and pubescent. Elytra about as long as the thorax, rather closely and finely punctate. Legs rather long.

Sapporo; one specimen.

ASPIDOBACTRUS, nov. gen.

Tarsi anteriores 5-articulati. Antennae breves, crassae, fusiformes, rigidae. Pronotum magnum, anterius semicircularare, posterius bisinuatum. Coxae intermedias contiguae.

Of this peculiar insect Mr. Lewis obtained only one example, and although I can see its characters only very im-

perfectly, I have little or no doubt that it is allied to *Homosusa*, and distinguished from it and other neighbouring genera by the very peculiar antennae, the joints of which are consolidated, so that they cannot be easily counted; the terminal joint is elongate, acuminate, about equal in length to the rest of the consolidated mass; the first joint is distinct, the second and third small and slender, the following joints considerably larger, consolidated.*Aspidobactrus claviger*, n. sp.Ferrugineo-testaceus, abdomine obscuriore apice testaceo, subtiliter punctulata; thorace anterius rotundato, abdomine acuminato.
Long. 3 millim.

Antennae short, thick, rigid, subacuminate. Head immersed under the large thorax; this latter completely rounded at the front and sides, the base strongly bisinuate, the hind angles acute and projecting backwards, the surface finely punctate and pubescent. Elytra considerably shorter and narrower than the thorax, strongly sinuate near the outer hind angle, finely punctate; scutellum not visible. Hind body strongly narrowed from base to apex, feebly punctate, rather strongly pubescent. Tarsi rather short, very slender, especially at the extremity.

Nikko; one specimen.

This is one of the most remarkable of the Staphylinidae captured by Mr. Lewis, and is pretty certainly either myrmecophilous or termitophilous in its habits.

Thiasophila oxypodina, n. sp.Elongata, subparallela, minus depressa, subtilissime punctata, evidenter pubescens, opaca, rufo-testacea, abdomine medio nigricante.
Long. 2½ millim.

Antennae red, thick, thicker externally, second and third joints subequal, fifth to tenth strongly transverse. Head rather narrow. Thorax slightly transverse, densely punctate, base scarcely bisinuate, hind angles very minutely acute. Elytra slightly longer than the thorax. Hind body slender, rather sparingly punctate, basal two segments deeply transversely impressed at the base.

Hakone, Suyama, Miyanoshta, in company with a small ant.

This little insect seems better placed in *Thiasophila* than

in *Oxytoda*, but will probably prove to belong to a distinct genus between these two and also related to *Homocusa*.

Oxytoda luridipennis, n. sp.

Elongata, angustula, nigra; elytris fusco-ferrugineis, antennis pedibusque testaceis; dense subtilissime punctulata, opaca; antennis sat elongatis.
Long. 4 millim.

Antennae slender, not thicker externally, each joint longer than broad; terminal joint elongate, but not so long as the two preceding together. Head orbicular, not much more than half as broad as the elytra. Thorax not strongly transverse, but evidently broader than long, rounded at the sides and a little narrowed in front, very densely punctate. Elytra rather long, distinctly longer than the thorax, very finely punctate. Hind body excessively finely and densely punctate. Legs clear yellow.

Yokohama, Oyama; two specimens.

Oxytoda subrufa, n. sp.

Elongata, angusta, rufa, opaca, dense subtilissime punctulata pubescensque; thorace elytris obscurioribus, capite nigricante, pedibus testaceis.
Long. 2½ millim.

Antennae short, third joint shorter than second, fourth short, slightly transverse, fifth to tenth differing little from one another, each rather strongly transverse, terminal joint obtuse, not twice as long as the tenth. Head narrow, closely and finely punctate. Thorax rather broader than long, front angles extremely depressed, rather broader at the base than in front, very finely and densely punctate. Elytra longer than the thorax. Hind body elongate and narrow, very densely and finely punctate, and delicately pubescent, not so dull as the front parts.

Nagasaki, in February and March; three specimens.

Oxytoda hilaris, n. sp.

Angustula, rufa, dense subtilissime punctata pubescensque, opaca; capite, elytris posterius abdomineque ante apicem fuscescentibus, pedibus testaceis.
Long. 3 millim.

Antennae short and stout, third joint longer than the second,

fifth to tenth strongly transverse, terminal joint as long as the two preceding joints together. Head infuscate red, rather broad and short, very finely punctate. Thorax strongly transverse, nearly twice as broad as long, base much rounded, very finely punctate. Elytra yellow at the base, fuscous for a large space at the outer apical angle, a good deal longer than the thorax, very densely punctate. Hind body with the basal two segments yellow, the following three fuscous, closely very finely punctate.

Nikko, Yokohama, Kuromasu; five examples.

Oxytoda laeta.

Oxytoda laeta, Weise, Deutsche ent. Zeitschr. xxi. (1877) p. 97.

Hagi; not found by Lewis.

Calodera desdemona, n. sp.

Elongata, angustula, fusco-testacea; antennis pedibusque pallidis, abdomine medio nigricante; dense subtilissime punctata; prothorace sat elongato.
Long. 3 millim.

Antennae entirely pale red, fourth joint much broader than the third, fourth to tenth very similar to one another, each transverse, terminal joint twice as long as the tenth. Head suborbicular, piceous. Thorax about as long as broad, densely and very finely punctured, with a transverse impression in front of the base in the middle. Elytra a little longer than the thorax, finely, very densely punctate. Hind body closely and finely punctate.

Yokohama; one specimen.

Closely allied to *C. aethiops*, but about twice the size.

POBOCALLUS, nov. gen.

Tarsi omnes 5-articulati. Palpi maxillares triarticulati, articulo tertio lato, cyathiformi.

This genus is most nearly allied to *Callicerus*, agreeing with it in the peculiar structure of the maxillary palpi, which are of the type seen in some genera of Pæderidae, the penultimate joint being broad and truncate at the apex and no doubt receiving the fourth joint, which is invisible; the labial palpi are triarticulate, the basal joint stout, the terminal joint minute and slender; the genus are very obsoletely margined. The middle coxae are distinctly separated, the mesosternum

much produced between them, but not quite meeting the raised margin of the metasternal process. The basal joint of the hind tarsus is very long, longer than the three following together. By this character the genus is well distinguished from *Callicerus*. In *Callicerus* the anterior tarsi are said to be only four-jointed; in *Porocallus* they appear to me to be five-jointed, but I may possibly be mistaken, as I have only one example at my disposal, and in it the feet have been clogged with gum-tragacanth.

Porocallus insignis, n. sp.

Niger, capite, thorace elytrisq. fusco-nigris, densissime punctatis, opacis; abdomine nitido, crebre punctato; antennis, palpis pedibusque rufis.
Long. 6 millim.

Antennae elongate, rather stout, but little thicker externally, third joint longer than the second, little longer than the fourth, longer than broad, terminal joint elongate, considerably longer than the tenth. Head broad and short, extremely densely punctate, quite dull. Thorax a little narrower than the elytra, transverse, slightly narrowed behind, extremely densely, moderately coarsely punctate, quite dull. Elytra broad, longer than the thorax, dull, densely punctate, the colour towards the hind margin brown, the punctuation there rather coarser and less dense. Hind body with each of the basal segments depressed at the base, and there densely punctate, each behind more sparingly and finely punctured.

Yuyama, May 11th, 1881; one specimen, probably a female.

Group MYRMEDONIINA.

SAPHOCALLUS, nov. gen.

Tarsi anteriores 4-, intermedii et posteriores 5-articulati. Palpi maxillares triarticulati, articulo tertio sat gracili, apice truncato.

Antennae elongate. Head narrow, with convex eyes. Thorax quadrate. Middle coxae slightly separated, but neither the metasternum nor the mesosternum is much produced between them, so that a great space in the longitudinal direction exists between the margins of these two parts. Legs elongate. The hind tarsi long, the basal joint elongate, not twice as long as the second joint, this latter a little longer

than the third, the two together about as long as the basal joint; terminal joint slender, about as long as the basal joint.

The place of this genus will be between *Myrmecia* and *Callicerus*; the insect resembles *Callicerus obscurus* in appearance, but it is well distinguished by the structure of the breast.

Saphocallus parviceps, n. sp.

Angustulus, fuscus, antennis pedibusque rufis; elytris fusco-ferrugineis; thorace subquadrato, densissime punctato, opaco, elytris illo longioribus, fortiter punctatis.
Long. 3½ millim.

Antennae elongate, red, darker at the base, third joint quite as long as the second, tenth as long as broad, terminal joint elongate, nearly twice as long as the tenth. Head narrow, and considerably narrowed behind the prominent eyes. Thorax evidently narrower than the elytra, nearly as long as broad. Elytra rather roughly punctured, conspicuously emarginate near the outer hind angle. Hind body slender, shining, the base of each segment punctate and somewhat depressed. In the male there is a tubercular elevation on each wing-case near the suture behind; a short denticle on the middle near the hind margin of the penultimate dorsal plate of the hind body; the hind margin of the terminal dorsal plate is emarginate, and the genital armature projects as two short, stout, corneous processes.

Nagasaki, 6th April, 1881; one specimen.

Atemeles sinuata, n. sp.

Rufula, capite, thorace (lateribus exceptis), abdomine ex parte peo-
toreque nigris; thorace punctulato utrinque foveolato, lateribus
valde emarginatis, basi in medio longe lateque lobato.
Long. 5 millim.

Antennae moderately long and stout, penultimate joint slightly transverse. Head small, narrow, black, quite dull. Thorax transverse, irregular in shape, sides much elevated, a large fovea on each side, the base much produced in the middle. Elytra a little longer than the thorax, densely, very finely punctate. Hind body densely tufted at the sides and less conspicuously at the apex.

This is allied to *A. emarginata*, but has the thorax considerably more eccentric in form.

Chiuzenji; a single specimen, 21st August, 1881, in company of *Myrmica*.

Hoplandria convexa.

Hoplandria convexa, Weise, Deutsche ent. Zeitschr. xxi. (1877), p. 88.

Hagi. Described by Herr Weise from a single example; the genus is doubtful.

Myrmedonia optata, n. sp.

Nitida, capite, thorace, pectore elytrorumque angulis externis nigris, pedibus flavis; antennis, elytris abdomineque testaceo-ferrugineis, hoc apicem versus piceo-variegato; prothorace parce profundeque punctato, basi in medio profunde foveolato; elytris crebrius profunde punctatis.
Long. 6 millim.

Antennae long and stout, penultimate joints strongly transverse. Head very shining, with a few deep punctures. Thorax broader than long, very distinctly punctate. Elytra a little longer than the thorax. Hind body with the terminal segments marked with black; at the base of each segment a fine punctuation.

Kashiwagi and Chiuzenji; two specimens.

This is closely allied to *M. Haworthi*, but is much smaller, has the antennae comparatively larger, and the elytra more finely punctate.

Myrmedonia Haworthi.

Aleochara Haworthi, Steph. Ill. Brit. Ent. v. p. 126, pl. xxvi. fig. 3.

Hitoyoshi and Kashiwagi; two examples.

Myrmedonia fugax, n. sp.

Capite cum antennis, elytris, pectore abdominisque apice nigris; thorace abdomineque late rufo-testaceis, pedibus flavis, antennis articulo ultimo testaceo; thorace transversim subquadrato parce obsoleteque punctato.
Long. 5 millim.

Antennae thick, fourth to tenth joints strongly transverse. Head shining black, smooth in the middle, sparingly punctate at the sides. Thorax a good deal broader than long, sparingly and subobsolete punctured, with a basal depression in the middle, very shining, bright yellowish red. Elytra only slightly longer than the thorax, black, shining, rather closely and coarsely punctate. Hind body bright

yellowish red, with the terminal segments black, shining, with some fine punctures at the base of each segment.

Kioto, June 10th, 1881; one specimen.

A distinct species of the subgenus *Zyras*.

Myrmedonia particornis, n. sp.

Capite cum antennarum basi, elytris, pectore abdominisque apice nigris; thorace abdomineque rufo-testaceis; antennis extrorsum albidis, pedibus flavis; thorace subquadrato, obsolete punctato.
Long. 5 millim.

Antennae black at the base, the apical joints quite white, fifth to tenth joints transverse. Head shining black, obsolete punctate. Thorax a good deal narrower than the elytra, slightly broader than long, a little narrowed behind, foveolate at the base in the middle, sparingly and obsolete punctured. Elytra slightly longer than the thorax, shining black, coarsely, moderately closely punctate. Hind body with a few fine punctures at the base of each segment.

Kioto, July 2nd, 1881; one specimen.

This also belongs to the subgenus *Zyras*; it is very remarkable on account of the colour of the antennae.

Myrmedonia picta.

Ilyobates pictus, Sharp, Trans. Ent. Soc. Lond. 1874, p. 11.

This insect was met with again near Nagasaki. There are only four joints in the front feet, so the species must be removed to *Myrmedonia* and placed in the subgenus *Zyras*.

Myrmedonia cognata, var. *japonica*.

Myrmedonia cognata, Mörkel, Stett. ent. Zeit. 1842, p. 142.

On his previous visit to Japan Mr. Lewis found only a single example of this insect; but more recently he has procured a good series in the nests of *Formica japonica* at Bukeji. These examples differ from European examples of *M. cognata* in being of a more uniform and dark colour and more densely punctate; but as they agree in other respects I prefer to treat them as a variety, though, if these slight characters prove to be constant when examples have been found in other localities, the two forms may be really distinct. In Europe *M. cognata* inhabits the nests of *F. fuliginosa*, a species closely allied to *F. japonica*.

Myrmedonia similis.

Myrmedonia similis, Märkel, Germa's Zeitschr. v. p. 200.

Kiga and Miyanoshita; four examples. The species is rather rare in Europe, where it inhabits the nests of *Formica fuliginosa*. The ant to whose nest it is attached in Japan has not been noted.

Myrmedonia indiscreta, n. sp.

Fusco-picea, minus nitida, subtiliter punctata; antennis pedibusque rufis, abdominis segmentis basalibus piceis; thorace valde transverso, basi et lateribus rotundatis.
Long. 4 millim.

Antennae rather short, much thicker externally, fourth to tenth joints transverse, the last twice as broad as long, terminal joint moderately acuminate, quite twice as long as the tenth. Head black. Thorax about twice as broad as long, moderately closely and finely punctate; hind angles very obtuse and indistinct. Elytra a little longer than the thorax, densely and very finely punctate. Hind body impunctate.

Seba and Hakodate; six specimens.

This is similar to the European *M. laticollis*, but is much smaller and narrower and differs in numerous minor points.

Myrmedonia spreta, n. sp.

Nigra, elytris brunneis, antennis pedibusque rufis; antennis brevibus, apicem versus latioribus; prothorace furciter transverso, lateribus rotundatis, sat crebre asperato-punctato, basi in medio foveolato.
Long. 5-6 millim.

Basal three joints of antennae clear red, the others more obscure, third joint much longer than the second, fifth to tenth each transverse, each narrower at the base; penultimate joint more than twice as broad as long, terminal quite acuminate. Head broad and very short; eyes large. Thorax nearly twice as broad as long, sides and base rounded; hind angles very obtuse, the surface very distinctly, not densely punctate, minutely pubescent. Elytra a little longer than the thorax, closely and finely punctate, of a pale brown colour, darker at the outer apical angle. Hind body shining, impunctate.

Sapporo and Hakodate.

A very distinct species, somewhat similar to *M. laticollis* and *M. similis*, but with peculiar punctuation on the thorax.

Thamiaroa diffinis, n. sp.

Fusco-cinnamomea, abdomine nigro, segmentis basalibus ad latera rufo-maculatis, antennarum basi pedibusque testaceis; capite, thorace elytrisque subtiliter punctatis, abdomine nitido, fere impunctato.
Long. 5 millim.

Antennae moderately long and slender, setose, third joint elongate, longer than the second, fifth nearly as long as broad, sixth to tenth transverse, terminal joint acuminate, more than twice as long as the tenth. Head broad and short, not much more than half as broad as the elytra, sparingly and finely punctured. Thorax strongly transverse, the base rounded, the surface even, finely, moderately, closely punctate, shining. Elytra a little longer than the thorax, and rather more distinctly punctured.

This is larger than the European *T. cinnamomea*, and has longer and more slender antennae, and the upper surface is more shining.

HOMALOTA.

Mr. Lewis's collection contains examples of several species of this genus in addition to those I have described or determined; but the specimens are not sufficiently numerous or well preserved to describe from in this most obscure genus—the most difficult to deal with of all the genera of Coleoptera.

Homalota variolosa.

Homalota variolosa, Weise, Deutsche ent. Zeitschr. xxi. 1877, p. 89.

Hagi; one specimen. This has not been found by Mr. Lewis. The genus is doubtful.

Homalota Hilleri.

Homalota Hilleri, Weise, Deutsche ent. Zeitschr. xxi. 1877, p. 90.

Hagi, on the sea-shore.

Homalota niponensis, n. sp.

Parva, nitida, nigra; elytris fusco-testaceis, pedibus testaceis; prothorace transverso, medio late profundeque impresso, abdomine crebre punctato.
Long. 2½ millim.

Antennae small, rather slender, but little thicker externally,

basal joint fuscous, the others black; fourth to tenth joints slightly transverse. Head black, shining, impunctate, almost without pubescence. Thorax about as broad as the elytra, not twice as broad as long, rounded at the sides, very slightly narrowed in front, very delicately punctulate, shining, on the middle with a very large depression, not extending quite to the front. Elytra a little longer than the thorax, sordid testaceous, blackish at the base, very finely punctate. Hind body with all the segments finely, moderately closely punctate.

Nagasaki, 22nd February, 1881; two examples.

This may be placed near the European *H. nigra*, to which it is not, however, at all closely allied; if the remarkable thoracic depression be sexual, the two examples are no doubt males, but there is no peculiar structure of the hind body to indicate this.

Homalota lutulenta, n. sp.

Parva, rufula, antennarum basi, thorace, elytris pedibusque testaceis; antennis extrorsum, capite abdominaeque ante apicem fuscescentibus; crebre punctata, abdomine fortiter acuminato, crebrius conspicueque setosello.
Long. 2½ millim.

Antennae short and rather stout, thicker externally, third joint rather shorter than the second, fifth to tenth joints transverse, the last of them rather strongly so; terminal joint about as long as the two preceding together. Thorax convex, rounded at the sides and base, and narrowed in front, bright yellowish red, finely punctate, rather feebly transverse. Elytra slightly longer than the thorax, coloured like it, rather more closely punctate. Hind body very acuminate, rather closely punctate, evidently pubescent, and with the exerted setae very distinct.

Yokohama and Nagasaki.

This is one of the species with most strongly acuminate hind body; it may be easily distinguished from the equally bright-coloured *H. vivida* by its smaller size, thicker antennae, and more closely punctate hind body.

Homalota oligotinula, n. sp.

Parva, brevis, subdepressa, testaceo-ferruginea, pedibus flavis; subtilissime punctulato; antennis brevibus, crassis.
Long. 2 millim.

Antennae stout, very short, thicker externally; fourth to
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tenth joints transverse, the tenth quite twice as broad as long. Head stout, about half as broad as the elytra. Thorax quite twice as broad as long, base and sides greatly rounded, the surface without depressions, scarcely visibly punctate. Elytra a little longer than the thorax, very minutely punctate. Hind body shining, almost impunctate, narrower behind.

Suyayama and Kumamoto; two specimens.

Homalota gyrophænula, n. sp.

Brevis, subdepressa, rufo-testacea; antennis extrorsum, pectore abdominisque segmentis 4^o-6^o nigricantibus; elytris fusco-testaceis; antennis brevibus, apicem versus crassioribus.
Long. 2 millim.

Antennae very short, third joint small, fifth much broader than the fourth, fifth to tenth transverse, the last of them strongly so; terminal joint short, obtuse. Head small, about half as broad as the elytra. Thorax strongly transverse, quite twice as broad as long; base strongly rounded, surface even, delicately pubescent, scarcely visibly punctate. Elytra longer than the thorax, very finely punctate. Hind body broad and short, finely punctate.

Thectura armata, n. sp.

Elongata, angusta, parallela, depresso, nigra; elytris fuscis; antennis, palpis pedibusque testaceis; capite fortiter punctato, thorace medio longitudinaliter impresso.
Long. 2½ millim.

Antennae short and rather stout, reddish, outwardly more obscure, fifth to tenth joints transverse. Head subquadrate, slightly narrower than the thorax, rather closely and coarsely punctate. Thorax feebly transverse, very finely punctate. Elytra longer than the thorax, very finely punctate. Hind body narrow and elongate, very obsoletely punctate. In the male the last dorsal plate is armed in the middle behind with a projection, close to which on each side there is a fine spine; the outside of the hind margin has a long conspicuous spine.

This differs from *T. cuspidata* in the male characters and is of larger size.

Falagria myrmecophila, n. sp.

Brunnea, antennis pedibusque testaceis, dense subtiliter punctata,

subopaca; antennis crassiusculis; thorace profunde canaliculato, scutello simplice.
Long. 8 millim.

Antennae stout, fourth to tenth joints transverse. Thorax nearly as long as broad, narrower than the elytra, much narrowed behind, closely and finely punctate, deeply canaliculate from the front to near the base, where the channel expands into a fovea. Elytra a little longer than the thorax, a little narrowed at the shoulders, densely punctate; scutellum densely punctate. Hind body a little narrower towards the base, densely punctate, the basal segments slightly paler than the others.

Kashiwagi, Nara, Sheba, Shimonosuwa, Bukenji, Sapporo.

This is closely allied to *F. thoracica*, but it is rather larger and of a nearly uniform brown colour, the antennae are considerably thicker, and the punctuation is denser. Like the European species it inhabits the nests of ants in trees.

Falagria sulcata.

Staphylinus sulcatus, Payk. Mon. Staph. Suec. p. 32.

Yokohama and Hakodate.

[To be continued.]

XXXVII.—Notes on the Palaeozoic Bivalved Entomostraca.—

No. XXVI. On some new Devonian Ostracoda. By Prof. T. RUPERT JONES, F.R.S., F.G.S. With a Note on their Geological Position, by the Rev. G. F. WHIDBORNE, M.A., F.G.S.

[Plate XI.]

I.

THE new Ostracodous genus herein described is founded on numerous specimens discovered by the Rev. G. F. Whidborne, F.G.S., in a Devonian Limestone at Daddy-Hole Cove, near Torquay, Devonshire.

KYAMODES, gen. nov.

Carapace bivalved, subconvex; dorsal edge straight, ven-
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width of the cephalothorax at the caput 2.25; width of cephalothorax from margin to margin across the middle 3.5 millim.; length of palps 2 millim. Both palps are represented by rather thin lines, showing slight marks of joints, and on one palp is a suggestion of a terminal bulb which might indicate it to be a young male.

The caput and median part of the cephalothorax as viewed from the cast are well elevated and defined; the cephalothorax narrows towards the abdomen. But in the original

Fig. 1.



Fig. 2.



Fig. 1.—*Eoatypus Woodwardii*, × 4.

Fig. 2.—Ditto, × 4. Outline side view of body.

impression in the rock and less distinctly on the casts there appear outlines on either side of the margin of the cephalothorax, as though by pressure those parts had been flattened, and only the caput and a part of the dorsum of the cephalothorax along the median line had withstood the pressure and had been pushed upward into the matrix by the same. These outlines are visible, but not so distinct in the plaster cast. It is at this point that one experiences difficulty in determining whether the specimen is related to *Attus* or to *Atypus*. If the broader marginal markings are impressions of the original cephalothorax, the inference would be that the spider represented by this fossil belonged to the *Atypinae*. That such is the case I am strongly inclined to believe, both on the ground just named and the characteristics of the mandibles, as well as the general facies of the impression and cast (see fig. 1)*. In the absence of the characteristic eyes

* This figure has been drawn from the cast and compared carefully with one kindly made for me in the Geological Department of the British Museum, and furnished by the Keeper, Dr. Woodward.

and long, jointed, superior spinners it would be impossible to relegate the specimen to the genus *Astypus* with absolute authority. Neither would one be warranted in characterizing a new genus by the absence of eyes and spinners, since these organs were doubtless present, but have simply failed to impress themselves upon the matrix. I have therefore felt compelled on the one hand to propose a new generic place for this fossil, and on the other to present no sharply defined generic characteristics. Indeed, it must be admitted that besides expressing the general facies of the fossil, as above described, the generic value of the name *Ecotypus* consists largely in assigning the specimen rank as a fossil spider.

On one side portions of all the four legs are preserved, the first three showing the articulations at the trochanter, femur, and patella. The second leg shows also the patella entire, indicating the articulation with the metatarsus. On the other side a portion of the femur of the first leg is shown with the patella and its articulations. Both hind legs are represented by the apical parts of the femora.

The horizon from which this new fossil was obtained is that from which most European fossil spiders have been taken, viz. the Eocene Tertiary. It is also that from which have come our American Araneid fossils as recently studied by Mr. S. H. Scudder from specimens collected at Florissant, Colorado.

L.—*The Staphylinidae of Japan.*
By Dr. D. SHARP.

[Continued from p. 365.]

Tachyusa coarctata.

Tachyusa coarctata, Er. K&F. Mark-Brand. i. p. 308.

Apparently a common species in the Japanese archipelago, and found by Mr. Lewis as far north as Hakodate. The species is very variable in Japan as well as in Europe.

Xenusia rufescens.

Tachyusa rufescens, Sharp. Trans. Ent. Soc. Lond. 1874, p. 11.

The genus *Xenusia*, recently established by Rey for a part

of *Tachyusa*, appears to be a valid one, and we have two species of it in Japan. Fauvel thinks it the same as *Myrmecopora*, Saulcy, but this appears to me very doubtful. *T. algarum* is also a *Xenusia*.

ECTOLABRUS, nov. gen.

Corpus sat latum, posterius acuminatum, fortiter punctatum, pubescens, thorace transverso, anterior rotundato, posterior bisinuato. Antennae sat graciles, laxae articulatæ. Palpi maxillares articulo ultimo sat elongato, gracillimo, præcedente gracili, latitudine plus duplo longiore. Genæ marginatæ. Prosternum brevissimum. Coxæ intermedie subcontiguæ, mesosterno inter eas processum elongatum tenue, tenuiter carinatum formante. Pedes graciles; tarsi anteriores 4-articulati, intermedii et posteriores 5-articulati; posteriorum articulo basali secundo haud duplo longiore.

The insect for which I establish this genus is in appearance somewhat intermediate between *Homocusa* and *Dinarda*. None of the examples brought back by Mr. Lewis are in good preservation, and the structure of the tarsi has not been very clearly perceived by me; but I feel pretty sure that the intermediate feet are five-jointed.

Ectolabus laticollis, n. sp.

Fusco-niger, haud nitidus, prothoracis marginibus elytrisque ferrugineis; antennarum basi pedibusque rufis; fortiter punctatus; thorace valde transverso, elytris paulo latiore, angulis posterioribus acutis.

Long. 4 millim.

Antennæ with the three basal joints yellow, the others darker; third joint a little longer than second, fourth to tenth each a little broader than its predecessor, the fourth longer than broad, seventh to tenth each transverse. Head broad and short, scarcely half as broad as the thorax, closely and coarsely punctate. Thorax twice as broad as long, sides rounded and narrowed in front, the base rounded in the middle, nearly concealing the scutellum, the hind angles slightly acute, the surface closely and coarsely punctate, with a vague depression in front of the base in the middle. Elytra a little longer than the thorax, roughly punctate, hind margin deeply sinuate on each side. Hind body acuminate behind, moderately closely punctate and pubescent, beneath densely pubescent.

Miyano-shita and Nikko; main island.

Group BOLITOCCHARINA.

Autalia rufula, n. sp.

Rufula, tenuiter pubescens; abdomine ante apicem nigro; thorace tricaniculato.
Long. 2½ millim.

Antennae rather slender, third joint shorter than the second, penultimate joints slightly transverse. Head almost impunctate, neck slender. Thorax small, only half as broad as the elytra, about as long as broad, with a deep channel on the middle in front and with a lateral channel or depression on each side, these latter convergent behind. Elytra elongate, deeply marked at the base with four depressions.

Nagasaki, in March; four examples.

This minute insect is not one half the size of its European congener *A. impressa*, to which, however, it appears to be rather closely allied in other respects.

Bolitochara varipes, n. sp.

Nitida, picea, abdomine basi rufo, nigro-variegato; antennis basi pedibusque testaceis, femoribus fuscis; subtiliter punctulata, elytris crebrius fortiusque punctatis.
Long. 4 millim.

Antennae thicker externally, second and third joints equal in length, fourth and fifth each about as long as broad, sixth to tenth transverse, terminal joint stout, obtuse, longer than the two preceding together, its extremity paler. Head very feebly punctate. Thorax considerably narrower than the elytra, not quite so long as broad, feebly punctate, shining, with a very distinct fovea in front of the base in the middle. Elytra much longer than the thorax, closely and coarsely punctate, the humeral angle reddish. Hind body shining, almost impunctate, varied with red and black, the red predominating on the basal, the black on the apical segments. Legs yellow, the middle and hind femora infuscate.

Kashiwagi, June 22nd, 1881; two specimens.

Leptusa impressicollis, n. sp.

Minus elongata, subdepressa, rufo-ferruginea, capite fusco, pedibus testaceis; prothorace fortiter transverso, basin versus longitudinaliter bimpresso.
Long. 2½ millim.

Antennae short, thicker externally, fourth joint small, fifth to tenth transverse, the last of them strongly so. Head nearly black, dull, obsolete, moderately closely, rather coarsely punctate. Thorax rather narrower than the elytra, twice as broad as long, rather coarsely punctate, with two rather indefinite impressions on the middle near the base. Elytra short, a little broader and a little longer than the elytra, moderately closely granulo-punctate, somewhat shining. Hind body shining, the basal segments sparingly punctate, the apical nearly impunctate.

Yokohama and Nagasaki in early spring; found under the bark of fir-trees.

Tachysida velox, n. sp.

Elongata, angustula, rufo-brunnea; abdomine ante apicem picescente; antennis pedibusque rufis; opaca, densissime subtiliter punctata; prothorace vix transverso, basin versus angustato.
Long. 5 millim.

Antennae elongate, rather stout, third joint slightly longer than the second, fourth to tenth each slightly longer than its predecessor, the tenth slightly transverse, terminal joint acuminate, not so long as the two preceding together; palpi slender. Head elongate, narrowed behind, much narrower than the thorax, extremely densely and finely punctured, quite dull. Thorax about as broad as the elytra, nearly as long as broad, very densely and extremely finely punctured, quite dull, much narrower at the base than in the middle. Elytra scarcely longer than the thorax, densely and finely punctured, dull. Hind body elongate and slender, rather shining, finely punctate. Legs elongate. Tarsi long and slender, the basal and the apical joint each very long. Male with a short carina or elongate tubercle on each of the terminal and penultimate dorsal plates.

Kashiwagi, June 1881; two specimens.

Silusa rugosa, n. sp.

Rufa, opaca, fortiter dense punctata; abdomine nitido, ante apicem nigro; elytris fortiter granulatis.
Long. 8 millim.

Antennae rather short, thicker externally, third joint slightly shorter than the second, sixth to tenth joints transverse. Head extremely densely punctured, quite dull. Thorax strongly transverse, slightly narrower than the elytra, the

sides rounded in front, considerably narrowed behind, coarsely, extremely densely punctured, quite dull. Elytra short, but distinctly longer than the thorax, very coarsely and densely punctured, so that the surface appears to be granulate. Hind body with the basal segments rather closely punctured, the apical nearly impunctate. Legs rather short. Male with a fine carina on the middle of the terminal and penultimate dorsal plates.

Nagasaki, in early spring.

I have not been able to see the labial palpi in this and the allied insects, all of which appear to be rare, and I cannot say whether they are two-jointed or three-jointed; if the latter be the case, this insect would be placed in *Bolitochara*; but I think it will prove to be more nearly allied to *Silusa* (*Stenusa*) *rubra*.

Silusa rorida, n. sp.

Rufa-nigra, opaca, densissime punctata, abdomine basi rufo; antennis fusco-testaceis, tarsis testaceis; pube albida vestita, praesertim in capite densa.
Long. 2½ millim.

Antennae rather short and slender, first joint infuscate yellow, second and third paler, fourth to tenth fuscous, terminal joint short, a little paler than the preceding, tenth transverse. Head extremely densely punctured, quite dull. Thorax a little narrower than the elytra, rather strongly transverse, much narrowed behind, like the head excessively densely punctate and quite dull. Elytra a good deal longer than the thorax, quite dull, densely covered with finely rugose-granular sculpture. Hind body very sparingly punctured, shining. Legs nearly black, with the tarsi pale.

Oyama; one specimen.

Closely allied to *S. rugosa*, but smaller, darker in colour, with more slender antennae and less coarse sculpture.

Silusa punctipennis, n. sp.

Rufa-nigra, capite thoraceque densissime punctatis, opacis; elytris fortiter punctatis, subnitidis; abdomine basi sanguineo; antennis rufa, pedibus picis.
Long. 3 millim.

Antennae rather short and slender, thicker externally. Head much narrower than the thorax, extremely densely punctured, quite dull. Thorax rather strongly transverse,

distinctly narrowed behind, very densely rugose-punctate, quite dull. Elytra rather longer than the thorax, densely and coarsely punctate. Hind body shining, rather closely punctate.

Nikko; one specimen.

Though allied to the preceding two species by the sculpture of the head and thorax, this differs by the more normal sculpture of the elytra; it is more like a *Bolitochara* in appearance than are the other two species.

Silusa conferta, n. sp.

Subdepressa, fusco-rufa, densissimo subtiliter punctata; abdomine parce punctato, nitido; antennarum basi, elytrorum marginibus pedibusque rufo-testaceis, abdomine ante apicem nigro.
Long. 2½ millim.

Antennae short, moderately stout, thicker externally, fifth to tenth joints transverse. Head a little narrower than the thorax, extremely densely punctured, dull. Thorax rather strongly transverse, a little narrowed behind, extremely densely, rather finely punctate, quite dull. Elytra considerably longer than the thorax, densely punctate, not quite dull, the punctuation being coarser than that of the head and thorax; the hind margins and shoulders are more distinctly rufescent than the other parts. Hind body very sparingly punctured, basal segments rufescent, the others black; legs sordid yellow.

Miyanoshita; two specimens, in bad preservation.

In this species I have been able to get a rather unsatisfactory view of the labial palpi; they are apparently slender and elongate, only two-jointed. *S. conferta* is distinguished from the preceding species by the more depressed form and finer sculpture.

Silusa crassicornis, n. sp.

Minus depressa, rufo-testacea, abdomine ante apicem fuscocincta; antennis articulis 4^a-10^a fuscocinctibus; capite thoraceque densissime punctatis, opacis, hoc fortiter transverso, basin versus angustato.
Long. 2½ millim.

Antennae rather stout, second and third joints equal, sixth to tenth transverse, terminal joint elongate and paler in colour than those preceding it. Head much narrower than the elytra, very densely punctate. Thorax twice as broad as long, its punctuation like that of the head. Elytra short and

broad, rather longer than the thorax, rather roughly and coarsely punctate. Hind body convex and setose beneath, flat and shining above, sparingly punctate.

Yokohama; two specimens.

In this species the basal joint of the hind tarsus is as long as the two following together and the middle coxæ are rather more distant than in the previous species; the labial palpi, so far as I can gather from an imperfect view, are of the *Silusa* type of construction.

Silusa lanuginosa, n. sp.

Nigra, pubescens; antennis, pedibus, elytris abdominisque basi et apice rufis; thorace transverso, basi in medio impresso; abdomine parce punctato.

Long. 4 millim.

Antennæ moderately long and stout, third joint equal to second, fifth to tenth differing little from one another, each transverse, terminal joint quite twice as long as the tenth. Head finely punctate. Thorax slightly narrower than the elytra, twice as broad as long, not narrowed behind, closely and rather finely punctate, very distinctly pubescent, with a transverse impression in front of the base in the middle; in colour red suffused with black. Elytra a good deal longer than the thorax, closely and somewhat coarsely punctate. Hind body finely and sparingly punctate. Male with an extremely fine crenulation of the hind margin of the last dorsal plate.

Nagasaki, 16th February, 1881; three specimens.

This is a true *Silusa* with the labial palpi elongate and rigid.

Placusa infima.

Placusa infima, Er. Gen. et Spec. Staph. p. 196.

Nagasaki, in March and April.

The specimens are in very bad condition, and there is no male in which the characters can be seen, so that the determination is doubtful; if not *P. infima*, the species is no doubt new.

Epipeda granigera, n. sp.

Piceo-ferruginea, capite, thorace elytrisque tenuissime punctatis, opacis, abdomine punctato, nitido, pedibus flavis; prothorace subquadrato, medio vage depresso.

Long. 2½ millim.

Antennæ short and stout, red at the base, darker beyond, third joint a little shorter than the second, fifth to tenth joints strongly transverse, terminal joint elongate, acuminate, nearly three times as long as the tenth. Head much narrowed behind the prominent eyes, densely punctate, quite dull. Thorax narrower than the elytra, not so long as broad, very densely covered with a granular sculpture, and broadly vaguely depressed along the middle. Elytra scarcely longer than the thorax, sculptured like it, but not quite so dull. Hind body finely punctate, the terminal segments almost impunctate.

Nagasaki, 16th March, 1881; one specimen.

Epipeda fraterna, n. sp.

Valde depressa, nigra; elytris fuscis, pedibus sordide testaceis; subtiliter punctata, subopaca; prothorace plano, medio vix perspicue impresso.

Long. 2½ millim.

This obscure little insect is in all respects very similar to the common European *E. plana*, but is apparently a little smaller and narrower, and the male characters are not sufficiently similar to allow it to be considered a mere variety. In this sex the raised processes on the last dorsal plate are more distinct and enclose a much wider space, and each projects beyond the hind margin, so as to form a short, acute, free spine; the hind margin in the middle is rounded, and there is a slight emargination on each side close to the spine.

Miyanoshita, December 22nd, 1880; five specimens.

Epipeda Lewisia.

Homalota Lewisia, Sharp, Trans. Ent. Soc. Lond. 1874, p. 14.

Brachida clara.

Homalota (Brachida) clara, Weise, Deutsche ent. Zeitschr. xxi. 1877, p. 90.

Hagi (*Hiller*); Yokohama, Nagasaki, and Hitoyoshi, in spring, rare (*Lewis*).

Gyrophana triquetra.

Gyrophana triquetra, Weise, Deutsche ent. Zeitschr. xxi. 1887, p. 91.

Gyrophana sapporensis, n. sp.

Brevis, subdepressa, fusca, capite abdomineque nigricantibus; an-

tennis pedibusque flavis; elytris fulvis, margine exteriori nigro; thorace parvisime punctato, elytris parce subtiliterque granulatis. Long. $2\frac{1}{2}$ millim.

Antennae short, clear yellow, fourth joint small, fifth to tenth similar to one another, each transverse. Head broad and short, almost impunctate. Thorax strongly transverse, narrower than the elytra, with three or four punctures on each side of the middle, forming an irregular series. Elytra a little longer than the thorax, bearing distant, minute, flattened granules. Hind body very finely and distantly punctate. In the male there is a series of very minute granules extending across the penultimate dorsal plate just in front of the hind margin; the terminal plate bears some coarser flat granulations irregularly placed, and its hind margin forms a triangular prominence.

Sapporo; three specimens.

In addition to these two species Mr. Lewis's collection contains a third *Gyrophana* of very pallid colour; but the examples are not in a fit condition for examination.

Myllana japonica, n. sp.

Elongata, angusta, omnino subtilissime punctulata, opaca, fuscoperruginea; antennis palpis pedibusque testaceis; thorace transverso, basi utriusque leviter sinuato; elytris illo paulo longioribus.

Long. $3\frac{1}{2}$ millim.

Antennae very slender, scarcely any thicker externally, tenth joint much longer than broad. Head about half as broad as the elytra. Thorax nearly twice as broad as long, convex transversely, much narrowed in front, the punctuation excessively minute, the base a little sinuate on each side near the hind angles, these rectangular.

Nagasaki and Miyazoshita, in April and May.

This is similar in size and colour to the European *M. elongata*, Rey, but has more slender antennae, and its thorax more transverse and distinctly sinuate at the base on each side.

Group OLIGOTINA.

PROTINODES, nov. gen.

Tarsi omnes breves, quadriarticulati, posteriores articulo basali brevissimo; antennae 11-articulatae; coxae intermediae fere contiguae.

The number of genera of Aleocharidae with only four joints to the posterior tarsi is so small that the above characters are sufficient at present for the identification of the insect from which they are taken. It is of short convex form, somewhat intermediate in appearance between *Brachida* and *Oligota*. The maxillary palpi are small and short, the sides of the prothorax are very acutely inflexed, and the front coxae are oblique, rather perpendicular in direction; the mesosternum is produced between the middle coxae, forming a process very slender at the extremity and touching the raised margin on the front of the metasternum, which forms an angle immediately behind the coxae without being produced between them. The basal joint of the hind tarsus is extremely short, projecting but little beyond the apex of the tibia; the second and third joints are short and equal, the fourth joint is longer than the other three together, and has beneath an excision giving rise in certain positions to an appearance of its forming two joints.

In an arrangement of the Aleocharidae where predominance is given to the tarsal structure, the genus will be placed at the commencement of the Oligotina.

Protinodes puncticollis, n. sp.

Brevis, convexus, dilute rufus, brevissime pubescens; thorace elytrisque fortiter punctatis, abdomine subtiliter punctato.

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

Antennae rather short, not stout, fourth joint small, very much smaller than the fifth, fifth to tenth differing little from one another in length, each a little broader than its predecessor, tenth about as long as broad, terminal joint longer than the tenth. Head small, with convex eyes, densely and coarsely punctate. Thorax strongly transverse, short at the sides, the base greatly rounded, the surface closely and coarsely punctured. Elytra rather longer than the thorax, coarsely punctate, rather shining. Hind body short, convex beneath, the upper surface finely and rather indistinctly punctured, the penultimate segments vaguely darker in colour.

Tokio; three very mutilated specimens.

Subfam. TACHYPORINAE.

This subfamily proves to be extremely well represented in Japan, and the fauna is in this respect more similar to that of North America than to that of Europe.