

XXXVIII.—On Additions to the Madeiran Coleoptera.

By T. VERNON WOLLASTON, M.A., F.L.S.

[Continued from p. 267.]

Fam. Bostrichidæ.

Genus ENNEADESMUS.

Mulsant, Mém. de l'Acad. de Lyon (2ième série), Scien. i. 208.

The detection of the present genus near Funchal introduces a new family into the Madeiran Catalogue, viz. the *Bostrichidæ*. Perhaps, however, properly, *Rhyzopertha* should also be regarded as a member of it, in which case it should have been long ago acknowledged in our fauna: nevertheless, since that genus is not a very typical exponent of the group, and has likewise many points in common with the *Cissidæ*, I included it in the latter family when compiling the 'Insecta Maderensia.' But now that *Enneadesmus* must be appended to the list, I would regard it, along with *Rhyzopertha*, as representing an additional family—the *Bostrichidæ*. With respect to the structural features of the insect described below, they seem to me to accord with those of *Enneadesmus*, which differs principally from *Xylopertha* (to which it is nearly related) in having its antennæ composed of only nine joints,—one of the five minute ones between the second and the very large, loosely-connected, triarticulate club (and which are so evident in *Psoa*, *Apate*, *Sinoxylon*, *Xylopertha*, and *Bostrichus*) having disappeared. I have a closely allied beetle in my possession, communicated from Milan a few years ago, by the Abbé Stabile, under the title of "*Apate Chevrierii*, Villa," which seems to me to belong to the same genus as the Madeiran one, its antennæ being exactly similar to those of the *E. barbatus*; so that, if it be correctly named, there is apparently some confusion in the recent European catalogues, which assign that species to the genus *Xylopertha*, in which the antennæ are 10-articulate. Be this, however, as it may, the Madeiran insect is certainly different specifically from the Milan one; and I regard it, at any rate, as belonging (for the reason above cited) to Mulsant's *Enneadesmus*. And I may here, perhaps, just add that the two insects described by M. Lucas, in his work on the Coleoptera of Algeria, as "*Xylopertha appendiculata*" and "*humeralis*," require, unless I am mistaken, to have their antennal details again carefully revised; for I cannot but suspect that a joint too many may have been assigned to the antennæ of each of them,—those of the former having, according to the figure, their second articulation divided by a central line in a manner quite unprecedented in any of the allied forms; whilst those of the latter are represented with a *small basal joint*, which is pro-

bably only the rounded commencement of what is there regarded as the second. Should my supposition prove to be correct, it would throw both of these species into the genus *Enneadesmus*, with which in most other respects they (but more especially the *X. humeralis*) appear to agree; whilst, in support of this view, I perceive that the "*Apate Chevrierii*" (which, as already stated, I consider an *Enneadesmus*, and congeneric with the Madeiran insect) has been actually registered in a late Catalogue as a synonym of the "*Xylopertha*" *humeralis*, which makes it still further probable that my suspicion is not altogether groundless.

The feet of *Enneadesmus*, like those of the allied forms above alluded to, are regarded as pentamerous; but the basal joint is so minute, and so closely connected with the second, that it is sometimes scarcely possible to detect it,—if, indeed, in all instances it does really exist. In the Madeiran insect, after mounting the tarsi in Canada balsam for the microscope, I can just recognize this first articulation in the hinder pair; but in the front ones I am scarcely able to satisfy myself of its presence, though, as it is said to exist in all these immediate genera, I conclude that it is there. The tibiæ are more or less denticulated along their outer edge; and the terminal spur, especially on the anterior pair, is very large, broad, and articulated. I have not been able to obtain a type of the *Bostrichus 3-spinosus* of Olivier, for the reception of which the genus *Enneadesmus* was constituted; nevertheless, I assume the Madeiran insect to be distinct from it, as I can detect nothing in its outward structure to warrant the above specific name.

Enneadesmus barbatus, n. sp.

E. cylindricus, rufo-piceus; capite deflexo, ad latera et transversim in fronte (in maribus saltem, et forsan in utroque sexu) longissime barbato; prothorace (præsertim antice) pilis longis erectis paucis adperso, postice nitidissimo minute et parce punctulato, antice mucronibus magnis asperato; elytris piceo-testaceis postice infuscatis, subnitidis, pube demissa brevi flavescente densius vestitis, sat profunde subseriatim punctatis, ad apicem retusis, parte truncata utrinque tuberculo parvo instructa necnon ad suturam in medio elevata divaricata; antennis pedibusque plus minus picescenti-testaceis.

Long. corp. lin. $1\frac{3}{4}$ –2.

Habitat Maderam australem, a Dom. E. Leacock prope Funchal primo detectus; necnon ad "Praia Formosa" pauca specimina cepit Dom. Bewicke.

E. cylindrical, and more or less rufo-piceous. *Head* much deflexed, and with the hinder part (which is concealed beneath the pronotum) longitudinally strigulose; its sides and across its forehead densely tufted (at any rate, in the male sex, if not in

both) with excessively long, porrected, yellowish hairs. *Prothorax* sparingly beset with erect, but much finer and less yellow, hairs; brightly polished behind, where it is most minutely and remotely punctulated, and much roughened in front (especially towards the sides) with coarse tubercles and points. *Elytra* paler at the base (where they are more or less piceo-testaceous) than the head and prothorax; less shining than the hinder part of the prothorax, and more densely clothed with a fine, decumbent, sericeous, yellowish pile; rather deeply subseriate-punctate (the punctures, however, although large, becoming shallower anteriorly); obliquely truncated towards the apex, but not very abruptly so, and with a small tubercle on either side of the truncated portion at about the middle of the margin, and with the suture (particularly in the centre) much elevated and divaricate. *Limbs* more or less piceo-testaceous, the *tibiæ* and antennal club being usually a good deal obscured.

As already stated, the above insect very nearly resembles the species which I have in my collection under the name of "*Apate Chevrierii*, Villa." It is, however, rather larger; and its elytra are more coarsely punctured (especially behind), and have their truncated portion much less abrupt, and the suture very *distinctly* raised only in the centre of this truncation, where, moreover, it is divaricate. A single example of it was detected in Madeira, by Mr. Edmund Leacock, in his garden at the Quinta de São João, near Funchal; several more were shortly afterwards found by Mr. Bewicke amongst old logs of wood in a small shed or out-house, at the Praia Formosa, and I have a specimen (which, however, I have not yet very closely compared with the Madeiran ones) captured by myself in the island of Palma, of the Canaries.

Fam. Cissidæ.

Genus CIs.

Latreille, Précis des Caract. gén. des Ins. 50 (1796).

Cis puncticollis, n. sp.

C. ovato-cylindricus, fusco-niger et breviter setuloso-pubescent; prothorace subopaco minutissime alutaceo (sed haud ruguloso) et dense punctulato (punctulis parvis sed distinctis), necnon ad latera rotundato anguste marginato; elytris subnitidis dense subruguloso-punctatis, apicem versus interdum vix dilutioribus; antennis pedibusque rufo-testaceis.

Long. corp. lin. $\frac{2}{3}$ –1.

Mas, capite distincte bituberculato.

Habitat Maderam, in castanetis supra Funchal a Dom. Bewicke lectus.

C. convex and cylindrical, but just perceptibly more ovate (or

narrowed anteriorly) than the *C. fuscipes*, dark brownish black, and clothed throughout with short, suberect, and rigid cinereous setæ. *Head* obtusely rounded (or subtruncated) anteriorly, and distinctly bitubercled in the males. *Prothorax* about (or perhaps scarcely) as broad as the elytra, with the sides, as well as the anterior and posterior angles, more rounded than in the *C. fuscipes*, a little more regularly produced in front from each anterior angle (which causes the latter to be obtusely rounded off, instead of being a little prominent as in that insect); subopaque and (beneath the microscope) most minutely alutaceous, and regularly and rather densely punctured, the punctures being smaller and deeper than those of the *C. fuscipes*, as well as more regular and better defined (being all equal, and not composed of a double set as in that species); the lateral edges margined, but not so broadly as in the *C. fuscipes*, but the hinder one perhaps rather more evidently (though, at the same time, very delicately); and with the faintest possible indication of a dorsal line, which tends to become a keel behind, but a channel in front. *Elytra* rather less opaque than the prothorax, and not appearing alutaceous when viewed beneath the microscope; also rather more uneven or rugulose, though less so than in the *C. fuscipes*; more closely and deeply punctured than in that insect, but with the same double system of punctures, the larger ones of which have, like the pubescence, a tendency to be disposed in longitudinal rows. *Limbs* rufo-testaceous.

Apart from the many characters to be gathered from the above diagnosis, the present *Cis*, several specimens of which were captured by Mr. Bewicke on the trunk of a decayed Spanish chestnut-tree at the Mount, above Funchal, may be known from its Madeiran ally, the *C. fuscipes*, by its smaller size, darker hue, and shorter setæ, as well as by its somewhat narrower and less margined prothorax, and its different sculpture.

Fam. Tomicidæ.

Genus APHANARTHURUM.

Wollaston, Ins. Mad. 292 (1854).

Aphanarthrum piscatorium, Woll.

A. fusco-nigrum, pilis suberectis dense vestitum; prothorace alutaceo dense punctato, antice producto rotundato sublurido; elytris dense subseriatim punctatis et transversim rugulosis, dilute testaceis, fasciis duabus profunde dentatis nigris (una sc. magna et altera

angustiore suffusa postica) ornatis; antennis pedibusque obscure testaceis.

Long. corp. lin. $\frac{2}{3}$ — $\frac{3}{4}$.

Habitat locos inferiores Maderæ, in ramis *Euphorbiæ piscatoriæ* emortuis degens.

Aphanarthrum piscatorium, Woll., Ann. Nat. Hist. ser. 3. vol. v. p. 166.

A. smaller than the *A. Euphorbiæ*, and with the pubescence rather denser, longer, and somewhat darker. *Prothorax* rather longer in proportion, though less acuminate (or more regularly and obtusely rounded) anteriorly,—where, moreover, it is free from the small marginal asperities, or tubercles, which are so evident in that species; of an altogether darker hue, the extreme apex only being of a more or less lurid yellow; sculptured much in the same manner as the *A. Euphorbiæ*, but with the punctures, as well as the under alutaceous surface, somewhat more coarse and dense; and with the obscure dorsal ridge narrower and less conspicuous. *Elytra* a trifle more densely and regularly sculptured than in that insect; and with the front fascia usually broader (or more suffused) and less broken, and the hinder one also more suffused and placed nearer to the apex, to which it occasionally altogether extends. *Limbs* dusky testaceous, being usually less obscured than those of the *A. Euphorbiæ*.

The present insect was detected by myself—and, subsequently, on the same day (the 23rd of December, 1858), by Senhor Moniz—in decayed stems of the *Euphorbia piscatoria*, between Point Oliveira and the Brazen Head, to the east of Funchal. It was through the fact of having previously captured it in Teneriffe, Palma, and Hierro, of the Canarian group, within the rotten branches of the selfsame plant, that I was induced to commence a search amongst the *Euphorbias* of the lower elevations of Madeira also; and the result was that the present *Aphanarthrum* and the following one (both of them being likewise Canarian) were at once added to our list. It seems to be as common throughout the maritime districts of Madeira as the *A. Euphorbiæ* is in the *E. mellifera* of loftier altitudes; for it has been taken abundantly by Mr. Bewicke and Senhor Moniz, not only towards Caniço (where we first observed it), but also at Porto Novo, and in the region beyond the Cabo Gerão, to the westward of Funchal.

Aphanarthrum bicolor, Woll.

A. pallido-testaceum et pilis paucis erectis remote vestitum; prothorace subtilissime alutaceo sparse et minutissime punctulato, antice producto necnon ad apicem ipsum acuminato incrassato,

linea dorsali, utrinque plaga longitudinali, macula transversa subpostica et linea transversa subantica (plus minus confluentibus suffusis) nigris; elytris paulo nitidioribus subdiaphanis, remote seriatim punctulatis (punctulis minutis), fasciis duabus profunde dentatis nigris (una sc. magna in medio duplici et altera angustiore subpostica) ornatis.

Long. corp. lin. $\frac{3}{4}$ —1.

Variat lineis maculisque plus minus fractis, disjunctis, rarius subobsoletis.

Habitat in iisdem locis ac præcedens, sed illo paulo rarius.

Aphanarthrum bicolor, Woll., Ann. Nat. Hist. ser. 3. vol. v. p. 165.

A. pale testaceous, and of a slightly more shining and subdiaphanous surface (at any rate, as regards the elytra) than either of the other Madeiran *Aphanarthra*; also very much less pilose, there being only an extremely few (though rather long) suberect hairs scattered over its surface. *Prothorax* rather more acuminate anteriorly than that of the *A. piscatorium*, and also a little thickened (or subtuberculose) at the extreme apical margin,—but neither so much acuminate nor so distinctly roughened as in the *A. Euphorbiæ*; most closely and delicately alutaceous (when viewed beneath the microscope), but with the additional punctures, which are so numerous in the other species, excessively minute and extremely remote; with a transverse dash behind and before, a longitudinal one (connecting them at their extremities) towards either side, and a narrow dorsal line (connecting them in the centre) black; but all of them more or less confluent, and occasionally quite disjointed. *Elytra* likewise alutaceous (but, from the surface being a little rougher, or more uneven, less distinctly so), and most minutely and remotely punctulated; and with the fasciæ dark and very similar to those of the *A. Euphorbiæ*, but with the hinder one of them generally more broken and subobsolete. *Limbs* dusky testaceous.

The pale, but beautifully marked, subglabrous, and comparatively unpunctured surface of this elegant *Aphanarthrum* will immediately distinguish it from its two Madeiran allies. As already stated, it was captured out of the same plants as, and in company with, the preceding species, though somewhat less abundantly. The Madeiran specimens differ in no respect from the Canarian ones, except that they are perhaps a trifle less subdiaphanous or shining, and that their elytra are a little more coarsely alutaceous, and with their punctures (although so distant and minute) rather more perceptible. Like the *A. piscatorium*, it will probably be found to occur throughout the lower elevations of Madeira—wherever *Euphorbia piscatoria* abounds.

Genus LEIPARTHURUM.

Wollaston, Ins. Mad. 294 (1854).

Leiparthrum inarmatum, n. sp.

L. breviter subovato-cylindricum fusco-nigrum et pilis rigidis (præsertim postice) vestitum; prothorace antice subattenuato inarmato (*i. e.* tuberculis omnino carente); elytris profunde striato-punctatis, interstitiis leviter elevatis, apicem versus plerumque paulo dilutioribus necnon ad apicem obsoletissime subtruncatis.

Long. corp. lin. $\frac{2}{3}$ — $\frac{3}{4}$.

Habitat in ramis emortuis *Euphorbiæ piscatoriæ*, in inferioribus Maderæ crescentis, minus frequens.

L. short and subovate-cylindrical (having the slightest possible tendency to be expanded behind, *i. e.* towards the apex of the elytra), black or brownish-black; and more or less clothed with short, thick, rigid, cinereous, and somewhat scaly pubescence. *Prothorax* a trifle more narrowed anteriorly than in the *L. bituberculatum*, and also a little more coarsely alutaceous and punctured; and without any appearance of the tubercles in front, which are so evident in that species, as well as in the *L. mandibulare* and *L. curtum*. *Elytra* deeply and distinctly striate-punctate (the punctures being large and well defined), and with the interstices obscurely elevated; a little more suddenly terminated (or with a very slight tendency to be obliquely truncated) at their apex—where, moreover, the setæ are rather longer and coarser, and appear therefore to be more evidently disposed in longitudinal rows. *Limbs* paler.

The present insignificant little *Leiparthrum* was detected by myself in the rotten stems of the *Euphorbia piscatoria*, in company with the two *Aphanarthra* described above, in the maritime district between the Brazen Head and Caniço, to the eastward of Funchal, in which locality it was subsequently captured likewise by Senhor Moniz and Mr. Bewicke. Its rather shortened and apically-subtruncated form, in conjunction with its comparatively deeply-sculptured elytra (with their large punctures and raised interstices) and its untuberculated prothorax, will at once distinguish it from its allies, from which, moreover, in its exclusively (as I believe) *Euphorbia*-infesting habits it completely recedes.

Genus CRYPHALUS.

Erichson, in Wiegmann Archiv, ii. 61 (1836).

The diminutive insect described below I regard as a *Cryphalus*: at any rate, after carefully mounting its antennæ in Canada balsam, I cannot satisfy myself, beneath the highest microscopic power, that its funiculus is more than quadriarticulate. Indeed, so excessively minute are the three transverse joints between the

large, thickened, subtriangular *basal* one (of the funiculus) and the club, that it was some time before I succeeded in separating them at all *inter se*,—having regarded them at first as a single articulation. But having succeeded at last in mounting an antenna in a slightly curved position, so as to display this small portion to the greatest possible advantage, it became a comparatively easy matter to recognize it as made up of three subequal parts. Thus, in the Madeiran members of the *Tomicidæ*, we have the funiculus composed in *Aphanarthrum* of three joints, in *Leiparthrum* and *Cryphalus* of four, and in *Tomicus* and *Hypoborus* of five. The *C. aspericollis* is powerfully winged, the wings being densely and minutely irrorated all over with black points or punctules (but almost free from veins), and ciliated on their *lower* edge with long hairs; its tibiæ are compressed and externally spinulose.

Cryphalus aspericollis, n. sp.

C. minutissimus, cylindricus, subnitidus, nigro-piceus et setulis rigidis suberectis cinereis adpersus; prothorace irregulariter subpunctato-ruguloso, ante medium subnodoso-convexo, antice obtuse rotundato necnon mucronibus valde asperato; elytris minute seriatim punctulatis et longitudinaliter setosis, ad apicem integris; antennis pedibusque pallidis.

Long. corp. lin. $\frac{1}{2}$ — $\frac{2}{3}$.

Habitat Maderam, sub cortice arborum emortuo arido hinc inde sat vulgaris.

C. minute and cylindrical, slightly shining, dark piceous-black, and sprinkled all over with rigid, suberect, cinereous, scale-like hairs. *Prothorax* irregularly but lightly punctured, and rugulose, with a small convexity on its fore disk (where it is occasionally a little more diluted or rufescent), and greatly roughened in front with coarse tubercles and points. *Elytra* very lightly seriate-punctate, and with a row of excessively minute punctules down each of the interstices; the setæ regularly disposed in longitudinal rows; rounded and entire behind. *Limbs* paler.

In its cylindrical outline and anteriorly roughened prothorax, the present minute wood-borer has all the appearance of a diminutive *Tomicus*; nevertheless, its elytra have no tendency to be obliquely truncated behind, and, as already stated, its funiculus is only 4-articulate. I detected it in abundance beneath the dry dead bark of a rotten chestnut paling, above Porto da Cruz, in the east of Madeira proper, during December 1858; and it was subsequently captured by Mr. Bewicke and myself, in the tinder-like wood of an old fig-tree, at the Feijãa dos Padres, beyond the Cabo Geram. And I have also taken it, from out of dead geranium-stems, above the Puerto of Orotava, in Teneriffe.

[To be continued.]



Wollaston, Thomas Vernon. 1860. "XXXVIII.—On additions to the Madeiran Coleoptera." *The Annals and magazine of natural history; zoology, botany, and geology* 5, 358–365.

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