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XX.—On the Japanese Cleridæ

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breadth 5·7; interparietal, length 5·2, breadth 9·6; length of anterior zygoma-root 4; palate length 17·8; diastema 9·8; length of upper molar-series 4·7; breadth of $\frac{m}{1}$ 1·4; breadth of palate inside $\frac{m}{1}$ (c.) 3·3.

Hab. Ankober River, Wasa, Ashantee.

The type specimen (B. M. 82. 6. 12. 5) of this beautiful and interesting little species was obtained by the well-known explorers Capt. (later Sir Richard) Burton (after whom I have named it) and Lieut. V. Lovett Cameron, during an expedition to the Gold Coast in 1882.

The only species with which the present one could be confounded is *Mus erythroleucus*, Temm., and that only because its mammary formula and detailed characters have not hitherto been published. Thanks, however, to the kindness of Dr. Jentink, of the Leyden Museum, I have had the opportunity of examining the type and of directly comparing its skull with some of the Museum specimens. This type I have been able to match in every respect with some spirit specimens from Akropong, on the Gold Coast, presented to us by Prof. Rutimeyer in 1886. These show that *M. erythroleucus* is one of the multimammate species allied to *M. natalensis*, *coucha*, &c., and that it has, as is indeed shown by the type itself, a hallux which falls far short of the base of the second toe and a fifth hind toe that only just attains to the base of the fourth; the tail also is slightly shorter than the head and body.

XX.—On the Japanese Cleridæ.

By G. LEWIS, F.L.S.

THE list of species in the family Cleridæ I am able to give from Japan is not a long one, and it seems probable that my acquisitions in the family exhibit my collection in its weakest part. Some of the species obtained were apparently very local, and only three of the genera, leaving out *Necrobia*, contain more than one species; and this is a condition of things not likely to be maintained in any tropical or subtropical fauna. There is evidence also that the abodes of some of the species are in the highest branches of the decaying forest-trees, whose leafless and partly barkless limbs stretch out above the foliage of the accessible brushwood. These of course are difficult to obtain, and it is only the detached single examples from such places that the collector fortuitously sweeps into a net from the lower foliage.

The Cleridæ also in the adult stage are, like the Erotylidæ and other families, very short-lived, and it is not often an entomologist happens to be near their centre of emergence at the opportune moment. Two such chances, however, occurred to me in Japan. Once I saw *Tillus* in profusion at Nagasaki on some brushes covered with blight; but whether they were attracted by the larvæ of *Coccinella*, which came also, or by the Aphidæ I am unable to say. At another time I saw *Stigmatium* in similar plenty, feeding on a species of *Tomicus* which was busy drilling holes in the stems of a dead and tangled mass of the *Wistaria*. The Cleridæ as a family are predaceous.

For the convenience of students of the Japanese fauna I have divided the species into two sections, which seems from the material in hand to be a natural division, as each one possesses conspicuous characteristics in tarsal structure and dorsal punctuation. I have also been obliged, somewhat unwillingly, to establish several new genera.

List of Species, arranged generically.

Spinoza cærulea.	Necrobia ruficollis, <i>F.</i>
<i>Tillus</i> notatus, <i>Klug.</i>	Corynetes cæruleus, <i>De Geer.</i>
Cladiscus obeliscus.	Opetiopalpus morulus, <i>Kiesenw.</i>
Opilo carinatus.	Tenerus cyaneus.
— niponicus.	— maculicollis.
Thanasimus nigricollis.	— higonius.
— albomaculatus.	— Hilleri, <i>Harold.</i>
Omadius nigromaculatus.	Thaneroclerus aino.
Stigmatium pilosellum, <i>Kiesenw.</i>	Neoclerus ornatus.
Tarsostenus univittatus, <i>Rossi.</i>	Isoclerus pictus.
Necrobia rufipes, <i>De Geer.</i>	Lycosoma parallelum.
— violaceus, <i>L.</i>	

The fifteen species which are given precedence in this paper have the punctuation of the elytra arranged in longitudinal lines, and all the tarsal joints are more or less elongate.

SPINOZA, gen. nov.

Cylindrical; head subtransverse, less in width than the thorax; eyes prominent, coarsely granulate, circular in outline; palpi, last joint greatly enlarged, flat on either surface, lobe-shaped. Antennæ, first joint bulbiform anteriorly, constricted at base; second smaller and shorter, not constricted; third rather elongate-cylindrical; fourth and fifth stouter and together measuring slightly more than the third; sixth to eighth moniliform and coequal; ninth to eleventh form a lax club; terminal joint oval. Tarsi rather long and in size equal on each tibia; claws with a strong interior process stouter and nearly as long as the claw itself. The elytra are nearly

four times the length and as wide again as the thorax, and have ten striæ composed of regular punctures.

This genus may be placed close to *Cymatodera*, and it has been named after Baruch de Spinoza.

Spinoza cærulea, sp. n.

Cylindrica, hirsuta, subcærulea, nitida; elytris fortiter striato-punctatis; antennis pedibusque corpore concoloribus.

L. $5\frac{1}{4}$ mill.

Head shining, very sparsely punctured, with two shallow foveæ between the eyes; the thorax is clothed with long greyish hairs, little uneven and nearly impunctate, slightly constricted at the sides behind the coxæ. The elytra are clothed with similar hairs; the punctures consist of ten rows, clear and regular at the bases, somewhat evanescent towards and at the apices. The claws and their inner processes are pale.

Hab. Main island; Kashiwagi, June 15th, 1881.

Tillus notatus, Klug, 1842.

Tillus Lewisii, Kiesenw. 1879.

Hab. Kiushiu.

This is the species spoken of in the preamble; and Mr. Gorham, having lately examined a series with many varieties from Assam and Burma, has been able to settle the synonymy for me, and has kindly done so.

Cladiscus obeliscus, sp. n.

Cylindricus, parallelus; capite elytrisq. totis nigris; thorace rufo.

L. $6-7\frac{1}{2}$ mill.

Cylindrical, parallel; the antennæ black, with two basal joints usually red; the last are cylindrical; joints 4-10 are triangular, being slightly dilated on the inner edge; the head wider than the thorax, sparsely punctulate, eyes prominent; the thorax widest behind the neck, very much constricted behind the coxæ, punctured like the head; the elytra strongly punctate-striate for three quarters of their length, punctures then abruptly evanescent to the apex; the legs are black, with the claws infusate; the anterior and intermediate coxæ red.

The species was formerly assigned by Kiesenwetter to *C. strangulatus*, Chevr., an insect from the Philippine Islands; but Chevrolat's species has pectinated joints in the antennæ, while in *C. obeliscus* the corresponding joints are

simply triangulate in both sexes. In colour the species are similar.

Hab. Kiushiu and main island. This insect appears towards the end of July. Nagasaki, Maiyasan near Kobé, and Fukushima are special localities for it.

Opilo carinatus, sp. n.

Elongatus, rufo-brunneus, pubescens; capite rugose punctato; thorace in medio carinato; elytris striato-punctatis, in medio obscure luteo-fasciatis.

L. 12-13 mill.

Elongate, reddish brown, the head impressed between the eyes, rugosely, rather coarsely, and densely punctate; the thorax similarly punctured, with a depression in the middle; the centre of the depression has a smooth longitudinal carina; the elytra are distinctly striate-punctate, with apex, median fascia, and humeral angles pale; the dark portion, which corresponds to the darkened disk in the next species, is strongly produced anteriorly between the second and third striæ from the suture, and also posteriorly along the edges of the suture.

Hab. Kiushiu. I obtained this species in the southern island only.

Opilo niponicus, sp. n.

Elongatus, rufo-brunneus, pubescens; antennis pedibusque corpore concoloribus; capite tenuiter punctato; elytris striato-punctatis vel obsolete punctatis.

L. 9-11 mill.

Elongate, reddish brown, little shining; the head and thorax lightly and somewhat rugosely punctured, feebly impressed in the centre; the elytra somewhat faintly striate-punctate at the base, the striæ being evanescent for one third of the wing before the apex (in some specimens the striæ are obsolete throughout). The colour of the elytra is very variable; the pattern is never defined as in *O. mollis*, L., but usually there is a dark sutural disk before the apex, and two pale marks in front of it on each elytron placed longitudinally near the suture; the apex is always broadly pale.

The more important differences between this species and *O. mollis*, L., are that the thorax is much less punctate, the antennæ longer, with the club more lax, and the elytral striæ much less defined, while the pattern formed by the coloration is very variable and often diffused.

Hab. In the northern islands.

Thanasimus nigricollis, sp. n.

Elongatus, niger, cinereo-pilosus, nitidus; elytris basali late rufis, postice fasciis duabus albis; abdomine rufo; antennis pedibusque nigris.

L. 8-9 mill.

T. nigricollis is in many respects similar to *T. formicarius*, L. The points of difference are that it is larger, with much longer tarsi, head and thorax more robust and more lightly and less thickly punctured, with the anterior portion of the thorax much wider. The elytra also are red to nearly one third of their length, and are then crossed with a very narrow white band; the dorsal black band is wider and the abdomen a clear red.

Hab. All the islands. Under pine-bark on Oyayama, Omine, Nantaisan at high altitudes, and at Sapporo at about sea-level.

Thanasimus albomaculatus, sp. n.

Elongatus, niger, hirsutus, nitidus; elytris griseo-pilosis, prope basin et pone medium albo subrecto-fasciatis; antennis articulis 1^o-6^m rufis; pedibus piceis.

L. 3½ mill.

This small species is very similar to *T. anthicoides*, Westw., figured in the Proc. Zool. Soc. 1852, but it is larger and the antennæ are relatively longer; the two basal fasciæ are more transverse. The head and thorax are clothed with black, and the elytra with grey, hairs; the first six joints of the antennæ are red, the others black except the apex of the last joint, which is pale.

I found a similar species to the above in Ceylon, and I think it and the above with *T. anthicoides*, Westw., might be separated generically from *Thanasimus*; but as I am only studying the family from a faunistic standpoint, I have left this to be done if necessary by a future monographer of the family.

Hab. Kiushiu. I obtained four examples in Higo.

Omadius nigromaculatus, sp. n.

Infuscatus, dense griseo-pilosus; elytris nigro-maculatis; abdomine rufo; antennis (basi excepta) nigris, tarsis rufo-brunneis.

L. 11-12 mill.

Infusate, densely pilose, pile generally grey, but golden between the eyes; the two basal joints of the antennæ are pale, the rest nearly black; the thorax dark and immaculate; the elytra, basal half or nearly half grey, with two black spots placed transversely in the grey area, the outer spot

being sometimes confluent with an epipleural black patch; behind the grey area is a broad, densely black band, which is followed by an apical grey area, in the centre of which are two well-defined black spots, one in the middle of each elytron. The legs vary in colour, but the tarsi are reddish brown and the fore legs generally palish with their upper edge blackish; the abdomen wholly reddish brown.

This species closely approaches *O. nigropunctatus*, Chevr., in many of its characters.

Hab. Kiushiu. Six examples in Higo; and I have little doubt but that it occurs only in the subtropical portions of Japan.

Stigmatium pilosellum.

Clerus pilosellus, Kiesenw. 1879, = *Thanasimus pilosellus*, Gorham, 1878.

The species is a typical *Stigmatium*.

Hab. Kiushiu, at Nagasaki and Konose.

Tarsostenus univittatus, Rossi.

Hab. Kiushiu. I observed this insect once in abundance on the rafters of an old cottage at Ipongi, near Nagasaki. I believe this species has only been recorded from Europe until recent years; but there are specimens in the Museum from Natal, Ceylon, and South Australia.

Necrobia rufipes, De Geer.

Hab. Kiushiu. A single example was found in carrion at Nagasaki.

Necrobia violaceus, L.

Hab. All the islands.

Necrobia ruficollis, F.

Hab. Frequent in all the towns and in the larders of steamers calling at the ports.

Corynetes cæruleus, De Geer.

Hab. Generally distributed in all the islands.

Opetiopalpus morulus, Kiesenw.

This insect is more parallel than *obesus*, White, and the head is narrower and more deeply punctured and is black. The antennæ also are only red at the base. I have placed an example by the side of White's type in the Museum.

Hab. Kiushiu. At Ipongi, near Nagasaki, by beating the thatch on old cottages in June and July.

In the eight species which follow the punctuation of the elytra is thickset, without lineal arrangement, and the basal joints of the fore tarsi are short and transverse, except in the genus *Tenerus*.

Tenerus cyaneus, sp. n.

Angustatus, cyaneus, griseo-pubescent; antennis nigris; pedibus infuscatis.

L. $5\frac{1}{2}$ mill.

This species is narrower than *maculicollis*, Lew., and is wholly blue above and beneath; but in its general sculpture I cannot find much to distinguish it.

Hab. Kiushiu. Konose, in Higo, one example only.

Tenerus maculicollis, sp. n.

Rufo-testaceus, pubescens; thorace in medio nigro-maculato; elytris griseo-pubescentibus, cyaneis; antennis (basi excepta) nigris; pedibus rufis; metasterno abdomineque infuscatis.

L. 5-6 mill.

Head and thorax clothed with reddish pubescence, red, with the thoracic disk black; the black disk in one example is enlarged before and behind; the elytra are cyaneous, clothed with grey pubescence, more rugosely punctate at the base than at the apex; antennæ, basal joint red, the rest black; the metasternum and the last four segments of the abdomen are infuscate; legs wholly red. Scutellum blue.

This species is smaller than *higonius* and has an important specific character in the colour of its pubescence.

Hab. Kiushiu. Taken at Yuyama, in Higo.

Tenerus higonius, sp. n.

Robustus, rufo-testaceus; antennis nigris; elytris cyaneis nigro-pubescentibus; scutello, antennis pedibusque rufis.

L. $8\frac{1}{2}$ mill.

Much more robust than the preceding species, but in some respects very similar. Head, thorax, legs, and under surface red, except the last three segments of the abdomen, which are blackish; scutellum and basal joint of the antenna red.

The punctuation in the species of this genus does not seem to serve for specific characters, but the colours in the Japanese species seem to be fairly constant.

Hab. Kiushiu, at Yuyama.

Tenerus Hilleri, Harold.*Tenerus Hilleri*, Harold, Deutsch. ent. Zeitschr. 1877, p. 357.*Hab.* Main island. Taken by Herr Hiller at Hagi, in Yamaguchi.*Thaneroclerus aino*, sp. n.

Brunneus, pilosus, vix nitidus; antennis, palpis pedibusque corpore concoloribus; capite thoraceque dense punctatis.

L. $5\frac{1}{2}$ –6 mill.

There are two specimens of a species of this genus in the Museum from Bombay which I consider represent *T. Buqueti*, Lefebvre, and the Japanese species differs from them as follows:—The head is smaller, the thorax more constricted behind, the antennæ very much stouter, club less lax, claws stouter, and the punctuation of the head and thorax is closer and larger, giving an appearance of greater opacity. The punctuation of the elytra is somewhat large and close from the bases to the middle of the dorsal region; towards the apices it becomes smaller and a little scattered, especially near the suture.

Hab. Yezo. Two examples from Junsai, near Hakodate.

NEOCLERUS, gen. nov.

The species of this genus have a similar outline to those of *Thaneroclerus*, but the tarsi and antennæ are very differently constructed, and they are brightly coloured or prettily marked. The head is less wide than the thorax; eyes coarsely granulate, lobe-shaped; palpi short and not dilated; antennæ, first joint somewhat bulbiform anteriorly, base constricted, second to fourth nearly coequal, fifth to eighth moniliform, ninth twice the width of eighth, tenth and eleventh nearly equal in size and form an oval club (in an undescribed Ceylonese species the club is a little lax); the thorax moderately constricted behind the middle; the thighs robust, anterior tarsi with basal joints very short and conspicuously dilated.

Neoclerus ornatulus, sp. n.

Rufo-brunneus, hirsutus; capite thoraceque supra nigris; elytris coccineis, regione scutellari maculisque utrinque duabus nigris; antennis pedibusque rufo-brunneis.

L. $3\frac{3}{4}$ – $4\frac{1}{2}$ mill.

Reddish brown beneath, with legs, palpi, and antennæ con-

colourous; above, head between the eyes, thorax except the anterior margin, and three large spots on each elytron black. The elytra are very bright red, with two semicircular spots at the base behind the scutellum, each one touching the suture; in the middle of the dorsal region are two lobe-shaped spots, each one longer than the two scutellar spots together, well separated at the suture, but externally leave the epipleura alone red; the two posterior black spots are well before the apex, and more transverse than the dorsal pair, and leave only a narrow division of red at the suture.

Hab. Kiushiu, and on the main island. Oyayama, Iken-chaiya, and Nikko, five or six examples.

ISOCLERUS, gen. nov.

Body with an outline resembling *Thanasimus*, but the tarsi agree closely with those of *Thaneroclerus*. The eyes are coarsely granulate, rather prominent, and anteriorly semicircular in outline; the posterior part, which is in some genera cut out, is nearly straight, but the contiguous part of the head is swollen and convex, so that the limit of the eye is only indicated by its granulations. Antennæ, first joint bulbiform, with a short funicle; second and third of equal length, constricted slightly in the basal half; fourth to eighth shorter and moniliform; ninth to eleventh form a lax club; ninth and tenth are equal to each other in length and breadth, the terminal joint being conical and nearly as long as the two preceding joints; femora short and robust, the basal joints of the anterior tarsi are conspicuously dilated and short, claws simple.

Isoclerus pictus, sp. n.

Rufo-brunneus, sparse hirsutus; capite antennisque (basi excepta) nigris; thorace rufo; elytris regione scutellari, macula humerali, fasciis mediis et posticis late nigris; pedibus rufis.

L. $3\frac{3}{4}$ mill.

Elongate, hirsute, rather shining; the head black, rather thickly and somewhat coarsely punctured; the antennæ, two basal joints red, the rest infuscate; the thorax red, with the margin behind the neck black, punctured like the head; the elytra more coarsely punctured than the thorax, black, with two pale fasciæ, one before, the other behind the middle; the first is narrowly connected with humeral angle, which is also pale; this leaves a large circular spot round the scutellum and a

marginal spot black; the second is transverse and very slightly oblique; the legs and tarsi are wholly red.

There is a variety with red antennæ, the thorax wholly red and having the elytral marginal spot obliterated, leaving the space behind the humeral angle pale.

Hab. Main island. Found at Nikko and Chiuzenji in June 1880.

LYCTOSOMA, gen. nov.

Head half the length of the thorax, rounded off at the sides; the eyes small and little prominent, coarsely granulate, semicircular in front, feebly emarginate behind; palpi fusiform. Antennæ half as long again as the head; first joint bulbiform, with an inconspicuous funicle; second stouter and round, breadth equal to length; third to fifth longer and not so robust; sixth to eighth moniliform; ninth to eleventh form a lax club, terminal joint being longer than the tenth and of a short oval form. Thorax parallel at the sides, gradually rounded off behind and before; elytra parallel until just before the apex; the thighs rather robust, anterior tarsi short and transverse, claws with a small inconspicuous process near the base.

This genus may be placed near *Thaneroclerus*, on account of the structure of the antennæ, legs, and tarsi. The species has a certain resemblance to a small specimen of *Lyctus brunneus*, Steph.

Lyctosoma parallelum, sp. n.

Elongatum, parallelum, ferrugineum; antennis pedibusque corpore concoloribus.

L. 3 mill.

Elongate, parallel, wholly ferrugineous, sparingly hirsute; the head sparsely covered with somewhat acicular punctures; the thorax more thickly punctured, punctures oval; the elytra with punctures less deep and more round, but of similar density.

Hab. Kiushiu. Two examples came from under bark near the temple of Suwoyama, at Nagasaki, in the spring of 1881.

A curious species, which I consider belongs to the Telephoridæ, has been described by me and assigned to the genus *Sisynophorus* (Ent. Month. Mag. 1891, p. 210), but perhaps later it will be well to make a new genus for it. I make a note of it here, as some of its allies have been included in the Cleridæ.