COLEOPTERA HESPERIDUM,

BEING AN ENUMERATION

OF THE

COLEOPTEROUS INSECTS

OF THE

CAPE VERDE ARCHIPELAGO.

BY

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TO

THE BARÃO DO CASTELLO DE PAIVA,
OF LISBON,

WHOSE LONG-CONTINUED LABOURS IN THE CAUSE OF NATURAL SCIENCE HAVE RENDERED HIS NAME SO JUSTLY CELEBRATED THROUGHOUT PORTUGAL, AND FROM WHOM FRIENDLY INTERVENTION I HAVE, ON NUMEROUS OCCASIONS, DERIVED MUCH VALUABLE ASSISTANCE IN THE PROCURING OF ENTOMOLOGICAL MATERIAL FROM THE VARIOUS AND WIDELY SCATTERED ISLANDS OF THESE SUBAFRICAN ATLANTIC GROUPS, THE PRESENT TREATISE ON THE COLEOPTERA OF THE CAPE VERDE ARCHIPELAGO IS DEDICATED.
The material from which the present Treatise has been compiled is mainly the result of two expeditions which were undertaken by John Gray, Esq., in his yacht 'the Garland;' and it was during the second of these, when I myself had the good fortune to accompany him, that the majority of the species were collected.

Considering that both of Mr. Gray's trips were accomplished at nearly the driest season of the year, and moreover after an interval of almost unprecedented drought (when even the scanty rains which are accustomed to fall during the autumnal months had been wellnigh withheld), I should not have ventured to elaborate from our material a Coleopterous Fauna of the Group, were it not that

(1) the extreme difficulty of investigating so remote and little-visited an archipelago renders it most desirable that whatever is known about its productions should be so recorded that it may be kept permanently together; and

(2) the result of my own experience in five of the islands has convinced me that the species are at all times so few in number (as compared with what are usually to be met with in regions which are less barren), and moreover, on the average, so uniformly distributed over the various parts of the cluster, that I feel tolerably satisfied that the short Cata-
ologue which I am enabled to supply does in reality contain a very considerable proportion of the forms which would probably be found, not only during even the rainy season, but likewise in whichever island happened to be the one which was selected for investigation.

The Cape Verde archipelago may be said to include within it ten islands (for a number of outlying rocks, most of them nearly inaccessible, can scarcely be taken into account); and indeed one of these "ten" (namely St. Lucia) is so small, as compared with the rest, that it might wellnigh be ignored, or at any rate affiliated to St. Vicente; in which case the number would be reduced to nine. Therefore, when I mention that the present Catalogue refers to six out of the nine, it will at least be admitted that a tolerable amount of the entire area has been partially examined. And moreover it is especially to be noted that the three which still remain untouched are the three eastern ones of the Group—Sal, Boavista, and Maio (known generally as the "Salt Islands")—which, from their geographical position and natural features, might almost be said to constitute a distinct assemblage of themselves.

The six islands treated of in this volume are S. Antonio, S. Vicente, S. Nicolão, S. Iago, Fogo, and Brava; and S. Nicolão is the only one of them which I have not, myself, explored. That island however was visited by Mr. Gray during his first cruise, in February 1864, when I was unable to accompany him; but as he did not then pay so much attention to entomology as was the case on his second trip, the list from S. Nicolão will be found to be less complete than those from the remaining five of the islands which I have above enumerated. Yet there can be no doubt that S. Nicolão is, in reality, one of the most productive of the whole.
The first of Mr. Gray's sojourns in the Cape Verde archipelago (when he was accompanied by the Rev. R. T. Lowe) commenced on February 13th, 1864, and was continued until the 2nd of the following April; whilst the second (in which Mr. Lowe and myself were his companions) occupied January and February of 1866. Both of these expeditions were undertaken in his yacht 'the Garland,'—an arrangement by which the most favourable opportunities were secured for reaching the distant parts of the Group. But, long anterior to this (namely in December 1856) a single day was spent at S. Vicente by Mr. Gray and the Rev. Hamlet Clark, on their outward voyage to Brazil, when a few species were captured by them [vide the footnote on the page which precedes my "Index Topographicus"] which have not subsequently been met with. And I may add also that, in addition to this, a similar passing visit was paid to the same island (on the 11th of June, 1857) by my nephew, Captain F. W. Hutton—and others, of a like nature, by Mr. A. Fry, of London,—from both of whom, though particularly the latter, I have obtained some slight but interesting accessions to the general material.

My grateful acknowledgments are due to Dr. H. Dohrn, of Stettin, who has placed unreservedly in my hands all the specimens which he collected during a sojourn (in January 1865) in the island of S. Antonio; and it is much to be regretted that an unfortunate accident should have destroyed completely the whole of those which he afterwards amassed in S. Vicente, S'ta Lucia, S. Nicolão, and S. Iago, and which, consequently, are lost to science. I would call particular attention to this fact, because Dr. Dohrn laboured successfully and hard in the several islands above mentioned, great credit being due to him for the persevering energy which he
brought to bear upon his self-imposed task; and there can be no doubt that his collections, had they been preserved, would have enabled me to render the present Catalogue far more complete than it is. But, as just mentioned, they perished entirely,—a few little bottles of Coleoptera which he remitted to me from S. Antonio being all that remains to attest his zeal in a cause which he took in hand with such diligence and goodwill. This S. Antonio batch, however, although containing but a small number of species, is extremely interesting; and it will be observed that I have had frequent occasion, throughout the volume, to allude to Dr. Dohrn’s researches in that particular island.

My excellent friend, also, the Barão do Castello de Paiva, of Lisbon, has not failed to add his quota to the material which has enabled me to compile the present Treatise,—two consignments which he obtained from S. Vicente and Fogo having furnished (at any rate in the case of that from the latter) a few novelties of considerable importance; and I am glad to have it in my power to place on record, thus far, the services of one who has ever proved himself ready to lend a helping hand to the cause of science—not only in the Cape Verde archipelago, but in the various other islands of these scattered Atlantic Groups.

To M. Fauvel, of Caen, my thanks are likewise due for examining certain members of the Staphylinidae, and for communicating others—one of which has proved to be new to the Cape Verde fauna.

It now only remains for me to acknowledge with thankfulness the kind help which we received, during our sojourn at S. Vicente, from Thomas Miller, Esq., H.B.M. Consul for the Cape Verdes, and from Mr. G. K. Rendall,—both of whom afforded us, with characteristic liberality, every
facility in their power for carrying out the special object of our trip, furnishing us with local data without which we could scarcely have accomplished all that we desired. To Mr. Miller indeed I am additionally indebted for numerous contributions of Coleoptera, both previous to and since our late campaign, which, from including occasional novelties to the fauna, have proved to be of great geographical importance. The long acquaintance of Mr. Miller with these islands, added to his keen power of observation and general fondness for natural science, give a value to his assistance which it would be ungrateful to overlook; and I have had much pleasure therefore in placing on record, as the opportunities presented themselves, the aid which has at various times been granted to me by his successful and disinterested researches.

Although pertaining to a different Group of islands from the more northern ones which supplied the material for my 'Coleoptera Atlantidum,' I have nevertheless thought it admissible to embody, in a short Appendix at the end of this volume, a few addenda and corrigenda to the Madeiran and Canarian faunas which have been brought to light since the publication of that work.

Teignmouth, Dec. 7, 1867.
trust, hereafter, if not by myself, by some more successful observer. But I nevertheless venture to hope that it will constitute a basis, tolerably accurate so far as it goes, for future discoveries to be, from time to time, engrafted upon, as circumstances may require; and it is this hope alone which has encouraged me to give a definite shape to the result of the researches (principally) of Mr. Gray and myself, during our late cruise in that remote and little-visited archipelago.

The three islands of which we had not the time to attempt an investigation are Sal, Boavista, and Maio; and any naturalist, therefore, who will undertake the difficult task of ransacking this somewhat isolated eastern assemblage will confer a real boon on the entomological geography of the Cape Verdes. Yet I must express my belief that, from all we could ascertain about them, their fauna will be found to be extremely poor—far more so indeed than that of the western members of this singularly unproductive cluster; for they are not only less elevated than any of the latter, but apparently drier still and (if possible) even more barren. One might perhaps conceive them to have a rather closer affinity than the other islands with the African coast (as indeed their very position itself would tend to imply); and their more sandy, salt-producing surfaces will further point towards the same conclusion. But they must clearly possess a fauna, however scanty, of some sort; and we may expect that they will be ascertained to harbour (apart from many species which are doubtless distributed over the entire archipelago) a few saline and sand-infesting forms which probably do not occur elsewhere in the Group.

General Statistics.—Though I have already hinted at it in my Prefatory remarks, I would desire here to lay particular stress on the strong conviction which was forced upon us, after examining six of these widely scattered islands, touching the comparative sameness, or want of variety, in the Coleopterous population of the Cape Verdes, throughout the component parts of the archipelago. True it is that every island has some forms which appear to be peculiar to it (the result often, I cannot but think, of the slight modifying influence possessed, within its own proper limits, by mere isolation—as exemplified in certain ultra-indigenous genera, like Dinos, Oxyera, and Trichosternum), and it likewise frequently happens that what is rare in one island is common in another; but it was singular how very much, on the whole, the same actual species were met with by us in even the most distant parts of the Group—far more so than what my
experience in the Madeiras and Canaries would have led me to anticipate. I look upon this as an important consideration, in discussing the statistics; because it supplies presumptive evidence that the united list, from all the islands which we investigated, must make a nearer approach to a general fauna than could have been the case had the several islands been less uniformly tenanted,—species which escaped our notice in one island having had no less than five other chances (in the remaining five islands which we partially explored) of being detected. This must necessarily be true, as to principle, in the overhauling of every insular assemblage; but the "uniformity" to which I have just called attention inclines me to believe that it is par excellence so in the Cape Verdes—where I feel tolerably satisfied that even two or three islands well examined (or a greater number less perfectly so—as in this instance) would give us, conjointly, an overwhelming proportion of the species which inhabit the entire archipelago.

It will easily be gathered from the above observations that, despite the poverty of one or two of our island-lists (such as those from S. Nicolão and Brava), I have every reason to suspect that the 278 species for which I am enabled to vouch embody a very considerable proportion of the Coleoptera which will ever be brought to light in the Cape Verde Group*. And although it is true that the excessive dryness of the particular months during which our cruise was undertaken resulted in an unnatural scarcity of insect-life, I nevertheless believe, after a close inspection of fragmentary remains (often in great abundance), that even the rainy season, while unquestionably furnishing some novelties which altogether escaped us, would be more likely to augment the number of the individuals of the species which we met with than to favour the appearance of any vast amount of additional forms. At any rate I think that the 278 species may be so safely received as a fair sample of the entire beetle-population (should it ever be made known), that we may venture to anticipate that the novelties which may hereafter occur will not alter materially the relative proportions, inter se, of the twelve primary Divisions under which the Coleoptera are usually supposed to arrange themselves. And the probability that it will not be much interfered with by future accessions to the list may tend perhaps to render the distribution here implied all the more interesting.

* Only 275 species are actually enumerated in this volume; but I possess the remains of two additions to the Geodaphaga (a Bradybenus? and a Stevophthus?), and of one (on the Zonitis? type) to the Heteromera,—which, although too fragmentary to be made use of in a descriptive Catalogue, are nevertheless quite sufficient (where mere numbers are alone concerned) for the general statistics.
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The salient fact elicited from the above is that the relative proportions which these great Departments of the Coleoptera bear to each other is pretty nearly the same here as it is in the Madeiran and Canarian Groups, except that the Heteromera and Rhynchophora would appear to have changed places,—the former being more expressed in the Cape Verdes, and the latter less so, than is the case in those comparatively northern and prolific archipelagos. Although it may not have been so at every period of their history, before the improvident inhabitants had by the destruction of the timber reduced them to the merest cinder heaps, this is entirely in accordance with what we should anticipate from the present condition of these arid islands—in which the Heteromerous forms would naturally find a more congenial home than the Curculionideous ones, which are mainly dependent, for their subsistence, on the vegetable world. The other peculiarities which characterize the Madeiran and Canarian faunas are here not only shadowed forth but even exaggerated—the Eucerata, which are there so feebly represented, having hitherto had no exponent detected in the Cape Verdes. I do not wish however to imply my belief that the Longicorns are absent from the archipelago; for the fact that our researches were prosecuted at the wrong season of the year may account for our not having met with them, and indeed I did obtain a larva (beneath the dead bark of a gigantic Ficus in the interior of S. Iago) which I believe to have been a Cerambideous one; but I am satisfied that, if existing, they must be marvellously scarce, or we could hardly have failed to observe at any rate the traces of them in some of the numerous localities which we examined*. After the Eucerata, the

* Possibly indeed, as in the Madeiran and Canarian Groups, the rotten Euphorbia-stems, when patiently investigated, may be found to harbour one or two species of the Eucerata.
Hydradephaga occupy the lowest place in the list, and next to them the Philhydrida—which is also in harmony with the Madeiran and Canarian statistics: indeed it is only surprising that they should have any representative at all in a cluster some of the islands of which are entirely destitute (except during the short and capricious "rainy season") of the merest vestige of streams, whilst even the somewhat less barren ones (such as S. Antonio and S. Iago) are but scantily supplied with water in certain distant and favoured spots. The Phytophaga too have but few exponents (particularly when we take into account that about 5 out of the 14 species which I have recorded are probably introduced ones), and stand both relatively and absolutely lower in the scale than is the case in the more northern Groups—the result, doubtless, of the very same circumstances which have occasioned a general depauperation of the Rhynchophorous fauna. The Geodephaga, on the other hand, hold the same relative position that they do in the 'Coleoptera Atlantidum,'—a position which must be considered decidedly high for this arid archipelago.

Local Statistics.—While discussing the local statistics of the more northern Groups, when I compiled my 'Coleoptera Atlantidum,' I drew special attention to the numerous obstacles which must needs present themselves against the thorough exploration of any assemblage composed of widely scattered islands—all of which are more or less dangerous of access, and some nearly unapproachable. This cannot but be true, wheresoever the archipelago is situated; and it is a vast adjunct, therefore, to the difficulty when a distance of nearly 3000 miles has to be gone over before the labour of research can be even commenced. But, apart from this latter fact, the investigation itself is in some cases wellnigh insuperable; for to reach the separate islands at all, omitting none, is frequently a task of no ordinary difficulty and sometimes of actual danger; so that to land on the whole of them, and moreover often enough to be enabled to catalogue their several faunas as indicated throughout the year, is an herculean work which it might properly require a lifetime to accomplish. I mention this in order to draw a correct contrast between the labour of investigating an island-Group and a region which is unbroken; for every island (whether large or small) being, as it were, a country in itself, a general list for the archipelago will not convey a sufficiently accurate idea of the entomological geography unless accompanied at the same time by special ones for the several islands which are included within it, and which in the character of their productions often
differ materially amongst themselves. So that while the exploring of a continuous land involves but a single operation (however pro-
longed), that of an insular assemblage necessitates many distinct ones, to be commenced de novo, according to the number of the islands which must be separately examined. From which considerations it would follow that, whatever be the difficulty in compiling a general catalogue for an archipelago, it is far eclipsed by that which is involved in the elaboration of (what we may be permitted to call) a batch of lists—rendered indispensable by the existence of islands in each of which a considerable number of the same common species will have to be conscientiously vouched for and recorded.

This great difficulty in filling up the island lists of an extensive and remote insular assemblage, added to the dryness of the particular sea-
son during which we visited the Cape Verdes, must be my apology for the incompleteness of one or two of the catalogues. Yet, at the same time, while I am fully persuaded that they might be considerably increased by a resumed exploration at a more favourable period of the year (especially as regards S. Nicolão, which we did not even attempt to investigate during our late trip, and which was only just glanced at by Mr. Gray on his former cruise), I will venture to hope that their defectiveness is to a certain extent more apparent than real; for I have already called attention to the unusual and singular barrenness of this wonderfully arid cluster. But, be this as it may, the great uniformity (lately referred to) of the insect-population throughout the archipelago, as compared with what that of the Ca-
aries and Madeiras would have led us to anticipate, encourages me to believe that, whatever be the deficiencies in the local lists (as given below), the general one at all events (above recorded) will be found, even eventually, to include a very considerable proportion of the en-
tire fauna. In the case indeed of an island which is so small, and so marvellously barren, as S. Vicente, I doubt if even the rainy season would supply us with many additions to the 132 species which I am enabled to enumerate; and it is probably due to our longer sojourn there than elsewhere that its catalogue has been raised to a higher number than that of any of the other islands,—for I need scarcely add that S. Antonio and S. Iago, which are larger and (in many districts) more luxuriant than S. Vicente, ought in reality to possess a richer fauna than the latter. Brava, being so limited in extent, would not be likely to furnish any very considerable list; nevertheless the 61 for which alone I can vouch would probably be at least doubled during a more favourable season of the year; for at the time of our visit it
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was perhaps even more dried-up still than any of the other islands. The following Table will indicate the number of the species hitherto brought to light, in the six islands which have been partially examined*:

<table>
<thead>
<tr>
<th>Island</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>S. Antonio</td>
<td>114</td>
</tr>
<tr>
<td>S. Vicente</td>
<td>132</td>
</tr>
<tr>
<td>S. Nicolão</td>
<td>27</td>
</tr>
<tr>
<td>S. Iago</td>
<td>130</td>
</tr>
<tr>
<td>Fogo</td>
<td>93</td>
</tr>
<tr>
<td>Brava</td>
<td>61</td>
</tr>
</tbody>
</table>

Considering that each of these numbers vouches for the ascertained existence of some one species in one or the other of the above-mentioned islands, it follows that the 557 which they amount to might so far as the labour of observation is concerned have been all distinct species. But since a large proportion of the forms permeate the entire archipelago, and have therefore to be registered over and over again for the different islands, the general catalogue, so far as hitherto ascertained, for the whole Group reaches only (as above stated) to 275.

Dominant Forms.—Although it is difficult to conjecture what the prevailing types may have been before the native timber (which must at any rate have clothed certain districts and ravines) had been destroyed, and the islands consequently reduced to the dry and depauperate state in which we now find them, it is certain that the particular forms which are at present dominant, although existing in the utmost abundance, are but few in number, and confined principally to the Heteromerous groups. Indeed the two great genera which may be said to characterize the archipelago—occurring beneath stones and refuse everywhere, and permeating every part of it, from the sea-level to the summits of the peaks—are Oxycara (of the Tentriadae) and Trichosternum (of the Opatridæ); both of which possess slightly modified, though permanently differing, exponents for most of the islands,—exponents which it is far from impossible may be in reality but insular phases (shaped out, as it were, within their respective districts, by the combined influence of mere interbreeding and isolation) of two aboriginal generic types. At any rate the evidence before us seems suggestive of some such maturing process; for although there is nothing to warrant a suspicion that any further change

* Of the three species the fragmentary remains of which I alluded to in the foot-note on page xiii., one was found (by Mr. Miller) in S. Vicente, and the other two (which are Geodephaga) in S. Iago. I have therefore added them to the respective numbers for those particular islands.
is now going on, we may nevertheless reasonably conceive that the altered circumstances of the entire province, consequent on its having become broken up, might perhaps involve, as a sine qui non, a certain amount of trifling after-modification in some of the more plastic species which had been suddenly cut off from the rest of their kind: for it is hardly credible that special creations, differing so minutely inter se as the forms which we are now noticing, should have been brought about, for the sake of giving a distinctive feature to every individual island, and islet, in a scattered archipelago. Yet, at the same time, we must recollect that even this is, after all, but an assumption (for we have no means, in reality, of gaining any positive knowledge whatever on the subject); so that, in the total absence of intermediate links, we have practically no choice left us but to treat all such kindred forms as true and bona fide species. I have entered into these remarks because the many Oxycarpe, and somewhat less numerous Trichosterna, which I have been compelled to admit into the present Catalogue, occupy perhaps the most prominent place, as well as a rather peculiar one, amongst the Coleoptera of the Cape Verdes; and it is necessary therefore to state plainly, at the outset, how far I feel bound to regard them (separated often, as they are, from each other by extremely minute though permanent characters) as genuine and undoubted species. In real fact, I consider that this problem (in a strict abstract sense) cannot be solved—though, fortunately, for all practical purposes, it may be said to carry its own solution (as a sheer matter of necessity) along with it.

After the above observations I need say little more about the Oxycarpe, which constitute so marked a feature in the Coleopterous population of this arid archipelago. Yet, however numerous they are (both in species and individuals), their chief interest consists in their exactly representing throughout these islands the Hegeters which are so abundant in the Canarian cluster. Indeed their prima facie aspect is so precisely that of Hegeter that until I had examined them critically I could not persuade myself that they were generically distinct from it; and I imagined therefore that they would prove to be but the exponents of a Cape Verde modification of that group. But their structural characters are nevertheless too decided, and permanent, to admit of that conclusion; whilst the fact that Hegeter in its normal state (though only under the form of the widely spread II. tristis, which of course may have been naturalized within a comparatively recent period) does actually occur likewise in the archipelago would tend still further to render it highly improbable
that the one is a geographical development from the other. But I
will add that, were it possible to suppose that this is the case (and I
myself do not believe it possible), I suspect that, by parity of reason-
ing, we should be compelled to admit that the equally dominant
Trichosternum is but a southern phase of the Madeiran (though not
Canarian) genus Hadrus. However I reject these fancies, as incapable
of proof; and because if we once admit them to be worthy of consider-
ation, there is no limit to the absurdities into which we find our-
selves, ere long, imperceptibly led.

Next to Oxyarea and Trichosternum, I should regard the common
genus Opatrum as perhaps the most prevailing one; for although the
number of its species which have been hitherto detected is not great
(being, in fact, only three), its individuals occasionally teem as
marvellous an extent as those of the two groups above-mentioned.
This is particularly the case with the O. patruel, which in hot arid
spots of a rather low elevation may sometimes be found in multitudes
beneath the stones. But as it is the character of the Opatra in many
countries to be eminently gregarious, and the Cape Verde ones do not
appear to be peculiar to the archipelago, I cannot look upon the genus
as possessing any great geographical or local interest.

There is one form however which, although far less abundant in
the number of its individuals, I consider to be quite as characteristic
of the Cape Verde archipelago as even Oxyarea and Trichosternum;
and it is important to note that in this instance it is a Rhynchophorous
one, and not Heteromerous. It is a member of the subfamily Brachy-
derides, and (while of comparatively diminutive stature as regards its
exponents) somewhat allied to the Canarian genus Herpysticus; and
as it does not seem to have been enunciated, I have treated it as new
—proposing Dinias for a title. Although we gained no positive evi-
dence concerning its mode of life, yet I strongly suspect (from the
occurrence of one of its representatives, in S. Vicente, amongst the
dead branches, and even on the blossoms, of the Euphorbias) that it is
a Euphorbia-infesting genus; and if this be so, the destruction of
the native timber (assuming such to have once existed), and the con-
sequent exhaustion of the major part of the vegetation from lack of
moisture, would probably not much interfere with its economy and
well-being; for the Euphorbias (which, however, are themselves fast
disappearing—being gathered by the inhabitants for dyeing-purposes
and for fuel) are able to thrive on even the most arid mountain-slopes.
Five representatives of this group having already been brought to
light, each of them peculiar to a single island, I fully anticipate that
many more will yet be discovered, and likewise that the observations which I have entered into concerning the "species" of *Oxycara* and *Trichosterna* will perhaps be found to be equally applicable to a certain number of those which constitute *Dinas*. I say "a certain number;" because at any rate one of them (namely the *D. rugicollis*, which was captured by myself on the summit of Monte Verde in S. Vicente) is so marvellously dissimilar to the remainder, while belonging unquestionably to the same group, that I cannot suppose that it (at any rate) could possibly have been matured, by even the most extravagant process of "development," from any of its congeners; while, at the same time, the existence at all of a representative which is comparatively so monstrous and abnormal would certainly tend to strengthen my suspicion that many others (whether intermediate or not) may, and probably do, remain to be detected.

Other forms there are which I would regard as eminently characteristic of the Cape Verdes, but which, from the fact that they have not yet been detected throughout the major part of the archipelago, I can scarcely pronounce to be so strictly "dominant" as those to which I have just called attention. I allude to such insects as that remarkable little setose Ptinid, the *Microptinus echinatus*—which in at any rate the two northern islands, S. Antonio and S. Vicente, is universal (if not exactly abundant) from the level of the shore to the mountain-tops; and it possesses an additional interest geographically through its close alliance, both in generic and specific details, with one of the most indigenous (and apparently endemic) of those inhabiting the Canarian Group. And, next, I may direct notice to the Carabideous *Cratognathus labiatus*—which, while belonging to a genus widely spread over these various Atlantic islands, is a species which will probably be found to be wellnigh universal in the Cape Verdes: at all events, whether this be the case or not, it is locally abundant (for the most part at a lofty elevation) in the three more northern islands of S. Antonio, S. Vicente, and S. Nicolão.*

*In my observations under this *Cratognathus*, at page 23, I have remarked that in all probability it is the species which was defined by Erichson in his Paper on supposed "Angolan" Coleoptera. The frequent allusion which has been made to his Memoir, throughout the present volume, will suffice to place my conviction on record of the grievous injury which was done (however unintentionally) to the cause of entomological geography by the serious blunder into which Erichson was unfortunately led through having been made to believe that the whole of the material which he undertook to examine and describe had been amassed in "Angola." It was not until after his Paper (with its false conclusions on the subject of geographical distribution) had been published that it became known that the collector who was sent from Berlin to investigate the Coleoptera of Angola, *where he died*, touched at the Cape Verde islands on his outward route, and that the material
The Coccinellideous genus Scymnus is rather largely represented, as indeed is the case with it also in the Canarian and Madeiran archipelagos; but since it is far from impossible that a few out of the ten exponents which I have recorded may in reality be but permanent phases of a central plastic type, its predominence perhaps is more apparent than real. Amongst other forms which are locally abundant with respect to individuals, though (unlike Scymnus) represented, so far as observed hitherto, by merely a single species, I may call particular attention to the curious Heteromerous Ammimidium ciliatum (which teems, around the roots of shrubby plants, on the loose sandy maritime hillocks in S. Vicente, and which we may expect to meet with in similar situations elsewhere); to the Aphanarthrum hesperidum (closely allied to, if not indeed a modification of, the Madeiran and Canarian A. piscatorium, and which often swarms within the rotten stems of the Euphorbia Tuckeyana), to the Litargus 3-fasciatus (also Canarian, and frequently very common beneath decaying vegetable refuse), and to the Sanius nigromaculatus, a North-African species which appears to be wellnigh universal, under rubbish, throughout the Cape Verde Group. The Dinetus arcus might likewise be cited as extremely abundant in its own proper localities; and, being Hydradeaphagous, it is worthy of especial notice in an island-cluster where water is so marvellously scarce. I think perhaps however that the profusion in which it often exists on the surfaces of the less rapid streams and pools is in reality the result of the latter being so reduced in number during the dry season that such water-beetles as ever inhabit this barren archipelago are compelled, by the force of circumstances, to become concentrated unnaturally in

from the two countries (remote as they are inter se) was afterwards mixed up indiscriminately. Thus not only were a number of Cape Verde insects recorded by Erichson as "Angolan," but absurd deductions were drawn with respect to their geographical ranges which it will be next to impossible ever to obliterate. Anybody who is at all conversant with Natural History literature must be well aware of the value which is usually attached to any "habitat" which has once been published; for, however inaccurate it may be, and however thoroughly contradicted by a subsequent writer, it will always be liable, nevertheless, to be appealed to, and even trusted in, by future authors who may not have seen the refutation. Nay, more, the very refutation itself will often be called into question; for it can of course be rightly contended that to prove the existence of a species in any given region does not disprove its occurrence in a previously-asserted one likewise. And so, in this instance, Coleoptera which are unmistakeably endemic in the Cape Verde archipelago have been published (and are cited still) as "Angolan," and will perhaps always be subject to suspicion by inquirers into geographical entomology,—and this, be it observed, from no other cause than the mere want of accuracy in an indolent collector, who would not take the trouble to label his material rightly, or to keep the specimens from two remote and dissimilar countries properly separated.
the few spots to which they are then obliged to retire. Nevertheless I should add that we did not find the other members of the *Hydradephaga* which have been observed within the Group in anything like the multitudes which make the *Dineutus arenus* a really conspicuous feature in almost every pool which presents itself.

**Deficiency of certain Types.**—Although the species which I have regarded as *par excellence* "dominant" are not numerous, and confined for the most part to the Heteromera, the total absence (apparently) of many well-known Atlantic types is, on the other hand, a salient feature in this barren archipelago; for whilst but few genera are indicated which do not obtain likewise in the more northern clusters, the disappearance nevertheless of several which may be looked upon as the very key-notes of the Madeiran and Canarian Coleoptera implies an undoubted change in the *prima facie* aspect of the beetle-population. Yet, when we consider how large the number of the types is which permeate the whole of this broken-up Atlantic province and the fewness of those which meet us *peculiarly* in the Cape Verde portion of it, I am inclined to suspect that the "absence" of the others, just referred to (from the latter), is more the result of mere distance (such as would have been equally the case had there remained an unbroken land of passage) than of any radical alteration in the character of the fauna. And, moreover, the marvellously depauperated state of the islands, brought about by the destruction of the timber and the consequent drying-up of the streams, may perhaps have necessitated the annihilation of certain aboriginal species, and in itself therefore explain their non-existence at the present period.

Apart from the considerations to which I have above alluded, it is of course possible that some few of the supposed missing types may really occur in the Cape Verdes, and have only escaped our notice. But, still, if they exist at all, there can be little doubt that they must at least be very feebly represented—or we could hardly have failed to meet with some traces of them; while the fact that they are most profusely developed in the more northern archipelagos would make even their scarcity in an island-Group which has so much in common with the latter a curious circumstance. My own belief, however, is that most of them are decidedly absent from the fauna—though certain of them may perhaps have had a place in it when the external conditions of the region were different, and itself consequently less depauperated. I refer particularly to such extensive genera as *Tarphius, Laparocerus,* and *Atlantis*—all so truly characteristic of the
Canaries and Madeira, but of which no exponent has yet been detected in the Cape Verde cluster; and, if we except the widely diffused *H. tristis* (which may possibly have become naturalized within a comparatively recent period), the same might be said for *Hegeter*—which is so monstrously expressed throughout the Canarian archipelago.

Although they are not so strictly characteristic as *Tarphius*, *Lopesrocerus*, *Atlantis*, and *Hegeter* of the Canaries and Madeira, yet the extraordinary development which is there traceable of the European genera *Calathus*, *Trechus*, *Acalles*, and *Helops* makes them a salient feature in the combined fauna of those two Groups; and it is therefore curious to remark that they likewise seem to have no place in the Cape Verdes. Neither did we meet with any representative of *Scarites*, *Olisthopus*, *Meligethes*, *Atomaria*, *Cetronhynchus*, *Sitona*, *Chrysosoma*, and *Meloe*—which, though somewhat less so, are also conspicuous in both of the more northern archipelagos. I have already called attention, under the General Statistics, to the apparent absence (or, if not entirely so, nearly) of the great department of the Longicorns—a fact which is in complete accordance with what we observe throughout the whole of these various and widely scattered oceanic islands. It is far from unlikely that a few species may be found (particularly in the dead *Euphorbia*-stems) at the proper season of the year; for our cruise having been undertaken during the dry winter months we could scarcely expect perhaps to fall-in with them; but, if they do indeed exist, we may be quite sure, from the non-detection of their remains, that they are at any rate very scarce.

As in the Madeiran and Canarian archipelagos, the vast family *Elateridae* is wellnigh wanting; but the single representative of it which has occurred does not belong to the little *Coptostethus*-type (which is the only one there indicated), but to the comparatively gigantic *Heteroderes*—the *H. grissescens*, a species possessing a wide African range, being the one I allude to. The rarity of the Cetonid family is another point in which the fauna agrees with that of the more northern Groups; but, at the same time, their solitary witness (namely the large *Diplognatha gagates*) which has hitherto been brought to light in the Cape Verdes is, like the single Elaterid just mentioned, an essentially African one; whereas the few which inhabit the Canaries are either endemic or else found in Mediterranean latitudes. It would be hardly prudent perhaps to say much about the flower-infesting Malacoderms, for the dryness and lateness of the

* I may add, however, that the Cape Verde representative of this great Canarian genus appears to be *Ocyceara*. 

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season during which we visited the islands will more than suffice to explain why we did not fall in with them; but it is at least worthy of notice that, although so marvellously expressed in the Canarian cluster (and tolerably so at Madeira), the entire Section, at the Cape Verdes, is vouched-for as yet by only a single form (and even that one of excessive rarity) allied to Pecteropus. Amongst the Hetero-mera, there seem to be no Erodiaede or Pimelias—both of which (while absent from Madeira) are greatly pronounced in the Canarian Group; but Scaurus, which does not properly occur in the more northern archipelagos (though it has occasionally been imported into Teneriffe from the opposite coast of Morocco), makes its appearance—at any rate in Fogo.

Anomalous Forms.—I have already offered some remarks on the comparative uniformity of the Coleopterous population throughout the various islands of this scattered archipelago; and I may also add that there is another fact which is perhaps equally apparent—namely the somewhat commonplace nature of the general fauna. Possibly it may have been otherwise before the destruction of the native timber had reduced the Group to the dry and depauperated state in which we now find it; but certainly at the present time there seems little, amongst the numerous forms which have yet been discovered, to attract special attention. Unlike what we observe in the Madeiran and Canarian lists, there is scarcely a species throughout this entire catalogue which can be regarded as actually "anomalous." There are many which possess a considerable geographical interest, and a few in which the structure is rather peculiar; but these latter are not generally confined to the Cape Verdes, but (like Cosypsyhodes and Pseudanemia) extend into the more northern archipelagos. Such types, too, as Xenothorax (of the Geodephaga), Hydroxenus (of the Philhyrida), and Ammidium (of the Heteromera) are not only highly interesting, but perhaps also endemic; but, at the same time, they are not sufficiently abnormal to merit any very extravagant notice. But there is a minute Staphylinid which I should be inclined to look upon as perhaps the most remarkable of the types which have yet been met with in the Cape Verdes. It is allied to Oligota, in the subfamily Aleocharides; and I have adopted for it the title of Nematoscelis filipes, in my description. It was captured by Mr. Gray in the islands of S. Antonio and S. Vicente—in every instance by beating the foliage of a kind of bean which is cultivated for food*.

* Although Nematoscelis is the only one of them which I should regard as at all "anomalous" in its structural details, the following ten are the new genera
Blind Species.—It is perhaps owing to the fact that the Group has been comparatively but little investigated, that hitherto we have not found insects in which the organs of sight are wanting so conspicuously at the Cape Verdes as is the case in Madeira and the Canaries. Indeed none have yet been detected which are totally blind, and only two in which the eyes are so imperfectly developed as to render it probable that they must be practically almost useless. The two to which I refer are *Cossyphodes* and *Pentatenuus*—the former of which occurs equally throughout the more northern archipelagos, whilst the latter is so nearly allied to the Canarian *P. arenarius* (of similar, sand-infesting habits) that I am doubtful whether it is more in reality than a geographical modification of that species. I may add however that even in *Metopthalmus* the ocular lenses are so few in number that the eyes might perhaps be looked upon as somewhat rudimentary; but in that genus likewise the Cape Verde representative has so much in common with one which exists further to the north (namely the Madeiran *M. asperatus*) that it is far from unlikely that it may be but a more southern phase of the latter.

Ants’-nest Species.—As in the case of the blind species, the Coleoptera which we met with, at the Cape Verdes, in the society of ants are but few in number, though doubtless by a careful, and more continued, research certain others would be brought to light. Perhaps the most important of them, as being unmistakably of myrmecophilous propensities, is the *Cossyphodes Wollastonii* (to which I have just alluded in the preceding section)—which resides within the nests of the same ant (Ecophthora pusilla, Heer) to which it is equally attached in the Madeiran and Canarian Groups. Being nearly blind, and with such a peculiar mode of life, its occurrence throughout the majority of these widely scattered Atlantic islands is in itself a significant fact. Other forms which may be observed occasionally in which I have felt compelled to establish in the present volume: *Xenothorax* (of the Geodephaga), *Hydroexus* (of the Philhydrida), *Apterocterus* and *Microderus* (of the Priocerata), *Dinex* (of the Rhynechophora), *Argosoma* (of the Phytophaga), *Conoscelis*, *Melanosoma*, and *Pseudographia* (of the Heteromera), and *Neurotia* (of the Brachelytra). In addition to these, however, *Trigonornus*, *Trichostridens*, and *Xenoglossus* were enumerated by me, in the 'Ann. of Nat. Hist.' in 1861, and are assumed (like the above ten) to be peculiar to the Cape Verdes,—though I have already stated elsewhere that I consider further evidence is desirable concerning the professed habitats of *Trigonornus* and *Xenoglossus*, which were communicated by the Rev. Hamlet Clark. And, as likewise probably confined to this archipelago, I may here mention that *Amallemus* (recharacterized by myself, in 1861, under the title of *Eremozonemus*) was described by Erichson in his Paper on supposed "Angolan" Coleoptera, but clearly from Cape Verde specimens, so far back as 1843.
similar situations, though at the same time by no means peculiar to them, are the Holoparamacus bipartitus, the Teretrius corticalis, and the Tomicus trypanoeides—the last two of which are found normally beneath the bark of trees.

_Sand-infesting Coleoptera._—It is probable that when the eastern division of the archipelago (Sal, Boavista, and Maio) has been explored the list of the sand-infesting Coleoptera which inhabit the Cape Verdes will be more significant than it is at present; for the published accounts of those three islands would seem to imply that they are not only lower in elevation than the central and western ones, but likewise more calcareous and saline: so that, however dried up and barren they may be, it is not unreasonable to suppose that the majority of the additional species which they may contribute to the general fauna will be found to be more or less of sand-infesting propensities. But, there are a few spots even in the other parts of the Group which offer the necessary requirements for creatures of a sand-loving mode of life—not merely along the sea-shores, which (as at Tarrafal in S. Antonio, Porto Grande in S. Vicente, Porto Praia in S. Iago, Porto da Luz in Fogo, and Porto da Furna in Brava) are occasionally sandy, but likewise in low arid districts which extend often some little distance inland immediately behind them, where the loose, drifted hillocks are sparingly studded with dwarfed Tamarisks and such shrubby plants (composed chiefly of Zygophyllums and Frankenia) as are able to find nourishment in regions thus miserable. On the western side of S. Vicente there is a considerable tract (to the south of Porto Grande) which answers to this description—as also on the opposite coast of S. Antonio, to the south-west of Carvoeiro: and on slopes like these, of dry accumulated sand, many Coleoptera subsist which we should not find (except now and then, by mere accident) in salt places upon (or adjoining) the actual beach. In the following short catalogue I have annexed the figure 1 to those species which occur more particularly either on the shore itself or else in damp saline spots (such as the artificially scooped-out Salterns) alongside it; and a 2 to those which are _par excellence_ "sand-infesting," being attached normally to the drifted ridges and hillocks which are more or less removed from the beach itself. None of them have hitherto been detected in the Madeiran archipelago; but those which I have _italicized_ (just half of the entire number) are found also in the eastern portion of the Canarian Group.

* I have written the Pentatemaus affinis, Holomonus ovatus, and Pseudostene angusta in italics because they are so _extremely near_ to representative Canarian
Dyschirius auriculatus (1).  
_Pogonus Grayii_ (1).  
_Tachys centromaculatus_ (1).  
Saprinus Paivae (2).  
_Pentatenuus affinis_ (2).  
Microlarinus lypriformis (2).  
_Pseudostene angiista_ (1).  
Cleorms mucidus (2).  
_Anthicus dimidiatus_ (1).  
_Scymnus uiaritinms_ (1).  
_Bledius vitidus_ (1).  

Other species there unquestionably are (and plenty of them) which delight in dry and dusty localities, and which therefore are often to be met with amongst the loose sand of these drifted hillocks. But then they occur equally, and sometimes in great numbers, at comparatively high elevations, far removed from all traces of calcareous and siliceous sand; and therefore, as they cannot strictly be termed "sand-infesting," I have not thought it desirable to admit them into the above list. Such, for instance, are the _Opatrums_, _Trichosternums_, and _Oxycaras_ (as well as the _Hegeter tristis_, most of the _Saprini_, _Con/netes rujipes_, and others)—all of which, however, are quite as abundant in regions of a totally different nature, and which frequently ascend into the loftiest altitudes.

_Euphorbian Fauna._—When we consider how rapidly the Euphorbias are disappearing from these barren islands (being used by the inhabitants not only for fuel, but likewise for the purposes of dyeing), and also what a vast number of Coleoptera attach themselves exclusively to that singular race of plants in the more northern archipelagos, I feel satisfied that the Euphorbian fauna as at present indicated at the Cape Verdes is one of great depauperation. There are certain districts however, chiefly at a high altitude, which appear (for I have not myself visited them) to be still densely clothed with those quaint and viscos shrubs, and which when carefully examined may be expected to furnish us with several important additions to the catalogue of _Euphorbia_-infesting species. Such regions are to be found on the extreme summit of S. Nicolão, which, in the vicinity of Monte Gordo, Mr. Gray and the Rev. R. T. Lowe describe as uniformly clad with closely packed bushes of the _E. Tuckeyana_; and the lofty uplands of Fogo seem, in a large measure, to be similarly circumstanced. Indeed from so great a distance as even the Monte
Nucho it was quite possible (in the latter island) to distinguish *Euphorbia*-shrubs, of gigantic dimensions, studding the arid and almost inaccessible slopes which constitute the western buttress of the great central crater; and Mr. Lowe, who reached the interior of that vast scoriaceous region (known, *in situ*, as the Chão da Relva), reports it as abounding, though not exclusively, with Euphorbias. It will therefore be an interesting task hereafter, for some future naturalist, to essay the exploration of these remote and elevated tracts (a work, however, of no slight difficulty) with special reference to an overhauling of the dead Euphorbias. My belief is, that the higher regions of the Cape Verde cluster, above the limits of such aboriginal wood as may be supposed ever to have existed, were once extensively clothed with these monstrous plants; and, in accordance with this hypothesis, the top of Monte Verde (S. Vicente’s highest mountain), which is now being brought into rude cultivation, presents the phenomenon of a wholesale Euphorbian onslaught—for the benefit of mere Indian corn, and the downfall of that noble beetle-population which had hitherto reigned supreme. But the exact period of destruction is often a harvest-time, however brief, for the *collector*; and so the masses of rooted-up shrubs which had been left upon the ground to rot, during the few visits which we paid to that upland locality, gave us a faint but pleasing glimpse of what perhaps might formerly have been the *rule*, on a larger scale, before the islands had suffered from that barbaric system of so-called “improvement” which has had the effect of reducing them practically to the merest heaps of dry basaltic scoriae.

After the above remarks, it will not be surprising that the Cape Verde list of *Euphorbia*-destroying Coleoptera should come short of that which characterizes the more northern clusters. Yet when we take into account the few plants which we were able to examine, compared with those in Madeira, and that prodigious number which clothe whole districts in the Canarian Group, I think that the subjoined catalogue is hardly to be despised—particularly when we bear in mind that the genus *Aphanarthrum*, which is so copiously represented in those higher archipelagos, would seem in these islands (so far at least as observed hitherto) to possess but a solitary witness, which is uniformly distributed throughout the whole of them. The fact, moreover, that the Euphorbias themselves (of this gigantic, arborescent type) pertain apparently to a single species (the *E. Tuckeyana*—which so nearly resembles the Madeiran and Canarian *E. piscatoria* that it may perhaps be but a southern phasis of it)
would naturally betoken a less amount of variety in the creatures which are dependent upon them for food; and this therefore is an additional reason why we should anticipate a relatively shorter catalogue for the Cape Verdes. Nevertheless, despite this manifest reduction in the species of *Aphanarthrum* (for the mere *individuals* of its *one* exponent often abound quite as much as those do of any of the more northern forms), I fully expect that the list, when properly worked out, will include genera which are scarcely less numerous, or less interesting, than those which occur in the higher archipelagos. Thus, even already, we have a substantial foreshadowing of accessions in the appearance on the stage of three new Cleridae (one of which, the *Apteroceles fusiformis* is more decidedly *African* in its relationship), as well as of a most peculiar, and evidently endemic, *Rhyncolus*, of a beautiful *Notiomimus* distinct from the Canarian ones, of a little *Hysterid* (the *Paromalus digitatus*) which will perhaps take the place of the Madeiran and Canarian *Entriptus putricola*, of a *Haltica* which infests the foliage like the Canarian *H. paivana* and which (although of a very ordinary, European contour) is not only truly indigenous in the Cape Verdes, but wellnigh universal, and, above all, *if indeed I do not err in believing it to be attached normally to the Euphorbias* of that significant, and manifestly aboriginal, Rhynchophorous group (five exponents of which have already been brought to light, and there are probably many more of them) which I have enunciated under the name of *Dinas*. As regards the others, enumerated below, they are either (like the *Leemophloeus clavicollis*) identical with species from the more boreal archipelagos, or else (as in the case of the *Aphanarthrum*, *Liparthurum*, *Mesites*, *Auletes*, and *Ditylus*) so intimately connected with them as to leave the question an open one whether they should not rather be treated as mere geographical modifications of the latter. The following, then, are what have been observed, up to the present date, as apparently dependent upon the Euphorbias—the *Ditylus*, however, being admitted, merely, from its close relationship with the Canarian *D. concolor*, which in all events its previous states seems to be of *Euphorbiaceae*-loving propensities:

<table>
<thead>
<tr>
<th>Læmophloeus clavicollis.</th>
<th>Aphanarthrum hesperidum.</th>
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<tr>
<td><em>Paromalus digitatus</em>?</td>
<td><em>Liparthurum Loweanum.</em></td>
</tr>
<tr>
<td>Notiomimus lineatus.</td>
<td><em>Rhyncolus euphorbiarum.</em></td>
</tr>
<tr>
<td><em>Apteroceles fusiformis.</em></td>
<td><em>Mesites hesperus.</em></td>
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<tr>
<td><em>Microceles Dornii.</em></td>
<td><em>Auletes euphorbiarum.</em></td>
</tr>
<tr>
<td>—— <em>euphorbiarum.</em></td>
<td><em>Dinas rugicollis?</em></td>
</tr>
</tbody>
</table>
INTRODUCTORY REMARKS.

Dinas elliptipennis?   Dinas sitoneformis?
—— angustula?    Haltica levissima.
—— obsita.    Ditylus pallidus?

It is much to be regretted however that we had so few opportunities of examining a tribe of plants which doubtless, at one time, must have clothed a large portion of the area presented by these islands, and the significance of which, therefore, in a geographical point of view, it is impossible to overrate. In S. Antonio indeed it was with the greatest difficulty that we could meet with any shrubs of them at all, and that too in spite of long and wearisome rides over the mountains, in various parts of the southern division of the island; for it was only here and there, as at Tabouga and in the Ribeira da Babosa, that we could find any of them remaining. And in S. Iago, likewise, the scarcity was quite as great; for, except on the hills of the interior above Sts Catharina, there were almost none to be obtained. On the other hand, in the higher regions of S. Vicente, though they are fast disappearing, they were more abundant (particularly, as just stated, on Monte Verde); and in Fogo, apart from the quantity (to which I have lately called attention) which clothe, as in S. Nicolão, the lofty uplands, there is a small ravine, at the Fonte of the Monte Nucho, which (although it likewise shelters some equally gigantic Echia) still contains some monstrous bushes of them. In Brava there were a certain number of plants scattered about the mountains, in different directions around the Povoação; but everything was so marvelously dried up when we were there that it was next to impossible to find a single dead one which was not as hard, and free from moisture, as if it had been baking for ten years beneath a tropical sun; so that we secured nothing except the Aphanarthrum hesperidum (for the Auletis and the Haltica levissima occur on the blossoms and foliage) from the rotten Euphorbia-stems of that island.

Species of the Ficus and of the Jatropha.—My observations on the Coleoptera of the Cape Verdes would hardly be complete unless I took some notice of the stray species which appear to be more or less attached to a gigantic Ficus (allied to, if not identical with, the F. sycamorus) which, although now scarce, may perhaps formerly have been one of the most characteristic trees amongst the aboriginal timber with which we can imagine the islands to have been partially and sparingly clothed. In the southern division of the Group there are a few magnificent specimens of it still left,
but even these are fast succumbing to that innate love for destruction which seems to be implanted in the very constitutions of the short-sighted inhabitants, and which has resulted in the depauperation of an archipelago which bears all the marks of having once been well supplied, with vegetation and streams. Although small examples of it are to be met with in semicultivated grounds throughout most of the islands, it was chiefly in S. Iago and Fogo that we observed, here and there, large detached trees which were manifestly of native growth; and in the interior of the former we had the good luck to fall in with one of them (perfectly prodigious in size) which had been felled, and beneath the dead loosened bark of which a multitude of Coleoptera seemed to have instinctively collected together—as though driven, by pressure from without, into one of the few resting-places which still remained for them in a region which was formerly prolific. It may be true that some of them would have been equally at home under the bark of any kind of tree that happened to give them shelter; but the fact that we met with certain of them elsewhere and always in connexion with the same species of Fig, furnishes presumptive evidence that they were even originally of Ficus-destroying propensities. At any rate we can only take the circumstance as we find it, and point out the conditions under which future naturalists may stand a chance of the same amount of good fortune which happened to us in S. Iago. It was in the Ribeira dos Orgãos that the monstrous tree to which I am now alluding happened to have been cut down; and it afforded to Mr. Gray and myself an entomological treat for which, in such a barren archipelago, we were totally unprepared.

I may mention that it was beneath the bark of this particular Ficus that I noticed a Coleopterous larva which I believe to have been that of some Longicorn. Of course I may have been mistaken; but if not, it is a significant fact—seeing that the section Eucerata is actually unrepresented in the hitherto ascertained portion of the Cape Verde fauna. With the exception of the Synchyla crenicollis, the Paromalus digitatus, and the Tomicus trypanoides (which were taken from a trunk of the same kind of Fig, close to the Villa da Praia, in the same island of S. Iago), the whole of the species enumerated below we captured under the bark of this single tree; and some of them were in such profusion that they deserve a passing comment. This was marvellously the case as regards the Lembophlebus politissimus and the Synchyla impressa, and still more so the minute Arthrolips testudinalis, the Lithocrus pallidus, and the
Homalota subputrescens—which last three, nevertheless, can hardly perhaps be looked upon as normally subcortical *. The Paromalus digitatus may, or may not, be normally Ficus-infesting; for as I secured but two examples of it, one of which was from beneath the bark of a Fig and the other (in Fogo) from a Euphorbia, it has an equal chance (so far as this amount of evidence goes) of pertaining to either of those trees. The Tomicus trypanœoides, though clearly attached to the Ficus-trunk (which was lying on the ground) near the Villa da Praia, appears also to be cherished by Ants; for it was likewise, unmistakeably, in the society of the latter; and indeed Mr. Gray rescued a specimen of it from the very grasp of an Ecophthora, which was carrying it carefully in its mouth. The Laemophleus, although thus abundant under Fig-bark in S. Iago, does unquestionably attack other trees likewise; for in Brava we obtained a few examples of it from a Jatropha curcas; but have never observed it amongst the Euphorbias (where its congener, the L. davicollis, reigns supreme).

Arthrolips testudinalis.
Lithocerus pallidus.
Synchyta impressa.
— crenicollis.
Ditoma lyctiformis.
— linearis.
Laemophleus politissimus.
Silvanus inarmatus.
Teretrius corticalis.

Paromalus digitatus (?).
Bostrychus Grayanus.
Lycus equalis.
— obsitus.
Tomicus trypanœoides.
Hypophleus ficicola.
— longicollis.
Homalota subputrescens.

It is worth noting that the whole of these 17 species appear (so far as I am aware) to be peculiar to the Cape Verdes,—which looks as if the “subcortical” fauna (judging from this indication of its remains) was more decidedly endemic than even the Euphorbian one, which includes within it several types which are found equally in the Madeiran and Canarian archipelagos.

And now, as regards the Jatropha curcas (or “Physic-nut”), when we consider how extensively it is cultivated throughout the Cape Verde Group (entire hillsides, particularly in S. Iago, being

* I should state however that two out of these three (namely the Lithocerus and Homalota) were captured under precisely similar circumstances (and also in company with the Laemophleus politissimus and the Lycus equalis) near the Villa da Praia, namely beneath the loosened bark of this particular kind of Fig.—which looks certainly as if they had some special connexion with it; whilst the flattened body of Arthrolips may possibly tend to imply that it, after all, is strictly of subcortical habits.
often clothed with it), we might perhaps have expected that it would support a considerable fauna of its own—more especially since its soft-wooded stems appear at times to be riddled through and through by some special Coleopterous parasites. At any rate I anticipated as much myself, and was rather disappointed therefore at being seldom able (despite its promising appearance) to discover anything at all which seemed to be attracted to it. And I may add that this is borne out precisely by the experience of Mr. Gray. Still it is clear, from the manner in which its dead branches are occasionally perforated, that it must have at any rate a few beetle-dependents; and from the fact that I have in one or two instances (as at Madeiral, in S. Vicente) seen it completely devoured by multitudes of the little Cryphalus muevonifer (which, be it observed, we took, passim, in most of the islands), I am inclined to suspect that that is the particular creature which does the work of destruction amongst these most uninteresting shrubs. Once however, in the Ribeira da Babosa of S. Antonio, I met with many fragments of a Lyctus which had been feeding within the decayed wood of an old Jatropha-stump; and it is possible therefore that, at a different season of the year, we might find that species also in connexion with it. But, up to the present date, I have no evidence of any other Coleopterous forms which are attached to the shrubs of the Physic-Nut; and perhaps indeed, after all, this is to a certain extent in accordance with the fact that the Jatropha, although now so common, is not indigenous in these islands, but has been planted for the purposes of commerce.

General Considerations.—Although it would perhaps be premature, until the outlying portions of the Group have been examined, to attempt to generalize accurately concerning the beetle-fauna of the Cape Verdes, yet I think that even the data which have already been accumulated are abundantly sufficient to justify a few passing

* This Lyctus, judging from its fragmentary remains, is very closely allied to the L. brunneus, Steph.,—an insect which is occasionally introduced, along with certain articles of commerce, into various countries, and which occurs (though whether it be truly indigenous, or not, I can scarcely tell) in both the Madeiran and Canarian Groups. I think however that sufficient differences are indicated (even in these broken specimens) to render it probable that it is not actually identical with that species, and I have therefore described it as distinct under the name of L. jatrophae. But at any rate its near affinity with the brunneus might well suggest a doubt as to whether it may not have been naturalized in the Cape Verdes—if not with the Jatropha-plants themselves, by at all events some other (accidental) means.
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remarks on certain primary peculiarities about which it seems scarcely possible to be mistaken. In reviewing, then, what has already been written, and taking a cursory glance at the large amount of material from which the present Catalogue has been compiled, the first fact which appears to strike us as surprising is—that, in an archipelago situated thus far within the Tropics, the character of the Coleoptera should, on the whole, be so much more northern than we might have been prepared to anticipate. Of course it cannot be asserted that this was equally the case before the islands had been reduced to the dry and depauperated condition in which we now find them; but it is conspicuously true that the List, as here indicated, exhibits so small an amount of "tropical" types that one can scarcely persuade one's self that it does really pertain to a country the position of which is so much more southern than either the Canaries or Madeira. Certain species there unquestionably are in which an essentially "African" element is more traceable than is the case in those comparatively northern clusters; but, in spite of this, there are not more than about three forms (out of the 278) which immediately proclaim themselves to be bona fide, and without doubt, tropical. The three to which I allude are that large Gyrinid (so widely spread throughout central and subnorthern Africa) the *Dineatus orca*, the *Diplognatha gagates* (a Cetonid which ranges from Senegal to the Cape of Good Hope, and which may perhaps have been naturalized in the island where it occurs), and that beautiful member of the *Cassididae* the *Aspidomorpha cineta*—which, likewise, is common in the opposite regions of the African continent. Possibly indeed I might associate with them the Hydradephagous genus *Copelatus*, and the Brachelytrous ones *Pinophilus* and *Palaminus*; for they also are chiefly tropical in their distribution, and even the other three, although most at home within the subequatorial districts, do occasionally extend (at any rate the first two of them) into those which are somewhat more temperate.

But by far the most interesting problem (arising out of our present subject) which offers itself for notice is the one which bears par excellence on the physical geography of the archipelago; and here, therefore, I would tread with caution,—for rash inferences are apt to do permanent mischief, and it is better to leave generalizations alone unless we can command sufficient data to render them tenable. On purely theoretical points I shall consequently keep silence, and confine myself merely to a few questions which
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seem as it were to stand out from the rest and challenge a discussion. Of course the great enigma which occupies the foremost rank, meeting us at the very outset, and from an attempted solution of which we cannot escape, has reference to how far the Cape Verde Group (as indicated by its Coleopterous fauna) is bound up with those (placed, as they are, so monstrously to the north of it) which constitute the Canaries and Madeira; and it is fortunate, therefore, that so far as the beetle-population of at least those clusters are concerned, we have a tolerably accurate knowledge, which may tend to help us in the present inquiry. When examining, in my 'Coleoptera Atlantidum,' the evidence with which the particular subject-matter of that volume appeared to furnish us for the *quondam* union of the various outlying islands of the Madeiras, Salvages, and Canaries, I laid primary stress upon the fact that, while the most characteristic *types* seem to permeate the entire archipelago, they are in most instances represented on the different islands and islets by what we are compelled to regard as different "species;" and I thought that this (in conjunction with many other circumstances, fully entered into) had a significant bearing upon the breaking-up of a once-continuous tract—because if forms which had overrun the latter were, by some sudden natural catastrophe, to be cut off into separate assemblages, and be compelled for ever afterwards to remain asunder, *one* of the almost inevitable results would be a *certain amount of external modification* (for the most part trifling and restrained within fixed limits) consequent upon the change, and upon the formation of many distinct "habitats" (differing widely *inter se*, and some of them greatly depauperated) out of the original, larger *one*. And I supported this idea by an appeal to the statistics—which showed incontrovertibly that while the *genera* of the two archipelagos are on the whole pretty much the same (at least as regards those which are most remarkable and esoteric), the "species," on the contrary, common to the Groups are so exceedingly few in number that, out of 661 detected in the Madeiras, and 1007 in the Canaries, *only about 200* (exclusive of a few which had been introduced through the medium of commerce) seem to belong equally to *them both*. So that the question appeared, to my mind, to turn more upon a geological *possibility* than on anything else; for if subsidencies sufficiently gigantic could be admitted as *possible*, and might therefore be assumed to have taken place, I felt that it required no stretch of the imagination to conclude *that a very large*
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majority of such minute insular departures from a central form as those which we now meet with would have resulted from them as a matter of course, and would have been rapidly matured from their respective types *.

Now these observations, which I made in 1865, concerning the Madeiras and Canaries seem to me to be quite as applicable to the Cape Verdes—and, moreover, not only to the cluster in its component parts, but also to it as a whole (when considered in connexion with those which are placed so much further to the north). And, in

*I say "rapidly matured" because I have no reason to think that the small insular modifications to which I refer are the product of that slowly accumulating infinitesimal divergence, in a given uniform direction, which certain modern theories would suppose to be unceasingly going on throughout indefinite time, but which seems to me, in nine cases out of every assumed ten, to have no existence in the feral world. Such a process may occasionally be kept up by the persevering intervention of a true controlling cause, such as that which is implied by the skill and intellect of man; but we have no evidence that "nature" (whatsoever the term may mean) is able to accomplish a task thus difficult, and which requires not only sagacity and design, but, in instances where το καλον is the special end to be attained, even imagination (in its highest sense). I need scarcely add that a denial of this supreme power as inherent in "nature" is perfectly compatible with a belief in those modifying external influences which all experience assures us are ever liable to act, within reasonable limits, and to leave their impress, upon organic structures, in accordance with the exact amount of pliability which has been allotted to each separate species; for this is totally distinct from that selective capability which we are accustomed to regard as an integral part of free agency and will. Mere variation we all know to be a fact; and, even if its importance is by some exaggerated, no one has ever yet questioned its existence: but I believe it can be seldom be said to "accumulate" during more than a few generations, or ever to go on increasing in an undeviating course after the effect has been accomplished which is legitimately due to the combination of circumstances which occasioned it. Towards the close of my introductory observations in the 'Coleoptera Atlantidum' I cited the Madeiran Land-shells in support of this thesis, showing that, so far at least as they are concerned, we possess ocular demonstration that they have not altered during the enormous interval which must have elapsed since the commencement of their subfossil era, except that the size of a few of them appears to have been suddenly reduced (for there are no traces of the intermediate grades of stature, which must have been preserved under any process of a gradual dwindling-down), as though consequent upon some physical catastrophe, or depauperation, in the areas over which they had spread; and this, supported by other considerations, led me to infer that the many trifling insular departures which we meet with, from a central type, were not, in all probability, brought about by any slow and imperceptible method of long-continued, cumulative change, but in a comparatively short period (terminating when the natural conditions of the newly-acquired habitats had ceased to alter), and perhaps through the partial breaking-up of this vast Atlantic province. At least some such inference seems borne out in many ways, and to accord with the twofold fact that, while these trifling insular aberrations are everywhere conspicuous, we have at the same time most unmistakable evidence of what I may almost call the unchangeability of a large proportion of the present forms. And although it is true that my remarks arose out of Madeiran data, I am satisfied that they are equally applicable to the whole of these Sub-african oceanic Groups.
proof of this, I might again allude to the statistics; for out of 169 genera which have been brought to light in the Cape Verdes, no less than 123 are found in the higher archipelagos—whereas of the 278 species hitherto met with, only 107 are in that predicament. Or, in other words, while the general character of the Coleopterous fauna is marvellously the same as that of the Canaries and Madeira (despite many omissions, some of which may yet be supplied, and a few southern additions), a comparatively small proportion of the "species" are identical with the species of those Groups. I say "comparatively," because the number 107 is in real truth, out of 268, an exceeding large one, and implies a wonderful agreement between the very species of the Cape Verdes and those of the more northern archipelagos; but, great as the coincidence is, it seems absolutely insignificant when contrasted with that of the genera—as many as 123, out of 169, obtaining in the Madeiran and Canarian islands also! Here, then, is a most remarkable fact,—namely, that the amount of similarity between the beetles of the Cape Verdes and those (combined) of the Madeiras and Canaries is even greater than that which exists between those of the two archipelagos last mentioned—and this, moreover, despite the comparatively monstrous distance which separates the former Group from these more northern ones! Surely with such overwhelming evidence as this, which mere numbers supply, I need scarcely appeal to the peculiarity of a large proportion of the types which permeate the three clusters, in illustration of the intimate manner in which the latter appear to be connected amongst themselves. Yet the significance of such forms as the almost blind, and apterous, Ant-associating Cossyphodes (which bids fair to be discovered, sooner or later, on every one of these widely-scattered islands), of the sand-infesting Pentatennus (likewise wingless and with but rudimentary eyes), of Piarus and Microptinus (so essentially Canarian), of Cratognathus (which, under some exponent or other, is seldom absent from these various oceanic Groups), of the large Ditylus pallidus (a precise counterpart of the Canarian and Salvages D. concolor), and of the Euphorbia-destroying Aphananarthrum, Liparthrum, Mesites, Lamphleseus, Notionimus, and Microclerus, besides a host of others, will readily be appreciated by every geographical entomologist who is acquainted with the affinities and economy of their several Atlantic representatives. At any rate, to my mind, the universal occurrence of such types as these, in conjunction with that striking general similarity (and, to a
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great extent, even specific identity) of the whole Coleopterous popu-
lation of the three separate archipelagos, added to the irresistible
impression which is left by the agreement of the latter as regards
most of their physical peculiarities and phenomena, down to their
very geological structure and their position with reference to the
African continent, all combine to proclaim the islands to be but
outposts of a single gigantic province which has been rent asunder
and is now principally submerged.

With this broad statement of the conclusions which the beetle-
fauna of these three scattered archipelagos would appear to war-
rant,—conclusions which have been arrived at while ignoring
purposely all reference to geological difficulties (which may, or
may not, be insuperable), it might suffice for me to bring my
introductory chapter to a close, were it not desirable to add a few
general remarks on the amount of connexion which the Cape Verde
Coleoptera seem to possess with those of other countries extraneous
to the Madeiran and Canarian Groups. But, considering how im-
perfect our knowledge of the African fauna is, I would scrupulously
avoid any rash generalizations from data which are insufficient; and
when we take likewise into account the possibility that a certain
quota of what I have been compelled to regard as distinct species
may prove eventually to be but insular phases of others which are
elsewhere known, it becomes doubly necessary to proceed with cau-
tion, and to speak only approximately on points which relate to
numbers and statistics. After giving full weight however to these
two facts, and making reasonable allowances for both of them, I
cannot satisfy myself that more than about 130, out of the 278 species
which have hitherto been detected in the Cape Verdes, are found (or
perhaps are likely to be found) on the African continent; whilst
even of these the majority appear to occur rather in northern Africa
(ranging from Egypt, where there are at least 80 of them, through
Algeria, and down the western provinces) than, so far as I can judge,
south of the Sahara: and this, I believe, is pretty much in accord-
ance (relatively) with what obtains in the Canarian archipelago, or
at any rate is but slightly more African. With southern Europe I
do not think that the Cape Verde list (as at present ascertained) has
more than about 65 species in common; and with America distinc-
tively (if we except the single genus Palaminus, which possibly may
have been naturalized in the islands) it seems to have nothing what-
ever to do; but the very slight sprinkling of "tropical" forms
(already commented upon) which it includes bespeaks a certain small amount of real affinity with central Africa. Hence we gather that its "African" element is *principally* of a subnorthern, rather than a tropical, character (though certainly, on the whole, a *little* more southern than what is indicated in that of the Madeiras and Canaries); whilst, at the same time, the number of its most remarkable and suggestive forms which also permeate the higher archipelagos, and do not appear to extend beyond them, is so considerable that what I may be permitted to call the "Atlantic type" is undoubtedly (when taken in connexion with Atlantic *deficiencies*) the most striking feature which it presents.
COLEOPTERA HESPERIDUM.

Fam. 1. CICINDELIDÆ.

Genus 1. CICINDELA.
Linnæus, Syst. Nat. ii. 657 (1767).

1. Cicindela hesperidum.

C. angustula, capite prothoraceque late viridescente, cuprescente et ænescente variegatis; labro mandibularumque basi dilute testaceis, illo brevi antice truncato et dente medio minutissimo armato; oculis intus subangulatim emarginatis; elytris obscurioribus, asperato-punctatis, lunulâ humerali apicalique neenon punctis 4 (duobus anterioribus confluentibus) testaceis ornatis, ad apicem distincte serratis et singulatim leviter rotundatis, suturâ (atque etiam circa scutellum) subelevatâ. — Long. corp. lin. 4–5½.


Habitat S. Vicente; à DD. Gray et Clark, Decembri 1856, deprehensa.

Obs. — Species C. littorali affinis; sed minor, angustior, maculis vix similibus pallidioribus; elytris rugosius punctatis, ad apicem magis fortiter serratis, singulatim rotundatis et spinula suturali mediâ majore terminatis, suturâ antice magis elevatâ (costâ etiam circa scutellum continuatâ); capite, prothorace pedibusque latius cuprescentibus; oculis intus paulo magis angulatim emarginatis; labro breviore, antice magis truncato, in medio haud sinuato et denticulo molto minore instructo; mandibulis vix minoribus, ad basin externam brevius albidis; antennis paulo gracilioribus, artº 1° minore; femoribus gracilioribus, corporeque subtus fere impunctato.

The two specimens which are now before me of this Cicindela were captured by Mr. Gray and the Rev. Hamlet Clark, during their day's sojourn at S. Vicente, in December 1856. They were taken in a low spot, behind the sea-beach, about a mile to the south of Porto Grande
CICINDELIDÆ.

(where the species appears to have been rather abundant); and I have examined others, from the collection of Mr. A. Fry. Owing however to the lateness, and unusual dryness, of the season during our recent expedition, we did not meet with it. It is not impossible that it may be, in reality, but a geographical phasis of the widely-spread C. littoralis—which is found in the south of Europe, the Levant, in various parts of Africa, and even in Siberia; but since it possesses a number of small characters which distinguish it from that insect, and I have already separated it therefrom, I will not re-amalgamate the two. And in that case, perhaps, I cannot do better than cite the observations which I made concerning it (in the 'Ann. of Nat. Hist.') in 1861.

"A single example of this Cicindela, which I forwarded to Berlin three years ago, was regarded by Dr. Schaum as a variety of the widely-distributed C. littoralis; and, indeed, did its only differences from that insect consist in size, colour, and the slightly altered proportions of its paler patches, I should certainly have been of the same opinion myself. But the subsequent comparison of a large number of examples with types of the littoralis from Northern Africa has brought to light so many constant, and even structural, distinctions (however small) that I cannot but receive them, in conjunction with those less important ones of external contour, as of specific signification. Thus it is not merely smaller than the littoralis, more brightly metallic in parts, and with the spots paler and rather differently proportioned, but its elytra are more roughly punctured, much more evidently serrate at their apex, and separately rounded-off, causing the spiniform termination of the suture to be larger. The suture also is more raised, particularly in front, where the elevation is continued round the hinder portion of the scutellum; its eyes are rather more angularly emarginate internally; its antennae and femora are somewhat slenderer (the former having their basal joint, especially, less robust); its mandibles are not quite so elongate, and with the white stripe at their outer base shorter; its body beneath is almost impunctate; and its upper lip is very differently constructed—being not only much shorter, but more truncate in front, unsinuated in the middle, and with a much smaller central tooth."

2. Cicindela ægyptiaca.

C. precedentii sensim magis (tamen obscure) viridis, præcipue virecente et cupreo irrorata—sc. elytrorum punctis (minus asperatis)
Cicindelidē." 3

viresentibus sed intervallis lāte cuprēo et obscurius subae- ncente tinctís; elytris lunulā tenuī humerali apicālique (hāc in superā parte ampliāto-irregulari), fasseā tenuī externā media arcuatā (in disco lāte interruptā), maculāque laterāli postmediā, omnibus per marginem lateralem fere connexis, necnon maculā parvā discali rotundatā ante medium (et ultra apicem lunulē humeralis) sitā, albīdo-testaeīs ornatis.—Long. corp. lin. circa 5.

Cicindela aegyptiaca, (Klug) Dej., Spec. Gén. des Col. i. 96 (1825).


Habitat S. Vicente, et S. Iago; hine inde in inferioribus.

The remains of a Cicindela, from which I have drawn out the above diagnosis, were taken by Mr. Gray in the Palm-grove adjoining the eastern outskirts of the Villa da Praia, in S. Iago; and, judging from the description of that species, as well as from an Egyptian and Sicilian type, I have little doubt that it is the C. aegyptiaca—which, I may add, is recorded by Erichson amongst his supposed "Angolan" Coleoptera, many of which however were in reality from these islands (and not from Angola at all). The number of wing-cases which were present in that particular locality would seem to imply that the insect may be common at the proper time of the year; but our cruise having been undertaken too late in the season, which moreover was an unusually dry one, we did not obtain it in a living state.

Unfortunately I have not now access to some examples of a Cicin-cida which were captured formerly by Mr. Fry in S. Vicente, and which (in 1861) I identified with the C. vicina which occurs on the opposite coast of Africa; but I feel tolerably sure that the S. Vicente individuals must be conspecific with this one, from S. Iago, and I am now sufficiently satisfied that the latter (at all events) is the aegyp-ticae rather than the vicina. At any rate the two species themselves are so nearly allied inter se that it is far from impossible that they may be but modifications of a single type found on opposite sides of the African continent; though, on the other hand, if this should be the case, it would seem more likely à priori that the Cape Verde Cicindela would be identical with the one from Senegal, than with that (to which I have referred it) from Egypt.

Whether referable however to the aegyptiaca or vicina (and, as just stated, I feel pretty sure that it coincides with the former), the present Cicindela, although of a dull hue, is distinctly greener and more metallic than the C. hesperidum; and its elytra (the punctures of which are less asperate) have their markings slenderer and differ-
ently shaped—the (very much narrower) lunate humeral one having an *additional* rounded, detached spot (at a little distance from its extremity) on the fore disk; whilst the medial transverse band of the *hesperidium* (formed by the suffusion of two large patches) is here replaced by a comparatively thin and backwardly-curved streak, which terminates posteriorly in a *detached* comma-shaped streak, which represents the rounded spot on the inner hinder disk of the *hesperidium*.

**Fam. 2. CARABIDÆ.**

(Subfam. I. CARABIDES.)

Genus 2. **CALOSOMA.**


3. Calosoma senegalense.

*C. obscure aeneum; capite prothoraceque dense et distincte punctulatis, neon transversim rugulosis, hujus angulis posticis vix productis sed argute determinatis; coleopteris costato-lineatis, grossissime transversim imbricatis, in interstitiis grosse uniseriatis tuberculatis, punctis late metallicis in triplici serie utrinque ornatis; tibiis posterioribus masculis leviter curvatis.—Long. corp. lin. 11-12.*


**Habitat** S. Vicente, S. Iago, Fogo, et Brava; passim.

The dull brassy hue and most coarsely sculptured, longitudinally-costate elytra of this large *Calosoma*, which has its hinder prothoracic angles scarcely at all produced, will readily distinguish it from the two following species. It appears to be widely distributed over the archipelago, where indeed (as it occurs likewise on the African continent) we may expect that it will be found ultimately to be universal; but as our late cruise was undertaken during one of the driest seasons of the year, we did not obtain it at all in a living state. I took its remains, however, in S. Iago, Fogo, and Brava; and it was captured formerly in S. Vicente by Mr. Fry.

4. **Calosoma tegulatum**, n. sp.

*C. nigrum; capite prothoraceque dense sed pauno levius punctulatis, et saepius paulo minus rugulosis, hujus margine antico magis sinuato et angulis posticis productis sed rotundatis; coleopteris punctato-striatis et levius transversim imbricatis, interstitiis con-
vexis, punctis metallicis in tripli serie utrinque ornatis; tibiis posterioribus masculis sat distincte curvatis.—Long. corp. lin. 10–11.


A *Calosoma* which we may be pretty sure is, during the proper season of the year, quite as universal as the other two. I met with mutilated portions of it in S. Antão, S. Vicente, and Fogo; and some fine examples have lately been communicated from S. Vicente by Mr. Miller, the English consul for the Cape Verdes. Mr. Miller's specimens were taken at Areia Branca, and he describes the odour emitted by them (after the fashion so common amongst the Calosomas) as exceedingly strong and pungent. Although a large species, it is intermediate in size between the *senegalense* and the *imbricatum*; and it is also blacker than either of them, and less roughly sculptured—its elytra being punctate-striate, and less coarsely imbricated transversely; and its prothorax has the anterior margin more sinuate, with the hinder angles (although a good deal produced) more rounded or obtuse.

I have not access now to Mr. Fry's types, but I feel almost sure either that this is the species which was taken formerly by him in S. Vicente, and which I cited in the 'Annals of Nat. Hist.' as the *Maderre* (or, which is the same thing, *indagator*) of Fabricius (and which Dr. Schaum must have wrongly identified subsequently with Heer's *C. azoricum*), or else (which I am inclined to think is more likely still) that Mr. Fry's examples were the veritable *azoricum*, but were not captured in the Cape Verdes at all. And this latter supposition is the more probable, since Mr. Fry did actually obtain the *C. azoricum* in the island of Terceira, on his homeward route to England,—so that there is a fair possibility of his having inadvertently mixed up, afterwards, one or two of his Azorean specimens with those from S. Vicente. At any rate, until positive evidence has been brought to light, I prefer either of the above hypotheses to the risk of perpetuating what may perhaps be a serious topographical blunder—for the sake of augmenting the present Catalogue, by admitting into it a more northern form concerning the true existence of which in those islands I have, to say the least, considerable doubt*.

* From the *C. indagator*, which occurs sparingly in Mediterranean latitudes, and which is common in the Madeiran and Canarian Groups, the *C. tegulatum* differs in being on the average a little smaller and less shining, and in its prothorax being not quite so thickly punctuated, whilst the sculpture of its elytra
5. Calosoma imbricatum.

C. nigrum, plus minus aeneo-virescente tinctum; capite prothoracique dense et sat distincte punctulatis, necon transversim rugulosis, hujus angulis posticis subacutus productis; coleopteris (ad humeros vix rectioribus) subundulate obscurius punctato-striatis et grosse transversim imbricatis, interstitiis convexis, punctis metallicis in triplici serie utrinque ornatis; tibii in utroque sexu fere rectis.—Long. corp. lin. 8–9.

Calosoma imbricatum, Klug, Symb. Phys. iii. pl. 23. f. 11 (1830).

Habitat S. Vicente, S. Iago, et Brava; hince inde, præsertim in inferioribus.

It is only in S. Vicente, S. Iago, and Brava that this Calosoma has been observed, but in all probability it will be ascertained to be general throughout the archipelago. It was found by Mr. Gray in a living state, during his former cruise, near the Villa de Praia in S. Iago, and near the Porto da Furna in Brava—in both of which localities we met with the remains of it during our late expedition; and it was taken, several years ago, in S. Vicente by Mr. Fry. It is smaller than the C. senegalense and tegulatum; and in colour and sculpture it is somewhat intermediate between them—being black, with a slight greenish-brassy tinge, whilst its elytra are much less coarsely imbricated than those of the former, but more so than those of the latter. Its striae are more undulated, and less conspicuously punctured than in the tegulatum; the hinder angles of its prothorax, although about equally produced, are more acute; and its male tibiae are appreciably less curved.

(Subfam. II. SCARITIDES.)

Genus 3. DYSCHIRIUS.

Bonelli, Observat. Entom. i. (1809).

is very much coarser—their striae being considerably deeper, the punctures considerably larger, and the transverse imbrications (or rugae) both more conspicuous and less undulated. From the C. azoricanum it may be known by its prothorax (which has the front margin more sinuate, the hinder one unthickened, and the basal angles more produced) being a little broader and less abbreviated, and not quite so subangulate on either side in the middle—by its elytra being much more coarsely sculptured (their striae being considerably wider, deeper, and more strongly punctured, their interstices convexer and more straightly and largely imbricated, and their longitudinal impressions conspicuously more developed and less metallic)—and by the four posterior tibia of its male sex being, as in the C. indagator, rather powerfully curved. It is consequently more allied to the indagator than to the azoricanum.
6. Dyschirius auriculatus, n. sp.

*D. elongatus*, nigro-ænens; capite prothoraceque paulo nigrescentioribus, illius elypeo in medio recte truncato, utrinque in angulum (vel lobum) auriculiformem magnum porrectum produeto, hóc convexo ovato; elytris cylindricis, punctato-striatis, striis ad basin ipsam evanescentibus, prime puncto basali (sc. juxta scutellum) obsoleto, interstitio tertio punctis 3 longitudinaliter notato; antennis brevibus, ferrugineis; pedibus piceis, tibiis antîcis extus minute tridenticulatis.

—Long. corp. lin. 2½

Habitat S. Vicente; in luto Salini ejusdam parvi juxta mare siti, Februario exeunte, bis deprehensus.

Obs.—Species *D. extensus*, Putz., europæo, primâ facie valde affinis, sed antennis sensim brevioribus, tibiis antice extus bispinulosis (nee integris), elytrisque minus profunde punctato-striatis, striis ad basin ipsam evanescentibus necnon puncto basali (juxta scutellum) obsoleto differre videtur.

Two examples of this large and cylindrical *Dyschirius* were taken by myself, at the end of February 1866, in S. Vicente—on the slimy mud of an old Saltern, in a flat and sandy spot immediately behind the sea-beach, about a mile to the south of Porto Grande. It bears so close a resemblance, at first sight, to the *D. extensus* of more northern latitudes that it might well nigh be regarded as a permanent geographical state of that species; nevertheless its distinctive characters, although small, are so decided that I feel sure it would be most unsafe to treat it practically as such. Thus its anterior tibiae (instead of being simple) are armed with two minute spinules on their outer edge, its antennae are appreciably shorter, and its elytra, which are less deeply sculptured, have their striae evanescent at the extreme base, as well as the punctiform impression from which the first and second striae usually arise obsolete.

(Subfam. III. LEBIADES.)

Genus 4. PLATYTARUS.


7. Platytarus Faminii.


Habitat S. Vicente, mihi non obvius; à Dom. Fry mense Octobri captus.
Five examples of this Mediterranean insect have been communicated by Mr. A. Fry, by whom they were taken "under grass" at S. Vicente during the month of October. They seem to be truly referable to the *P. Faminii*, and not to the *mauritanicus* (as I should rather have anticipated) from northern Africa.

**Genus 5. TARUS.**

*Clairville, Ent. Helv. ii. 94 (1806).*

8. *Tarus alutaceus*, n. sp.

*T. rufo- (rarius nigro- ) brunneus, in limbo dilutior, depressus, alutaceus, subopacus; prothorace subquadrate-cordato, ad latera late explanato, angulis ipsissimis posticis angulatim exstantibus, versus basin et latera punctis levibus parce rotundatis; antennis, palpis pedibusque brunneo-testaceis.—Long. corp. lin. 3\(\frac{1}{2}\)–vix 4.*

*Habitat* S. Nicolão; sub lapidibus in summo monte “Gordo” elevato, mense Februario a.d. 1864 ceperunt DD. Gray et Lowe.

Several examples of this fine *Tarus* were taken by Mr. Gray and the Rev. R. T. Lowe, from beneath stones, on Monte Gordo, the highest peak in S. Nicolão, during February 1864. Its large size, reddish-brown hue, and alutaceous (but almost unpunctulated) surface, combined with its rather wider and more margined prothorax, and the somewhat more obtusely rounded humeral angles of its slightly wider elytra, will readily separate it from the following two species.


*T. praecedenti affinis, sed omnino subangustior, paulo obscurius coloratus, ac sensim nitidior (aut minus alutaceus); prothorace ad latera minus explanato-recurvo, necnon versus basin et latera rugosius parce punctato; elytris subcrenulato-striatis, in interstitiis punctulis minutissimis levissimis parvisimis parcissime irroratis.—Long. corp. lin. 3\(\frac{1}{4}\).*

*Habitat* S. Antão; in montibus septentrionalibus exemplar unicun cepit cl. H. Dohrn, M.D., cuius in honorem nomen triviale proposui.

It is possible that this may represent but a permanent insular state of the preceding species, peculiar to S. Antão; but as the only example from which I have to judge, and which was taken by Dr. H. Dohrn on the mountains towards the north of that island, possesses undoubted characters of its own, I do not think it would be
safe to treat it practically as such. I have therefore retained it as distinct, dedicating it to its captor. It appears to be a trifle narrower and more shining than the *alutaceus*, and altogether a little darker in hue; its prothorax is less broadly margined at the sides, and with the punctures coarser and deeper; and its elytra have their striae perceptibly (though finely) crenulated, their interstices sparingly sprinkled with *very* minute, shallow punctules, and their basal *rim* slightly less curved, and less elevated, towards the scutellum.

10. *Tarus anchomenoides*, n. sp.

*T. pallide rufo-ferrugineus*, vel *brunneo-testaceus*, *subconvexus*, nitidus, minutissime sed parce punctulatus; prothorace angusto, subcordato, ad latera anguste marginato, angulis posticis obtusis (hand prominentibus); elytris abbreviatis (apice late truncatis), subventricosis, leviter striatis, margine basali mox intra humeros (quare longe ante scutellum) evanescente; antennis, palpis et presertim pedibus pallidiorebus.—*Long. corp. lin. 2\(\frac{1}{3}\)—vix 3.

*Habitat* S. Vicente; sub lapidibus quisquiliisque in montibus occurres.

Readily known from the two preceding species by its smaller size, pale rufo-ferruginous hue (particularly of the elytra), and its convexer, rather more shining surface—which is very sparingly be-sprinkled with exceedingly minute and shallow punctules. Its prothorax is narrow and subcordate, and less recurved at the sides (the lateral margin only being thickened), and with the extreme hinder angles *not* produced into a minute denticle; and its elytra are subventricose, much shortened posteriorly, and with their basal rim carried round the humeral region merely and there terminated, instead of being continued so as to meet the short scutellary stria. Like the other *Tari*, it appears to occur only in the higher elevations, and (so far as observed hitherto) only in S. Vicente—where it was captured by Mr. Gray and myself, during January 1866, beneath stones and refuse, on the extreme summit of Monte Verde.

Genus 6. **DROMIUS**.


11. *Dromius attenuatus*, n. sp.

*D. testaceus*, nitidiusculus, *haut* punctatus; capite ovali; prothorace angusto, subcordato, canaliculato, angulis posticis *haut* prominulis sed rotundate subrectis; elytris ellipticos, apice truncatis,
antice attenuatis, fere simplicibus (rarius obsoletissime substriatis), per suturam necnon in fasciā postmedia, utrinque valide abbreviātā, plus minus obsoletā, obscurioribus.—Long. corp. lin. 1\(\frac{3}{4}\).

*Habitat* S. Vicente; sub quisquiliis in montibus, rarissimus.

In general affinity this pallid *Dromius* belongs to somewhat the same type as the Canarian *D. amoenus*; nevertheless it is much smaller and paler than that insect, its prothorax is more sinuated in front of the hinder angles, and its (elliptical) elytra are almost unstriated, more narrowed (or drawn-in) anteriorly, but nevertheless with the *extreme* humeral angles themselves better defined (or less rounded off), and with the obscured portions (which are often barely traceable) very much paler,—the postmedial fascia, moreover, being so much abbreviated on either side as to assume (in combination with the clouded suture) more the form of an elongated hastate mark (as in the European *D. longiceps* and others) than of a transverse band. Yet an accurate inspection of it, simultaneously with the *D. amoenus*, and other species, would seem to imply that this slightly darkened postmedial clound is in reality occasioned by a *lateral*-abbreviated fascia.

The *D. attenuatus* is evidently very scarce, and confined chiefly to lofty altitudes,—a few specimens of it having been taken by Mr. Gray and myself, during January 1866, from beneath refuse, on the extreme summit of Monte Verde in S. Vicente. We likewise met with it however, though sparingly, at a lower elevation, at Madeiralzinho, in the same island.

12. *Dromius submaculatus*.

*D. niger*, interdum obsoletissime (vix perspicue) subæneo tinctus, alutaceus (aut potius subtilissime transversim reticulatus) sed tamen nitidiusculus; prothorace brevi, transverso, canaliculato, intra angulos posticos (subprominulos, recurvos) profunde impresso; elytris convexiusculis, obsolete striatis, maculā humerali plus minus obscūrā suffusā testaceore utrinque ornatis; antennis, palpīs pedibusque breviusculis, gracilibus, plus minus saturete testaceis.—Long. corp. lin. 1\(\frac{1}{4}\)–1\(\frac{1}{2}\).


*Habitat* S. Antão, S. Vicente, S. Iago, et Fogo; in inferioribus sed principi intermediiis, sub quisquiliis foliisque aridis, necnon circa radices graminum, late diffusus.

The short, transverse prothorax of this *Dromius*, in conjunction
with its somewhat brassy-black hue, the suffused, more or less obscure, paler blotch at the shoulder of each elytron, and its rather abbreviated, but slender, diluted-testaceous limbs, will at once separate it from everything else with which we have here to do. In its general contour and colouring it more resembles a Metabletus of the obscuroguttatus and patruelis type than a true Dromius; but as its mentum is quite toothless in the centre, it cannot be referred to the former of those groups.

The D. submaculatus is widely spread over the archipelago, and will most likely be found to be universal,—occurring beneath dead leaves and refuse, and around the roots of dry grass, chiefly at low and intermediate altitudes. The first examples of it which came under my observation and from which the original diagnosis was compiled, were taken by Mr. A. Fry, many years ago, during the month of October, in S. Vicente—in which island I have myself captured it (principally at Madeiralzinho), as well as in S. Antão (at Tarrafal, the Ribeira Fria, and the Ribeira das Patas), around the Villa da Praia in S. Iago, and at the Pico Pires and Monte Nucho in Fogo; in all of which, except the last, it was found likewise by Mr. Gray.

Genus 7. METABLETUS.

13. Metabletus Grayii, n. sp.

M. niger, æneo tinctus, alutaceus sed tamen nitidus; prothorace quadrato-cordato, canalienculato, intra angulos posticos (subprominulos, recurvos, obtusos) late impresso; elytris obsolete striatis, apice trisinuatis, in plagâ obliquâ humerali, margine laterali fasciâque transversâ apicali magis testaceis; antennis, palpis pedibusque testaceo-piceis.—Long. corp. lin. 2–2 1/4.

Habitat S. Nicolão; in montibus excelsis a Dom. Gray lectus, eujus in honorem speciem citavi.

A large and beautiful Metabletus on the patruelis and obscuroguttatus type—being more allied to the former in markings, and to the latter in general contour. It is however very much larger and more senescent than either of them, and its elytra have their shoulders more obtusely rounded and their apical margin more sinuate. So far as colouring is concerned, in addition to the oblique humeral patch which is common both to the patruelis and obscuroguttatus, it possesses the apical fascia and diluted lateral margin (but not the longitudinal discal dash) of the former; and its elytra are relatively a
little shorter than is the case in that species. Six examples of it were taken by Mr. Gray, during February 1864, towards the summit of Monte Gordo—the highest mountain in S. Nicolão; and I have much pleasure in dedicating it to its captor—whose accurate entomological researches have, in conjunction with my own, supplied the greater part of the material from which the present volume has been compiled.

Genus S. BLECHRUS.

Motschulsky, Bull. de Mosc. iii. 219 (1847).

14. Blechrus strigicollis, n. sp.

*B. niger*, elytris magis testaceis; capite prothoraceque obsolete aeneo tinctis, subnitidis, subdepressis, illo subtriguloso-granulato, hoc subcoeratulo, angulis ipsissimis postieis prominulis, per disum grosse longitudinaliter strigosos; elytris parallelis, abbreviatis, leviter striatatis, saturate testaceis sed in limbo (præsertim circa scutellum) plus minus nigrescentibus; pygidio nitidissimo, nigro-aeneo; antennis, palpis, femoribusque piceis, tibiis tarsisque testaceis, alutaceis, leviter striatis, saturate testaceis sed in limbo (presertim circa scutellum) plus minus nigrescentibus. — *Long. corp. lin. 1 1/4.*

Habitat S. Antão, S. Vicente, et Fogo; sub lapidibus necnon circa radices graminum in locis paululum elevatis (rarius in omnino inferioribus) degens.

In size and general aspect the present *Blechrus* has perhaps more in common with the European *B. plagiaetus* than with any other species: indeed a believer in the full doctrine of development might recognize in the pale elytra of the *strigicollis* a mere enlargement of the testaceous blotch which usually adorns the two elytral disks of that insect. Yet in reality this is but a superficial view to take; for there are additional characters in abundance to distinguish it, one or two of which are almost anomalous. I allude especially to the peculiarity of sculpture, which is quite unprecedented in any of the *Dromii* (and allied forms) with which I am acquainted; for the conspicuous (but sometimes broken) longitudinal strigae which occupy the entire space down the middle of its prothorax, in conjunction with its coarsely granulated head (on the forehead of which smaller and fainter strigae are likewise traceable), are exceedingly curious. Its elytra are alutaceous and very short (being much truncated behind); but its pygidium (as in the *Blechri* generally) is remarkably brilliant, and with a strong senescent lustre.

The *B. strigicollis* seems to reside principally at the roots of grass
and under stones, in arid spots at a few hundred feet above the sea —apparently not ascending into the highest districts, and but seldom occurring in the very lowest. It was taken by myself in S. Antão and S. Vicente, and by Mr. Gray in the latter island and Fogo. My S. Antão specimens are from Tarrafal and the mountains above the Ribeira Fria and the Ribeira da Babosa; whilst the S. Vicente ones were taken principally on the summit of a rounded hill about two miles from Porto Grande, and below the house of the English consul (Mr. Miller).

Genus 9. **AMBLYSTOMUS***.

Erichson, *Kf. der Mark Brand. i.* 59 (1837).

15. **Amblystomus viridulus.**

*A. viridulo-piceus, nitidus, fere impunctatus; capite magno; pro-
thorace brevi, transverso, lunulato-subcordato, angulis posticis
rotundate obtusis, basi valde profunde transversim impresso;
elyris levisissime striatis, saepius obsoletissime subtestaceo-dilutio-
ribus; antennis gracilibus, fuscis, ad basin (in articulis circa 4)
palpisque rufo-testaceis; pedibus gracilibus, fusco-piceis, tibiis
tarsisque testaceis.—Long. corp. lin. 1 2 1/2.*


**Habitat** S. Antão, et S. Vicente; sub lapidibus, necnon circa radices
graminum, in inferioribus intermediisque occurrens.

The slightly metallic-green tinge of this *Amblystomus* (the elytra
of which are for the most part very obsolesly diluted in hue, or as
it were faintly testaceous or subpellucid—when viewed obliquely),
combined with its short, sublunulate-cordate prothorax, will suffi-
ciently distinguish it. It is rather a common insect, at low and in-
termediate altitudes, in S. Vicente—where it occurs beneath stones,

* Although placed by Dejean amongst his *Acupalpi*, of the *Harpalides*—a
position which has approximately been conceded to it by Erichson, Lacordaire,
Duval, and others—I nevertheless believe that *Amblystomus* is strictly a "Tron-
catipenn," and a member of the *Lebiades*; and I am glad to observe that
Schaum took the same view. Apart from the reasons adduced by him, its
general affinities (no less than its habits) seem to me to be with *Dromius*, *Meta-
biletus*, and the allied forms; for not only is the shape of the prothorax (a most
significant item) on the same type as in those groups, but its short and slender
limbs, as well as its sculpture and very colour, are far more suggestive of the
insects which compose them than of those which are akin to *Bradycellus*
and *Stenolophus*. Indeed the almost unpunctured, submetallic surfaces of the two
*Amblystomi* described above are completely after the fashion which obtains in
*Metallopetus*; whilst the actual *markings* of the *A. lineatus* are so absurdly the
counterpart of what is the case in the *M. patruelsis* as to supply still further
presumptive evidence of its relationship (so to speak) with the latter.
and around the roots of grass; and I took a single example of it at a low altitude in S. Antão, namely at Carvoeiro (the point of the coast exactly opposite to Porto Grande, the harbour of S. Vicente). In S. Vicente it was captured by Messrs. Gray and Clark, as well as by Mr. A. Fry, several years ago; and, during our late visit, it was met with abundantly by Mr. Gray and myself in the vicinity of Porto Grande—more particularly on the summit of a rounded hill about a mile below the residence of the English Consul, Mr. Miller.

16. Amblystomus lineatus, n. sp.
A. viridulo-niger, subnitidus, fere impunctatus; capite magno; prothorace subcordato, angulis posticis rotundatis, basi profunde transversim impresso; elytris levissime striatis (striis versus latera obsoletis), singulis lineâ testaceâ ab humeris (et ibidem obliquâ), per discum (ibidem rectâ) usque ultra medium ductâ et ibidem ad suturam incurvâ, ornatis; antennis gracilibus, nigro-fusciis, ad basin (in articulis circa 3) palpisque rufo-testaceis; pedibus gracilibus, nigro-piceis, tibibus tarsiisque (brevisculis) testaceis. 
Habitat S. Antão, et S. Iago; regionibus editoriibus, nisi fallor, proprius, necnon ibidem rarissimus.

A most distinct and interesting Amblystomus, apparently of the greatest rarity—having been captured, very sparingly, by Mr. Gray and myself, at a lofty altitude, on the mountains in the central region of S. Antão. We first found it on the upland slopes above the Ribeira da Babosa, and subsequently on the Campo Radondo (which is considerably higher still). Hence I cannot but regard it as a strictly alpine species; and it was therefore with some surprise and perplexity that I afterwards met with its mutilated remains on the sea-level in S. Iago—namely, in the Palm-grove adjoining the eastern outskirts of the Villa da Praia. It was merely the elytra that occurred; nevertheless the colour, sculpture, and markings are (in this case) all so unmistakeable that I have no hesitation about identifying them; and it has since struck me that, as the flat piece of ground on which they were picked up is alongside a water-course which must occasionally (even in that arid district) be filled by the rapid autumnal floods, the fragments in question (along with those perhaps of other insects also) may have been accidentally brought down from some higher tract—a contingency to which I may possibly have again to advert in my observations on the Ptero-
stichus profunde-crenatus, which would seem to be in much the same predicament.

Although likewise with a very faint metallic-green tinge, the A. lineatus is on the average a trifle smaller and blacker than the viridulus, and each of its elytra is ornamented with a testaceous line (which however is sometimes partly obsolete) extending from the shoulder (where it is oblique) down the inner disk (where it is straight, and parallel to the suture) to about the midway point between the centre and apex—where it is suddenly curved inwards, so as to join the corresponding line (of the other elytron) at the suture. In minor particulars, the A. lineatus is just perceptibly less shining (or more alutaceous) than its ally; its prothorax is a little longer and more cordate, somewhat less deeply impressed along the base, and with the hinder angles rather more rounded-off; its outer elytral striae are perhaps still more obsolete; its antennæ and femora are a shade darker; and its feet are, if anything, more abbreviated.

Genus 10. XENOTHORAX (nov. gen.).

Instrumenta cibaria et corpus fere in Lebia, sed tarsi gracilioribus filiformibus (art. 4° simplici) unguiculisque parvis, intus omnino inermibus; antennarum art. 3° sequentibus vix longiore; palpis longioribus ac duo graciolioribus, art. ult. acuto fusiformi, necnon art. 3° in maxillaribus ultimo multo breviore; oculis majoribus (maximis); capite prothoraceque brevioribus (magis transversis), hoc parvo, hexagono, i.e. postice utrique ab angulo postico (fere in medio sito) usque ad basin recte oblique truncato. Corpus alutaceum sed hand punctatum, alis magnis.

A ξέρος, mirabilis, et θόραξ, thorax.

The singular shape of its short, hexagonal prothorax, combined with its slender limbs and palpi, its narrow, filiform feet (the fourth joint being small and entire), its minute, unarmèd claws, and its enormously developed eyes, will at once separate the present genus from Lebia—to which, in general aspect, it is related. Indeed the combination of its simple feet and claws will, of itself, distinguish it from the various other groups of this department of the Lebiades; whilst in its more or less reddish-brown hue and unpunctured (though alutaceous) surface it is, at first sight, somewhat suggestive of the common European Bembidium rufescens. In many of its characters it would appear to agree with the diagnosis of the Indian genus Pentagonica, of Schmidt-Göbel; but the prothorax of that insect is described as pentagonal and not produced in the centre behind—which latter fact alone removes it into a different Section, in the vicinity of Masorens.
17. Xenothorax hexagonus, n. sp.

X. rufofusco-testaceus, alutaceus, subopacus; capite prothoraceque brevibus transversis impunctatis, oculis maximis prominentibus, hoc parvo hexagono, late marginato, argute canaliculato; elytris (sed vix in limbo) obscurioribus (i. e. fuscis vel rufo-fuscis) sed paulo nitidioribus, sat profunde punctulato-striatis, interstitii subconvexis; antennis (fuscis vel nigro-fuscis), palpis (infuscate testaceis, basi obscurioribus) pedibusque (testaceis) gracilibus.—

Habitat S. Antão et Brava; sub quisquiliis foliisque in intermediiis, velocissime currens.

A single example of this curious insect was taken by Dr. H. Dohrn in the north of S. Antão; and I met with a second (under refuse) in the Ribeira da Babosa of the same island, as well as with a considerable series of it subsequently in the island of Brava. The Brava specimens were all captured at the extreme base of the perpendicular mountains close to the Povoacão,—amongst the damp leaves, and fine earth, which had accumulated around the roots of Ferns and other plants. It runs with excessive velocity, as indeed its largely developed eyes and slender limbs would seem to imply.

Genus 11. MASOREUS.


18. Masoreus spinipes, n. sp.

M. piceo-niger, nitidus (fæminâ in elytris subopacâ); capite simplici (vel intra oculos obsoletissime subsulcato); prothorace transverso, angulis anticis acutiusculis subporrectis; elytris parallelo-ovalibus, postice valde abbreviatis, ad humeros parum obtuse rotundatis, leviter striatis (striis obsoletissime et subremote punctulatis); antennis pedibusque rufo-piceis, tibiis (saltem posteriорibus, validis) sat longe et robuste setosis, tarsis longiusculis.—

Habitat S. Nicolão, S. Iago, et Fogo; in aridis inferioribus præcipue occurrentes.

As is the case with most of the Masorei, the present species and the following one are very closely allied; yet, after a most careful inspection of a long series of both of them*, taken in two or three different islands, I am satisfied that they are truly distinct—the characters which separate them appearing quite constant, and with—

* My diagnoses have been compiled from 40 examples of the M. spinipes, and 25 of the ascendens.
out any tendency to merge into each other. The *M. spinipes*, moreover, seems to possess, on the average, a lower range than the *ascendens*,—occurring generally in arid spots but slightly removed above the sea-level, and sometimes near even to the shore itself; whereas the *ascendens* inhabits the intermediate districts—preferring subsylvan spots, at an elevation of about 2000 feet. In which respects (although in few others) they might possibly be looked upon as representing the *M. arenicola* and *alticola* of the Canarian Group, though, in reality, I think that the *M. spinipes* has perhaps more in common with the Fuerteventuran *M. nobilis*. The *M. spinipes* was taken by Mr. Gray in S. Nicolão and Fogo, and by myself in the latter island and S. Iago. The S. Iago specimens were from the Palm-grove to the east of the Villa da Praia, and the Fogo ones from the top of the basaltic cliffs immediately above the Puerto da Luz.

The *M. spinipes* is, on the average, a little larger, and darker, than its ally; and its females have their elytra more alutaceous, or opake. Its head, also, is nearly free from any tendency to be sulcated within the inner margin of either eye; its anterior prothoracic angles are rather more porrected and acute; its elytra (which are more parallel at the sides, shorter behind, and somewhat less obtusely rounded at the shoulders) have their striae finer, and only very obsolesly, and rather remotely, punctuated (instead of being closely and finely crenulate); its four posterior tibiae are perceptibly thicker, and are armed with longer and stouter spines; and its feet are, if anything, a trifle more elongated.


*M. nigro-piceus*, nitidus; capite intra oculos sat distincte sulcato; prothorace transverso, angulis antecis obtusiusculis; elytris ovula libus, postice leviter abbreviatis, ad humeros obtuse rotundatis, argute striatis (striis minute sed regulariter et crebre crenulatis); antennis pedibusque clave rufo-piceis vel rufo-ferrugineis, tibiis breviter setosis.


*Habitat* S. Nicolão, et Fogo; in intermediis subeditioribusque degens.

The rather smaller size (on the average), and somewhat more picceous hue, of this *Masoreus* (the immature examples of which are often entirely rufo-ferruginous), in conjunction with its more oval (or less straightened)elytra, which are rather less abbreviated posteriorly, and have their striae regularly and closely (though finely) crenulate, and its paler legs—the four hinder tibiae of which are less robust, and
beset with considerably stouter, fewer, and less developed spines—will readily separate it from the preceding species. In minor details, it is further distinguished by the more evident sulci of its forehead (immediately within either eye), the rather blunter and less porrected anterior angles of its prothorax, and by its shoulders being (if anything) more obtusely rounded and its feet just perceptibly shorter.

In habits, moreover, the present *Masoreus* is not quite the same as its ally; for whilst the latter occurs either on or but slightly above the sea-level, the *ascendens* appears (as already stated) to be found in the intermediate elevations. It was taken by Mr. Gray in S. Nicolão, and by myself (rather abundantly) in the small subsylvan gorge at the Monte Nucho in Fogo—at an altitude of, probably, between two and three thousand feet.

(Subfam. IV. CHLÆNIIDES.)

Genus 12. CHLÆNIUS.


20. *Chlaenius uncosignatus*, n. sp.

*C. gr iso* pubescens (præsertim in elytris); capite prothoraeque nigro-cupreis sed æ neo viridique micantibus, nitidissimis, illo minute et parce punctulato, hóc transversim subquadra tato, postice lato et per basin rectissime truncato, antice angustiore, ad latera leviter rotundato, per marginem lateralem (sallet postice) angustissime dilutio re, utrique intra angulos posticos subrectos leviter necon versus medium profunde impresso, grosse sed parce (basin versus cerebris) punctato; elytris oblongis, obscureiouribus, subcrenulato-striatis, in interstitiiis minute punctulatis, singulis lineâ apicali angustâ rufo-testaceâ obliquâ antice subito intus curvatâ unciformi ornatis; antennis breviusculis, testaceo-fuscis, articulis 3 basali rus rufo-testaceis; pedibus testaceis, tarsis fuscescentioribus. *Variat* in elytris lince parte anteriore (curvatâ, unciformi) vel a parte basali disjunctâ, vel omnino obsoletâ.—*Long. corp. lin. 5-5 ½*.

Habitat S. Iago, Fogo, et Brava; in humidis intermedia, præsertim subsylvaticis, sæpissim rarissimus.

The slightly larger size (on the average) and somewhat more parallel outline of this fine *Chlaenius*, in conjunction with its totally different prothorax—which is broad, and straightly truncated, posteriorly, with the hinder angles almost right angles, and with the punctures exceedingly large, coarse, and (except at the base) few in number,—its rather short and pale antenna, and the curiously shaped testaceous line (which is at first straight but oblique, and then sud-
denly incurved in the direction of the suture) at the apex of either elytron, will at once separate it from the following two species. Its head and prothorax also are more shining and coppery (though with likewise a strong greenish, and sometimes ænescent, lustre); its elytral interstices are more finely punctulated; and its prothorax has the extreme lateral edge (towards the hinder angles) narrowly diluted in hue, and the large punctures of its fore disk with a faint tendency to be arranged in longitudinal rows.

The *C. uncosignatus* is sparingly, but widely, distributed over the southern islands of the Group, having been taken by myself in S. Iago, Fogo, and Brava. It is found in damp spots of intermediate elevations—occurring beneath decaying refuse, and under wet stones at the edges of watercourses and streams. My S. Iago specimens are from San Domingos and S*ª* Catharina; the Fogo ones from the Monte Nucho; and the Brava ones from fissures of the moist clayey soil, amongst some Banana-grounds, at the extreme base of the perpendicular mountains immediately outside the Povoação.

**21. Chlaenius Boisduvalii.**

*C. fulvo-pubescens* (præsertim in elytris); capite prothoraceque anco-viridibus, subnitidis, illo minute ruguloso-punctulato, hóe subcordato, per basin subrecte truncato, ad latera rotundato, angulis posticis obtusis sed parum argute determinátis, postice utrinque profunde impresso, profunde et crebre punctato; elytris subovato-oblongis, vix obscurioribus, suberenulato-striatis, in interstítiis rugose punctatís, singulis maculá dentatá subapicali flavo-testaceá ornátís; antennis fuscis, ápicem versus gradatim dilútoribus, artículus 3 basalibus pedibusque testaceís, tarsís fuscescentioribus.—Long. corp. lin. 4½—5.

**Chlaenius Boisduvalii, Buquet, in litt.**


**Habitat** S. Vicente, S. Nicolão, S. Iago, et Fogo; præcipue in inferioribus subinferioribusque degens.

The present *Chlaenius*, which appears to occur also on the opposite coast of Africa, will probably be found to be widely spread over the archipelago and to possess (on the average) a lower range than either the preceding or following ones. Nevertheless the only examples of it which I have seen hitherto were captured in S. Vicente, S. Nicolão*, S. Iago, and Fogo,—in the first (during the month of October) by

* The example which was found by Mr. Gray in S. Nicolão (at about five or six hundred feet above the sea) unfortunately became mutilated on his homeward route; nevertheless I feel pretty certain, from what remains of it, that it belongs to the *C. Boisduvalii*, rather than to the nearly-allied *C. consanguineus.*
Mr. A. Fry, in the second (about the middle of February) by Mr. Gray, and in the third (at the end of January) by Mr. Gray and myself, whilst from Fogo an example has lately been obtained by the Barão do Castello de Paiva. The S. Iago specimens were all taken in the immediate vicinity of the Villa da Praia; and my own (which I met with in the Palm-grove to the east of the town) were dead and mutilated—thus clearly showing that we were too late in the season, in at any rate that hot and low locality, for the normal habits of the species: but, on the other hand, a single one (perhaps a straggler which had lingered on) was obtained by Mr. Gray, within half a mile of the same place, in a living state.

From S. Vicente the *C. Boisduvalii* has also been communicated by T. Miller, Esq., H.B.M. Consul for the Cape Verdes.

22. *Chlaenius consanguineus*, n. sp.

*C. precedenti valde affinis, sed vix ejus varietas regionibus editoribus propria: differt precipue prothorace paulo minus cordato, sensim latoire (præsertim postice) ae magis transverso, ad latera magis æqualiter rotundato, angulis posticis obtusius rotundatis, quare per basin minus recte truncato (vel magis sinuato), elytris ad latera vix magis parallelis, ad humeros vix magis porrectis, antennisque in medio subcrassioribus nigrescentioribus.—Long. corp. lin. 4–5.*

*Habitat* S. Iago, Fogo, et Brava; humidos et aquosos in intermedia colens.

Exceedingly close to the *C. Boisduvalii*, of which at first sight it might well be regarded as a slightly altered phasis peculiar to the intermediate districts. Nevertheless, since its few characters remain constant in at any rate three different islands (if not indeed in more), I think, when its apparently higher range is also taken into account, that it would not be safe to treat it as a mere state, or variety, of that insect. Almost its only diagnostic feature, of any importance, consists in the shape of its prothorax—which is a little less cordate, and rather broader behind, with the sides consequently more equally rounded, and the posterior angles more blunt and obtuse (the lateral rim being carried more completely round them, so as to cause the entire basal margin to be less straightened, or more sinuate). In minor particulars, its two prothoracic foveae are a little wider, and more concave, than is the case in the *C. Boisduvalii*; its elytra are just perceptibly more straightened at the sides, and more porrect at the shoulders; and its intermediate antennal joints are, if any-
thing, a trifle darker and thicker. In their greenish, or brassy-green hue, close and deep sculpture, and in the pale-yellow dentate patch towards the apex of each elytron, the two species are nearly similar.

The C. consanguineus I have taken in S. Iago, Fogo, and Brava—in the first of which it was found likewise by Mr. Gray. The S. Iago examples are from the valley of San Domingos and from the Boa Entrada at Sta Catharina, the Fogo ones from the Monte Nucho, and the Brava ones from the base of the perpendicular hills close to the Povoação—where I met with them in company with the C. uncosignatus.

(Subfam. V. PTEROSTICHIDES.)

Genus 13. POGONUS.

(Ziegler) Dej., Spec. Gén. des Col. iii. 6 (1828).

23. Pogonus Grayii.

— —, Id., Col. Atl. 25 (1865).

Habitat S. Vicente; in salinis lutosis juxta mare parceprehensus.

The only examples of this small, narrow, and pallid Pogonus which I have yet seen from the Cape Verdes are three, which were taken by myself in S. Vicente—on the wet slimy mud of an old Saltern, immediately behind the sea-beach, on the sandy flat about a mile from Porto Grande. In all probability the species will be found to be widely spread, in saline places—not merely in the islands, but likewise on the opposite coast of Africa; for it is rather common in Lanzarote, of the Canarian Group, and it was captured by the Messrs. Crotch at Mogadore.

Genus 14. PTEROSTICUS, Auct.

(Subgenus Pœcillus, Bon.)

24. Pterostichus profundecrenatus, n. sp.

P. niger, elongato-oblongus, nitidissimus, glaber, subdepressus; capite obsolete, parce et minutissime punctulato; prothorace subcordato, angulis posticis obtusis sed ipsissimis minute prominulis, basi punctis grossis parce irrorato, utrinque (intra angulos basales) profunde bifoveolato; elytris profunde et grosse crenato-striatis,
angulis humeralibus argute determinatis, acutiuseulis; antennis brevibus, versus apicem fusco-piceis; palpis tarsisque (praeertum antecis) piceis.—Long. corp. lin. 5.

*Habitat* S. Nicolão, et S. Iago?; sub lapidibus, rarissimus.

The black, shining surface, subcordate prothorax (which is deeply impressed within either hinder angle with two longitudinal foveae), and its coarsely crenate-striated elytra, will sufficiently distinguish this large *Pterostichus* from everything else with which we have here to do. It belongs to the same type of form as the *P. crenatus*, from south-western Europe and the Canary Islands; but it is considerably larger, and apparently free from the blue, or cyaneous, tinge which characterizes that species; its hinder prothoracic angles (instead of being nearly right angles) are more obtuse; its elytra are a trifle less depressed; and its antennae are relatively a little shorter. A single example of it was taken by Mr. Gray in S. Nicolão (I believe at a high altitude on Monte Gordo); and I met with the remains of what I cannot but think was the same species at a low elevation (indeed on the sea-level) in S. Iago—namely, in the Palm-grove adjoining the eastern outskirts of the Villa da Praia. Nevertheless, since the fragments which I procured were scarcely sufficient to enable me to identify them positively, I have considered it safer to query S. Iago in the *habitat* of the species*

(Subfam. VI. HARPALIDES.)

**Genus 15. CRATOGNATHUS.**


25. Cratognathus labiatus.

*C. nigro-piceus, labro sepius paulo dilutioere, mas nitidus, fœmina subopaca; capite prothoraceque impunctatis, illo magno, hœc transversim subcordato, antice lato, ad latera leviter rotundato, angulis postecis rotundate obtusion, per marginem basalem subsinuato, basi

* If it be true that Mr. Gray's example from S. Nicolao was taken at a lofty altitude (and I cannot but suspect that the species is truly a "mountain" one), and if it be equally true that the remains which I found at the sea-level in S. Iago were strictly referable to the same *Pterostichus*, it would look as if some explanation was wanted in order to account for the existence of the latter in two such totally opposite localities. A precisely analogous case presents itself in the *Amblystomus lineatus*—a strictly alpine insect, which we took at a high elevation in S. Antiao, and of which I likewise met with the elytra (which were quite unmistakable) in this same Palm-grove, on the sea-level, in S. Iago. I cannot conceive it probable that these mountain species would ever descend normally to the level of the shore; but, as the locality referred to is alongside the bed of a stream
utrinque leviter impresso; elytris striatis, striis fere simplicibus; antennis, palpis pedibusque rufo-furrugineis, interdum rufo-testaceis.—Long. corp. lin. 3½-5½.


*Habitat* S. Antão, S. Vicente, et S. Nicolão; sub lapidibus in edito-ribibus, hinc inde vulgaris.

I have little doubt that this is the *C. labiatus* of Erichson's supposed "Angolan" Coleoptera, with the short description of which it sufficiently agrees; nevertheless if it should prove hereafter to be distinct, I would then propose for it the trivial name of *obtusus*. It appears to be widely spread over at any rate the northern half of the archipelago, and will most likely be found to be universal in the southern division also—though hitherto it has been observed merely in S. Antão, S. Vicente, and S. Nicolão, occurring only at lofty elevations. In the first of those islands it was taken by Dr. H. Dohrn (in the Ribeira de João Affonso, and other places towards the north), as well as by myself (on the Campo Radondo, and towards the head of the Ribeira das Patas) on the mountains of the central district; in the second by T. Miller, Esq., Mr. Gray, and myself, on the summit of Monte Verde; and in the third by Mr. Gray, at a lofty altitude on Monte Gordo—where he described it as existing in the utmost profusion, beneath stones.

Like the *Cratognathi* generally, the *C. labiatus* is extremely variable in size; and of the numerous examples now before me, those from S. Nicolão seem on the average to be somewhat the most developed. It may be known from all the species found at the Canaries, Madeiras, and Salvages by, *inter alia*, the obtusely rounded hinder angles of its prothorax.

**Genus 16. HARPALUS.**


*H. niger*, mas nitidus, fœmina opaca; prothorae transversim sub-quadrato, postice paulo angustiore, angulis posticis subrectis, basi utrinque laxe sed levissime impresso et parce obsolete punctulato;

which (although perfectly dry during the greater portion of every year) must occasionally flood during the autumnal rains. I can imagine it within the range of possibility that these specimens may have been washed down (*perhaps* dead and mutilated) from some higher spot, and deposited, along with other refuse, within the low, flat enclosure where I found them.
elytris striatis (striis fere simplicibus); antennis, palpis pedibusque rufo-ferrugineis.—Long. corp. lin. 4–vix 5.

Habitat S. Vicente, et S. Nicolão; in montibus excelsis parce occurrunt.

Species in honorem Baronis lusitanici "Castello de Paiva" citata, scientiae naturalis patroni ac scrutatoris periti.

A Harpalus which belongs to much the same type as the European H. tenebrosus (which occurs in the Madeiran and Canarian groups) and the Teneriffan H. Schaumii, combining to a certain extent the colour and outline of the latter (particularly as regards its rather pale limbs and the subrectangular hinder angles of its, nevertheless somewhat longer, prothorax) with the less coarse sculpture of the former. It appears to be rare, and confined to lofty elevations—having been taken by myself on the summit of Monte Verde in S. Vicente, and by Mr. Gray at a high altitude on Monte Gordo in S. Nicolão. From the former island it has also been communicated by Mr. Miller. I have had great pleasure in dedicating it to my excellent friend the Barão do Castello de Paiva, from whose zeal in the cause of Natural History I have at various times derived much practical assistance, while investigating the Coleopterous fauna of these several Atlantic Groups.

27. Harpalus serienotatus, n. sp.

H. vel niger vel piceus, nitidus, in elytris plus minus obsolete metallico relucens; capite fere simplici; prothorace (transversim subquadrato, angulis posticis obtusis subrectis) minuto et ereberrime punctulato, punctulis antice subobsoletis; elytris simpliciter striatis, in interstitiis distincte sed haud crebre punctatis, nee non per 3iam et 5iam punctis majoribus circa 8 longitudinaliter notatis; antennis, palpis pedibusque breviusculis, subgracilibus, saturate testaceis.


Habitat S. Vicente, Fogo, et Brava; in editioribus, rarissimus.

In its rather small size and slightly parallel outline, as well as in its somewhat slender limbs and the iridescent lustre which is obscurely apparent on its elytra, the present Harpalus is a good deal suggestive of the large type of Stenolophus of which the S. subrelucens (described below) is a member; yet the ordinary structure of the fourth tarsal joint of its male sex will at once affiliate it with the Harpali, whilst its punctulated surface would seem to assign it
to the *Ophonus*-group of the latter—with which, nevertheless, in other respects it does not seem to have much in common. Perhaps its most remarkable feature consists in the seven or eight larger punctures with which its third and fifth elytral interstices are longitudinally branded—a peculiarity which, although common in some of the Canarian Calathi, I have never before observed in any *Harpalus*. In one of the four examples from which the above diagnosis has been compiled, and which was taken by myself on the mountains in Brava, the hinder prothoracic angles are a trifle less obtuse than is the case in the remaining three; but I can see nothing about it to warrant the suspicion that it is specifically distinct.

The *H. seriounotatus* is decidedly scarce, and confined to rather lofty elevations. I met with two specimens of it on the top of Monte Verde in S. Vicente, another at the Monte Nucho in Fogo, and a fourth at a high altitude above the Povoação in Brava.

Genus 17. **DICHIROTRICHUS**?

Duval, *Gen. des Col.* i. 35 (1857).


*D. ubique punctatus ac parce fulvo-pubescentis, subnitidus; capite prothoraceque submetallico-virescentibus, illo in labro mandibulisque rufo-ferrugineis, hœc in limbo gradatim plus minus rufo-ferrugineo, transversim subquadrato-cordato (postice angustato), angulis posticis argute obtusis, basi utrinque late sed leviter impresso; elytris subparallelis, profunde creuato-striatis, testaceis, lineis nigrescentioribus, plus minus fractis, longe ante apicem subito terminatis (et ibidem quasi fasciam transversam dentatam interruptam efficientibus) ornatis; antennis, palpis pedibusque testaceis.—Long. corp. lin. 3.*

*Habitat* S. Iago; sub lapidibus in inferioribus, rarissimus.

I do not feel quite certain that the two beautiful insects from which the above diagnosis has been compiled should be referred undoubtedly to *Dichirotrichus*; yet their entirely punctuated, pubescent surface, partly testaceous elytra, and general outline are, I think, more in accordance with the members of that group than with those of any other with which I am acquainted, though, unfortunately, since both examples are females, I am unable to decide whether the intermediate male tarsi are simple or dilated. There can be no fear of confounding them with anything else with which we have here to do; for, apart from the two important characters
above referred to, their slightly metallic-green head and prothorax (the latter of which however is the more diluted of the two, shading gradually off towards the edges and base into a reddish-ferruginous tint), and their testaceou-selytra—which are ornamented with several (more or less broken and irregular) longitudinal blackish lines, ending abruptly at a considerable distance from the apex, so as to shape-out in that particular region a transverse, zigzag fascia (posteriorly well-defined, but merging anteriorly into the darkened lines)—will readily distinguish the species of which they are the exponents. They were both of them taken by myself at a low elevation (indeed, I may say, on the sea-level), close to the Villa da Praia in S. Iago, beneath stones outside the Palm-grove to the east of the town; but, being in a dry, stony spot, I have no reason to suppose (which, however, their general colour and aspect would have inclined me to suspect) that they are of saline habits*.

Genus 18. STENOLOPHUS.
(Megerle) Steph., Ill. Brit. Ent. i. 165 (1828).

29. Stenolophus subrelucens, n. sp.?
S. nitidissimus, in elytris plus minus (interdum obsolete) metallico relucens; capite prothoraceque rufo-picceis, hoe in limbo sepius anguste dilutio-ri transversim subquadrato, angulis posticis rotundatis, postice utrinque late sed leviter impresso punctisque sat grossis irrorato; elytris nigro-piceis, per suturam et limbo (pre- sertim postice) plus minus dilutioribus, profunde simpliciter striatis; antennis fuscescentibus, ad basin, palpis pedibusque rufotestaceis.—Long. corp. lin 3–3½.


Habitat S. Antão, S. Iago, et Brava; sub quisquiliis humidiusceluis in intermedis.

Judging from its more or less rufo-piceous head and prothorax and rather darker elytra (which have their margin and suture faintly diluted in hue), I at first imagined that this large Stenolophus might perhaps be the S. relucens of Erichson’s supposed “Angolan” Cole-

* I may notice, in perhaps about this position, the remains of an insect which I met with, beneath a stone, in the Palm-grove above alluded to, near the Villa da Praia of S. Iago. I could obtain only the elytra—which are brownish-testaceou-s and subopake, free from punctures and pubescence, coarsely (but nearly simply) striated, and with a dull, laterally abbreviated, zigzag fascia, common to both, behind the middle. Judging from the descriptions, I am inclined to think that it may possibly be a portion of some Bradyhelenus—of which there are a few species found on the opposite coast of Africa. Indeed the genus appears to be an exclusively African one.
ptera, and even now I do not feel absolutely certain that such is not the case; nevertheless the diagnosis of that species would seem to imply that the elytra are conspicuously (perhaps even splendidly) iridescent (instead of only obscurely so, and sometimes hardly at all), and with their striae (in lieu of being simple) subpunctate: so that it is more likely that, along with the other *Stenolophi* of his Memoir, it may be veritably from Angola, and not found in the Cape Verdes. Be this however as it may, it seems to be widely scattered over the archipelago, where most likely it will be found to be universal,—occurring sparingly, for the most part beneath refuse, in damp spots of intermediate altitudes. It was taken in tolerable abundance by Dr. H. Dohrn in the north, and by myself on the hills above the Ribeira Fria in the centre, of S. Antão; by myself at Sra Catharina, in the interior of S. Iago; and by Mr. Gray and myself on the mountains above the Povoação, in Brava.

(Subfam. VII. TRECHIDES.)

Genus 19. **TRECHICHUS**.


30. *Trechichus fimmicola*.

*Trechus fimmicola, Woll., Ins. Mad. 63 (1854).*

--- *fimmicola, Id., Cat. Mad. Col. 18 (1857).*

*Trechichus fimmicola, Id., Col. Atl. 51 (1865).*

*Habitat* S. Antão, S. Iago, et Fogo; sub quisquiliis humidis in inter-
mediis inferioribusque degens.

This little *Trechichus* (which is rather common in the Madeiran Group, but which has not yet been observed at the Canaries) appears to be widely spread over the Cape Verde archipelago, where we may expect that it will be found universally. It occurs beneath damp refuse at intermediate, and sometimes even low, elevations; but it does not seem anywhere to be abundant. I have taken it at Tarafal in the south of S. Antão, at Sra Catharina in the interior of S. Iago (where it was found also by Mr. Gray), and at the Monte Nucho in Fogo.

Apart from its *generic* characters (or freedom both from flexuose frontal furrows and an *apically-recurved* sutural stria), the *T. fimmicola* may easily be known by its shining, unsculptured surface, black head, rufo-testaceous prothorax, dull, lurid-testaceous, almost unstri-
ated elytra, and its rather short, brightly testaceous limbs—the
antennae of which are especially abbreviated, somewhat thick, and moniliform.

Genus 20. **PERILEPTUS.**

Schaum, *Nat. der Ius. Deutsch.* i. 663 (1860).

31. **Perileptus areolatus.**


*Habitat* S. Antão; per marginem rivuli cujusdam parvi, ad Catano, in montibus excelsis captus.

The European *P. areolatus* seems to occur very sparingly along the edges of the streams, at a high elevation, in the Cape Verdes. Hitherto I have seen but two examples of it—which I met with, amongst wet shingle, at the margin of a mountain-torrent at Catano, towards the head of the Ribeira das Patas, in the central district of the island. One of these I unfortunately lost; but I can detect nothing about the other to warrant its separation from the ordinary type. It is a species of rather wide geographical range—having been recorded from most parts of Europe, the Caucasus, Northern Africa, &c.; and I am far from satisfied indeed that my *P. nigritulus* from the Canaries is more, in reality, than a dark, and somewhat largely developed, permanent state of it peculiar to that Group.

(Subfam. VIII. BEMBIDIADAE.)

Genus 21. **TACHYS.**


32. **Tachys atomarius**, n. sp.

*T. minutissimus*, nitidus, fere impunctatus, saturate testaceus, in capite necon interdum in elytris paulo nigrescentior; prothorace transversim subcordato, angulis posticis obtusiusculis sed argute determinatis; elytris subdepressis, singulis strià suturei simplici profunda (apice, ut mihi videtur, vix recurva, sed forsan in parte recurvâ subobsolèta) impressis, necon punctis duobus magnis per disceum longitudinaliter notatis; antennis pedibusque pallide testaceis.

*Variat* (immaturus) omnino pallide testaceus.—*Long. corp. lin. \( \frac{1}{2} - vix \frac{2}{3} \).

*Habitat* S. Antão, S. Vicente, et S. Iago; in humidis intermediiis, præsertim inter lapillos per margines aquarium latitans.
The excessively diminutive size, and more or less pallid hue, of this little Tachys, combined with the fact that its elytra have but a single stria (and that one alongside the suture) apparent on each of them, will immediately separate it from everything else with which we are here concerned. I feel pretty certain that it is a true Tachys, and (as I believe) of the bistratiatum-group; nevertheless I am unable to satisfy myself, even with the aid of the microscope, that its sutural stria is recurved at the apex. I think, however, that I can detect faint indications of a recurved line—which may possibly therefore be present, but subobsolete.

The T. atomarius is widely spread throughout the archipelago, where most likely it will be found to be universal—though its extremely minute size and rapid movements render it very liable to escape notice. It occurs in wet places of intermediate altitudes, especially amongst the fine shingle and vegetable detritus at the edges of the streams—in which situations I seldom fail to obtain it, by sifting. In S. Antão I met with it at Tarrafal, in the Ribeira Fria, the Ribeira das Patas, &c.; in S. Vicente, at Madeiral; and in S. Iago, at S\(^a\) Catharina and the Orgãos ravine—in the last of which localities it was found likewise by Mr. Gray. It is the most diminutive member of the subfamily Bembidiae with which I am acquainted.

33. Tachys centromaculatus.


Habitat S. Vicente; in salinis lutosis juxta mare parce lectus.

This Tachys, which had been observed as yet only in the Canarian Group (where I detected it along the edges of the saline lake of Januvio, in Lanzarote), I captured a few examples of, at the end of February 1866, in S. Vicente. They were on the slimy mud of an old Saltern, in the sandy flat (behind the sea-beach) about a mile to the south of Porto Grande—in company with the Dyschirius auriculatus, Pogonus Grayii, Anthicus dimidiatus, and Bledius vitulus (all of which, except the first, are equally Lanzarotan). It will most probably be found widely distributed over these latitudes, if searched for in its proper localities; and we may be pretty sure that it will be met with in the (hitherto unexplored) eastern islands of the Cape Verde archipelago. The very decided points which separate it from its near ally, the common European T. scutellaris, have been fully alluded to in my Canarian Catalogue.
34. Tachys curvimanus.

Bembidium curvimanum, Woll., Ins. Mad. 74, tab. ii. f. 6 (1854).
— — —, Id., Cat. Mad. Col. 22 (1857).

Tachys curvimanus, Id., Col. Atl. 58 (1865).

Habitat S. Antão; in humidis intermedii, rarior.

The T. curvimanus, which is almost universal throughout the Madeiran and Canarian Groups (probably indeed quite so), and which may perhaps be but a state of the Mediterranean 4-signatus, appears to be rare in the Cape Verde archipelago. Indeed, out of an extensive series of the T. Lucasii, now before me, I can detect but three examples of the curvimanus—all of which were taken by myself in the Ribeira Fria, of S. Antão. We may expect, however, when searched for in damp spots of intermediate altitudes, to meet with it more generally. It may be known from the Lucasii by being a little more oblong and depressed, by its prothorax being a trifle narrower, its colour more piceous (or free from the obscure greenish tinge of that insect), and by its elytra having their striae (instead of being simple) strongly punctured, with the rudiments of an additional one (or a fourth) posteriorly, and their blotches differently shaped and (especially the hinder one) more suffused.

35. Tachys Lucasii.

— — —, Woll., Ins. Mad. 75 (1854).
— — —, Id., Cat. Mad. Col. 22 (1857).

Tachys Lucasii, Id., Col. Atl. 58 (1865).

Habitat S. Antão, S. Vicente, S. Iago, et Fogo; in humidis intermedii, præsertim lutosus per margines aquarum, late diffusus.

The T. Lucasii of Mediterranean latitudes (a species which is recorded from Spain, the north of Africa, Madeira, &c.) is widely spread over the Cape Verde archipelago, where we may expect that it will be ascertained ultimately to be universal. It occurs in damp places of intermediate altitudes, particularly in muddy spots near the edges of small streams and pools—where it is occasionally abundant. It was taken by Mr. Gray and myself in the Ribeira Fria, the Ribeira das Patas, the Ribeira da Babosa, &c., of S. Antão, as well as at Madeiralzinho in S. Vicente; and I subsequently met with it at San Domingos, the Ribeira dos Orgãos, and Sª Catharina, in S. Iago, and at the Fonte of the Monte Nucho in Fogo.
The Cape Verde examples of this *Tachys* possess a tendency which I have not observed in the specimens from other countries—namely, to have a large humeral spot (in addition to the ordinary subapical one) developed on each elytron. In S. Antão, S. Vicente, and S. Iago these highly-coloured individuals are, however, quite the exception; but all which I met with in Fogo were thus adorned. Yet I am satisfied that this extra patch has no claim whatever to be regarded as a specific character, and that it merely indicates a phasis of the *T. Lucasii*; for there are examples before me of every intermediate grade, in some of which the humeral blotch is so exceedingly faint as to be barely traceable. Indeed it seems to me to be the tendency of all these minute, nearly-allied, maculated species of *Tachys* to have two spots developed on each elytron, either one or the other of which is usually obsolete in many of the specific types, but which is nevertheless liable to be resumed when circumstances favour its development. And in support of this view, I may add that the little *T. hemorrhoidalis* of Mediterranean latitudes is characterized as having a subapical patch only on each elytron; yet in examples from Greece the late Dr. Schaum informed me that he could detect indications of a humeral one likewise; whilst all the specimens of it which I found in the Canarian Group were rather conspicuously quadrimaculate. So that, I think, there is nothing remarkable in the fact that the *T. Lucasii*, which is generally two-spotted in more northern countries, should (from some local cause, which it is hopeless to enquire into) show a tendency to become more brightly ornamented at the Cape Verdes.

Genus 22. **BEMBIDIUM.**


(Subgenus *Peryphus*, *Meg.*)

36. *Bembidium hesperidum*, n. sp.

*B. viridi-nigrum, antennis pedibusque pallidis; capite prothoraceque nitidissimis, hoc angusto, subcordato, convexo, per basin parce rugoso-punctato, angulis posticis obtusiusculis sed argute determinatis; elytris convexis, paulo minus nitidis, profunde crenato-striatis (striis postice et versus latera levioribus), singulis punctis duobus magnis per discum (sc. in stria tertia) longitudinaliter notatis; antennis fusco-brunneis, ad basin, palpis pedibusque rufo-testaceis.*—Long. corp. lin. 2\(\frac{2}{3}\).

*Habitat* S. Antão, S. Vicente, et S. Nicolão; per margines aquarum in intermediais, rarior.
This fine *Bembidium* (of the *Peryphus*-type) seems to represent in these islands the *B. atlantidum*, which is so universal throughout the Madeiran and Canarian archipelagos. Indeed, although totally distinct from it specifically, it is much allied to that insect. It appears however to be uniformly (with the exception of the limbs) of a greenish-black, or blackish-green, hue—showing no tendency, so far as I have observed hitherto, to become maculated; its prothorax and elytra (the former of which has the basal angles a trifle more obtuse) are, both of them, very much more convex; and its legs, as is especially evident in the hinder feet, are relatively a little longer. It is decidedly rare, or at any rate exceedingly local, and confined to damp spots of intermediate and somewhat lofty altitudes—occurring amongst shingle, &c., at the edges of the small pools and streams. It was taken by Dr. H. Dohrn in the north of S. Antão, by Mr. Gray and myself at Madeiralzinho in S. Vicente, and by the former at a high elevation on Monte Gordo in S. Nicolão; and I have lately received a specimen from S. Vicente, which was captured by Mr. Miller (the English Consul). We may expect, therefore, to find it pretty generally distributed throughout the Group.

(Subgenus *Lopa*, Meg.)

37. *Bembidium subcallosum*.


*Habitat* S. Antão, S. Vicente, et Fogo; per margines aquarum, præcipe in intermediis, degens.

This large and spotted *Bembidium* (which abounds throughout the Canarian Group, and which is represented in Madeira by the *B. Schmidtii*) is widely spread over the Cape Verde archipelago, where we may expect that it will be ascertained ultimately to be universal. Hitherto however it has been observed only in S. Antão, S. Vicente, and Fogo—in the first of which it was found by Dr. H. Dohrn (in the Ribeira de João Affonso), as well as by Mr. Gray and myself (in the central ravines of the island); in the second by Mr. Gray and myself, at Madeiralzinho; and in the third, by myself, at the Fonte of the Monte Nucho. It is far from unlikely that (as is possibly the case with the Madeiran *B. Schmidtii* likewise) it may be, in reality, but a permanent geographical modification of the Mediterranean *B. callosum*. 
Fam. 3. DYTISCIDÆ.

Genus 23. HYPHYDRUS.

Illiger, Mag. für Insek. i. 299 (1801).

38. Hyphydrus crassus, n. sp.

H. ovalis, crassus, convexus, nitidus, dense inaequaliter punctatus; capite plus minus rufo-ferrugineo; prothorace ad latera oblique subrecto et anguste rufo-ferrugineo; elytris (antice basis prothoracis latitudine) rufo-testaceis, in suturâ, maculis lineisque latis irregularibus nigro ornatis, singulis lineâ dorsali impressis; antennis testaceis; pedibus (crassis) rufo-testaceis, posticis paulo picescentioribus.—Long. corp. lin. 2.

Habitat S. Antão, S. Vicente, et S. Iago; hinc inde in aquis intermediis (vel fluentibus vel stagnantibus).

The thick, oval body and densely punctured surface of this Hyphydrus, combined with the rufo-ferruginous hue of its head and of the lateral edges of its (piceous-black) prothorax, and its rufo-testaceous elytra, which nevertheless are nearly covered with dark irregular patches and broad longitudinal lines (usually a good deal broken, and more or less confluent), will serve to distinguish it amongst the very few water-beetles which have hitherto been observed in these arid islands. It was detected by Mr. Gray, during January 1866, in a small pool at Madeiralzinho, in S. Vicente,—where he found it in tolerable abundance, and where subsequently I myself obtained it. A week later I met with a single example of it at Catano (towards the head of the Ribeira das Patas) in S. Antão; and shortly afterwards we again captured it at San Domingos in S. Iago; so that it seems to be widely spread over the archipelago. It is very closely allied to the H. scriptus, of Fabricius, for examples of which (from Angola, Caffraria, and the Cape of Good Hope) I am indebted to the Rev. Hamlet Clark. Considering however what small characters are supposed to constitute specific ones in the Hydrocantharidae, I think it would be unsafe to regard it as a mere geographical state of that insect; and such, I may add, was likewise the opinion of Mr. Clark. But almost the only decided point in which it differs from the scriptus is its more equable punctuation; for although the punctures are composed (as there) of a double series (large and small), yet the larger ones are very much smaller, and the smaller ones distinctly larger, than is the case in the scriptus. In other respects, it is, if
anything, perhaps, a trifle rounder than the *scriptus*, with the edges of the prothorax just appreciably straighter and more oblique.

Genus 24. **COPELATUS**.

39. *Copelatus formosus*, n. sp.

*C.* niger (interdum piceo-niger), subnitidus; capite prothoracisque lateribus plus minus rufo-ferrugineis; clytris eleganter arguteque simpliciter striatis, per basin interstitiumque (apice excepto) sub-laterale, necnon in maculâ parvâ subapicali rufo-testaceis; antennis pedibusque rufo-testaceis.—Long. corp. lin. 2\frac{3}{4}–2\frac{1}{2}.

*Habitat* S. Iago; in aquis intermediis, præcipue fincentibus, rarior.

I have little doubt that this elegant *Copelatus*, which was captured by Mr. Gray and myself in S. Iago, is a truly African species; indeed it appears to be identical with an unnamed one in the collection of the British Museum, from Zulu. It is also near to the *C. africanus* (= *Benguelii*, Aube), but is a little smaller and not unicolorous—its head, and the sides of its prothorax, being dull rufo-ferruginous, whilst each elytron has a transverse basal line, about three-fourths of the sublateral interstice, and a small subapical spot (almost adjoining the latter) more or less testaceous. It seems to me that there is very little, except the beautifully striated clytra, to separate *Copelatus* from *Agabus*. The *C. formosus* was taken by Mr. Gray and myself, at intermediate elevations, in the small streams in the interior of S. Iago—namely, at San Domingos, in the Ribeira dos Orgãos, and at S*ª* Catharina.

Genus 25. **EUNECTES**.

There is so much difficulty attending the supposed "varieties" of the *E. sticticus*, as to whether any of them ought not rather to be regarded as specifically distinct, that I will not attempt to decide whether a *single example* (now before me) which was taken by Mr. Gray in S. Nicolão, and which appears to accord sufficiently well with the Madeiran *E. subcoriaceus*, might not be treated as a somewhat more oblong and unfasciated modification of that widely spread insect. I believe however that, although nearly allied to it, it can scarcely be looked upon as any phasis of the *E. sticticus*—though if, on the other hand, it should prove to be so, then I have little doubt.
that the Canarian *E. subdiaphanus* must equally be regarded as a geographical state of that species.

Yet whether the specimens from S. Nicolão represent (together with the Madeiran ones) a modification of the *E. sticticus* or not, I feel pretty sure that it is at all events distinct from a S. Vicente species in the collection of Mr. Fry (but which was not captured by himself), and of which several other examples were communicated by the late Rev. H. Clark with the label "Cape Verde" appended to them. This latter I described (in 1861) under the name of *conicollis*, but I have since nearly satisfied myself that it is the *helvolus* of Klug—a species which is actually recorded by Erichson amongst his supposed "Angolan" Coleoptera, and which Aubé cited (I think, wrongly) as a variety of the *sticticus*. So that, apart from the question of synonymy, I believe that we may at any rate register two species of *Eunectes* for these islands.

40. *Eunectes subcoriaceus*.

*E. oblongo-ovatus, subdiaphano-coriaceus, pallide dilute testaceus, clypeo antice leviter emarginato; capite postice nigro et maculà frontali magnà distinctè antice profunde bipartitâ ornato; prothorace vittâ transversâ parvâ fractâ nebuloso, ad latera oblique subrecto, angulis posticis acutiusculis; elytris punctis magnis in triplici serie et ubique punctulis minoribus nigris notatis, singulis maculâ (rarius duabus) parvâ sublaterali nigrâ ornatis.—Long. corp. lin. 7.*


*Habitat* S. Nicolão; à Dom. Gray semel tantum deprehensus.

The single example above alluded to, which I would regard as conspecific with the Madeiran *E. subcoriaceus*, was captured by Mr. Gray, during February 1864, in a small freshwater pool ("not in any degree brackish") in S. Nicolão.

41. *Eunectes helvolus*.

*E. ovatus, angustulus, luteo-grisens, clypeo antice vix emarginato; capite postice nigro et maculà frontali magnà plus minus suffusâ antice bipartitâ ornato; prothorace vittâ transversâ abbreviâtà ornato, ad latera oblique rectissimo, angulis posticis acutiusculis; elytris punctis magnis sat profundis in triplici serie et ubique punctulis minoribus nigris notatis, singulis maculis duabus minuitis sublateralibus et fasciâ transversâ tenui dentatâ posticâ (plus minus obsoletâ) nigris ornatis.—Long. corp. lin. 5½—6⅔.*

*Habitat* S. Vicente; à DD. Fry et Clark olim communicatus.

The smaller size, paler hue, and more ovate (or anteriorly-narrowed) outline of this *Eunectes* (which has also the punctures on the fore part of its elytra more conspicuous) will separate it, even at first sight, from the preceding one; but as we did not meet with it during our late sojourn in the Cape Verdes, I have nothing more to add concerning it than what I wrote (in the ‘Annals of Natural History’) in 1861. I believe however that it will prove to be a species of the lower elevations, and found in the briny waters of the Salinas; for a few examples of it have recently been taken by Senhor Moniz in Madeira—amongst plants of *Ruppia rostellata*, Koch, in a Saltern at Paul do Mar: and if this should prove to be the case, we may expect to meet with it in the (hitherto unexplored) eastern islands of the archipelago.

Genus 26. **CYBISTER.**

42. *Cybister africanus.*

*C. elongatus,* oblongo-ovatus, nitidus, subitus nigro-piceus, supra obscurae olivaceae; labro, epistomate, prothorace epytromque late-ribus, necnon vittâ submarginali (spice hamato-dilatata) in margine pallidum epytrom coëunte, saturete testaceis; epytris versus latera leviter punctatis, seriebus impressionum duabus in singulis longitudinaliter notatis; antennis, pedibus anticeis femoribusque intermixtis rufo-testaceis (sed tamen femoribus anticeis nigro-maculatis); tibiis tarsisque intermixtis et pedibus posticis piceeis.—Long. corp. lin. 14.

*Trochulus meridionalis,* Gené, *De quib. Ins. Sard.* i. 10 (1836).

*Habitat* S. Vicente; à Dom. Miller, Consule Britannico, nuper communicatus.

A single specimen of this large Hydrocantharid has lately been communicated from S. Vicente by T. Miller, Esq., the English Consul, by whom it was captured in a tank at Porto Grande. It is an insect which is widely distributed over the African continent, and one which occurs also in the south of Europe and the Canary Islands; so that its presence in the Cape Verde archipelago is not surprising.
Fam. 4. GYRINIDÆ.

Genus 27. DINEUTUS.

MacLeay, Ann. Javan. 30 (1825).

43. Dineutus aereus.

D. late subovato-ellipticus, grosse subrecurvi marginatus, nigro-olivaceus et hinc inde àeneo-tinctus, subopacus, ubique subtilissime et densissime subpunctulato-olivaceus punctulisque majoribus (sed tamen minutis) levissime adpersus; elytris levissime striatis, ad apicem minute serratibus; antennis pedibusque piceis.

Mas elytris ad apicem ipsissimum singulatim subrotundatis, utrinque pedibusque piceis. Fvem. elytris ad apicem ipsissimum paulo prominulis, utrinque piceis.

Habitat S. Antão, S. Vicente, S. Nicolão, et S. Iago; in superficie aquarum (vel fluentium vel stagnantium) congregans, in intermedii vulgari.

This large Dineutus (which is a species widely spread over tropical Africa—occurring in Egypt, Nubia, &c.) is abundant in the streams and pools of the Cape Verde archipelago; and wherever there is sufficient water for the permanent existence of the Hydradephaga, there we may anticipate that it will eventually be found. But as our late sojourn amongst the islands was during the driest season that had been known for many years, we obtained it only in S. Antão, S. Vicente, and S. Iago; nevertheless it was taken by Mr. Gray, during February 1864, in S. Nicolão also. In S. Antão (in which island it is called by the inhabitants "D'agua") it was met with likewise by Dr. H. Dohrn. In its mode of life it is extremely gregarious; and the vast multitudes of it which are often seen, congregating on the surfaces of the pools and streams, at intermediate altitudes, could not fail to attract the attention of even an ordinary observer.

44. Dineutus subspinulosus.

D. anguste suboblongo-ellipticus, tenuiter subrecurvi marginatus, vix subolivaceo-niger, sed in limbo (margine recurvo angusto apiceque exceptis) viridi-àeneo tinctus, subopacus; elytris tenuissime et levissime striatis, ad apicem truncatis et minute serratis, utrinque pone apicem anguste fisso-emarginatis et spinis acutis instructis; antennis pedibusque piceis; pedibus piceo-ferrugineis.—Long. corp. lin. 3½.
Cyclopus australis, *Déj., Cat. (3e édit.)* 66 (1833).

*Habitat* S. Iago; in rivulo quodam ad San Domingos à Dom. Gray captus.

The present *Dineutes* is so very much smaller and narrower than the last one that, taking also into account its anteriorly-rounded epistome and the sharp subapical spine on either side of its elytra*, it might well appear at first sight to be generically distinct; yet its total freedom from a visible scutellum, combined with its transverse labrum, the serrated apex of its elytra, and the depressed, posteriorly-rounded last segment of its abdomen, are all strictly in accordance with the *Dineutes*-type. Indeed I feel pretty certain that it is the *D. subspinosus* of Klug—a species which is widely dispersed over the African continent (having been recorded from Senegal and Nubia, as well as from Madagascar) and which is stated to occur likewise in the Isle of France and the East Indies†. And it is the more probable that this identification is correct, from the fact that the *D. subspinosus* is mentioned by Erichson amongst his supposed “Angolan” Coleoptera—a considerable number of which I have already stated were not from Angola at all, but from the Cape Verde archipelago. Nevertheless I should add that the description of the subspinosus given by Aubé does not call attention to the little fissure, or emargination, which exists (at least in the example before me) immediately within the subapical spine of each elytron; but as he speaks of an *additional* spinule being occasionally developed behind the other, it is very probable that this small cavity may be merely the result of the margin behind the spine being produced into an anguliform rudimentary denticle. If however it should prove hereafter to be specifically distinct from the *subspinosus*, which I do not in the least anticipate, I would then propose for it the trivial name of *armatus*.

The single example from which I have drawn-up the above diagnosis was captured by Mr. Gray in the little stream at San Domingos, in S. Iago.

* The structure of the elytral apex of this *Dineutes*—which is not only minutely serrated (as in the *D. arenus*), but furnished behind the serrated portion with a small and deep fissure, or narrow excavation, which is armed at the upper extremity with an acute spine—is exceedingly curious.

† I possess a *Dineutes*, captured by the late Dr. Schaum in Egypt, which does not seem to differ specifically from the Cape Verde one; and this, therefore, affords additional evidence in favour of the latter being the true *subspinosus*. 
Fam. 5. HELOPHORIDÆ.

Genus 28. OCHTHEBIUS.
Leach, Zool. Miscell. iii. 91 (1817).

45. Ochthebius 4-foveolatus.

Ochthebius 4-foveolatus, Woll., Ins. Mad. 91 (1854).
— —, Id., Cat. Mad. Col. 28 (1857).
— —, Id., Col. Atl. 73 (1865).

Habitat S. Vicente; in aquosis ad Madeiralzinho à Dom. Gray lectus.

Of the present Ochthebius, which is almost universal throughout the Madeiran and Canarian Groups (probably indeed quite so), I have seen hitherto but a single example from the Cape Verdes. It was taken by Mr. Gray, at Madeiralzinho, in S. Vicente; and it appears to differ in no respect from the Madeiran and Canarian type. We may expect to meet it pretty generally, in the vicinity of the pools and streams, in intermediate altitudes.

Genus 29. HYDRÆNA.

Kugelann, in Schneid. Mag. i. 578 (1794).

46. Hydræna quadricollis.

— —, Id., Col. Atl. 75 (1865).

Habitat S. Antão, et S. Vicente; in aquosis ad margines aquarum, interdum etiam in aquis ipsis, rarissima.

The close and not very coarse sculpture of this little Hydræna, combined with its rather pale, diluted-brown hue (the head only being black) and its square prothorax, at once identify it with the Canarian H. quadricollis—which I took, at a low elevation, in Teneriffe. It appears to be rare in the Cape Verde archipelago, though I suspect widely distributed over the intermediate altitudes. I met with it in the Ribeira da Babosa in S. Antão, and also (more abundantly) at Madeiralzinho in S. Vicente—in which latter locality a single example was obtained likewise by Mr. Gray. It occurs also in Egypt (and probably, therefore, throughout northern and central Africa generally), from whence I possess examples captured by the late Mr. Melly, as well as others which were found by Dr. Schaum (who regarded them as an undescribed species) at Cairo.
Fam. 6. HYDROPHILIDÆ.

Genus 30. HYDROXENUS (nov. gen.).

Genus inter Laccobium et Berosum situm, cum illo corpore parvo, colore, sculpturâ, oculis demissis, sternorum structurâ, pedibus breviusculis tibisique extus spinulosis, apice valde calcaratis nec-non posticis sensim arcuatis, sed cum hoc antennis 7-articulatis pedibusque posticis partim longissime pilosis congruens. Corpus parvum, ovale, luridum, dense punctatum; mesosterno (ut in Laccobio et Beroso) postice carinato; metasterno (ut in Laccobio) fere simplici (apice in medio minutissime canaliculato et in spinulam parvam brevem inter coxas posticas producto); aliis amplis; antennis 7-articulatis, art. 1° et 2° inter se arcte connexis et conjunctis clavato-subfusiformibus, illo elongato subflexuoso apice gradatim latiore, hoc multo breviore conico, 3° parvo (nee min- nutissimo) obconico, 4° brevi sed gradatim multo latiore oblique subpoculiformi, reliquis clavam magnam elongatam laxam pubes-centem triarticulatum omnino subpoculiformi surgentem efficien-tibus; pedibus (saltem anterior et posticis) breviusculis, tibiis (ut in Laccobio) parum robustis, apicem versus gradatim paulo latioribus, apice valde calcaratis, extus breviter setulosis (anticis ad an-gulum externum spinulâ longiore extante armatis), posticis sen-sim incurvis, tarsis posticis subitus longissime ac dense pilosis, anticus in marius art. 2° et 3° (præsertim illo) subito incrassatis. Ab uext, aqua, et ëros, advena.

The two curious little insects for which I have established the present genus seem exactly intermediate between Laccobius and Bero-sus—combining the small size and peculiar colour and sculpture, no less than the comparatively short legs and externally-setulose, rather robust tibiae (the hinder pair of which are, in like manner, subarcuate) of the former with the 7-jointed antennæ* and partially-pilose pos-terior legs of the latter. In general contour they have something in common with the members of both groups; for although their palish, somewhat lurid hue and close punctation, added to their minute bulk, less convex body, and less prominent eyes, are at first sight more on the Laccobius-type, yet their exact outline is also a good deal suggestive

* M. Duval's is the only diagnosis I have yet seen which appears to me to be cor-rect as regards the antennæ of Berosus. Erichson, Mulsant, Lacordaire, and others all speak of them as 8-jointed; yet I am satisfied that there are but seven articula-tions in at any rate the two species (spinosus and luridus) which I have just carefully examined. The first and second joints (particularly the former) are long and more or less clavate, the third is small and obconic, the fourth is much broader (but extremely short and thin) and obliquely cup-shaped, and receives the large, elongate, pubescent, triarticulated club—which is composed of the fifth, sixth, and seventh.
of diminutive *Berosi*. Their antennæ, which I have examined with the greatest care, seem to me to possess undoubtedly but seven arti-
culations—the relative proportions of which are much the same as 
those of *Berosus*, except that the first joint is less clavate and the 
second shorter and more conical (the apex of the former and the base 
of the latter being so precisely of equal breadth that the two together 
form one continuous curve). The first and second joints indeed are 
perhaps *more* after the pattern which obtains in *Laccobius*; and were 
it not for the omission of the *minute third* one which is unmistakable 
in that genus, their antennæ would not differ materially from 
those of the *Laccobius*; but the fact of this *elimination* implies, even 
of itself, a still closer affinity with the *Berosi*.

As regards other peculiarities (apart from the general *intermediate* 
structure already alluded to), the spinule at the outer apical angle of 
the anterior tibiae in *Hydroxenus* is exceedingly elongate and out-
wardly directed, the second and third joints (the former of which is 
the largest) of the front feet of its males are suddenly and greatly 
thickened (more so than is the case in *Laccobius*), and its two hinder 
tarsi are densely clothed beneath with extremely long hairs—in which 
latter respect it recedes from *Laccobius*, and approaches *Berosus*, 
though, at the same time, the scattered pile of the *Berosi* is not 
concentrated in quite the same manner, or so exclusively in the same 
place, as appears to be the rule with *Hydroxenus*. Aided no doubt 
by this elongate brush-like appendage to the under surface of their 
posterior feet, the *Hydroxeni* seem (like the *Berosi*) to be skilful 
swimmers—far more so than the somewhat slow and awkward *Lac-
cobii*.

47. *Hydroxenus subpictus*, n. sp.

*H.* ellipticus, nitidus, sat dense et distincte punctulatus; capite nigro.
clypei lateribus ante oculos late testaceis; prothorace testaceo, in 
maculâ magnâ discali longitudinali (utrinque in medio plus minus 
sed paulo indenteratâ) nigro ornato; coleopteris testaceis, ubique 
limbo excepto nigro-irroratis, necnon in fasciâ centrali transversâ 
brevissimâ lunulato-dentatâ obscurissimâ (plus minus fracta atque 
etiam obsoletâ) maculâque parvâ longe intra humeros sitâ nigro-
ornatis, punctis majoribus et vix seriatim dispositis; antennis 
ferrugineis, ad basin, palpis pedibusque testaceis.—Long. corp. 
lin. 1½.

*Habitat* S. Iago; aquas fluentes, præcipue versus margines rivu-
lorum, in intermediiis, colens.

The great *primâ facie* resemblance of this little Palpicorn—in
HYDROPHILIDÆ.

size, colour, and sculpture—to the common European Lacobius minutus, whilst even generically distinct from it, is very remarkable. Its head (with the exception of a small space at the edges of the clypeus, in front of either eye), and a laterally abbreviated patch down the centre of its (otherwise testaceous) prothorax, are black; and its elytra, although pale, are nevertheless, except along their sides and apex, densely mottled with blackish points and obscure, cloudy, suffused markings—much as in the L. minutus. The sculpture is rather close, and the elytral punctures (which are much larger than those on the head and prothorax) have merely a tendency to arrange themselves in longitudinal rows. A single example of it was first captured by Mr. Gray, in the stream at S. Domingos, in S. Iago; and I afterwards met with it abundantly in the Ribeira dos Orgãos, of the same island.

48. Hydroxenus minor, n. sp.

II. breviter ovalis, nitidissimus, parce leviter punctulatus; capite nigro, clypei lateribus minute testaceis; prothorace testaceo, in maculâ permagna disseili latâ transversâ (subiunatâ, sed antice plus minus 4-partitâ) nigro ornatis; coleopteris testaceis, ubique (limbo excepto) nigro irroratis, necon in fasciâ centrali transversâ brevissimâ humulato-dentatâ obscurissimâ (plus minus fractâ atque etiam obsolatâ) maculâque parvâ longe intra humeros sitâ nigro ornatis, punctis majoribus et evidenter seriâtâm dispositâs; antennis ferrugineis, ad basin, palpis pedibusque testaceis.—Long. corp. lin. ½—1.

Habitat S. Iago; in locis similibus ac praecedens.

Obs.—A præcedente differt corpore multo minore ac minus elliptico, nitidioere (nullo modo alutaceo), paulo levius ac minus dense punctato (punctis in elybris evidentius seriâtâm dispositâs), clypei lateribus angustius obscuriusque testaceis, necon maculae nigrâ disseili prothoracieâ multo latiore vel magis transversâ, antice plus minus 4-furcatâ.

Found abundantly, by myself, in company with the preceding species, in S. Iago—namely, in the stream of the Orgãos ravine. It is considerably smaller, and a little more oval (or less elliptic), than the II. subpictus, rather more highly polished (the surface not being at all alutaceous, even under a high magnifying-power), and somewhat more lightly and less closely punctured—the punctures on the elytra, moreover, being more evidently arranged in longitudinal rows. As regards markings, the edges of its clypeus (in front of either eye) are less broadly, and more obscurely, testaceous; and the dark patch on its prothoracic disk is very much broader, or more
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transverse, more lunulate in outline, and divided in front (more or less evidently) into four branches, or parts.

Genus 31. HELOCHARES.

Mulsant, Col. de France (Palpic. Errata), 197 (1844).

I refer the Palpicorn which I have described below to Helochares because its mesosternum is totally unprovided with a longitudinal keel, and because I cannot think that it ought to be separated from that group. Nevertheless I am unable to detect any trace of even a tubercle on its mesosternum, which seems to me to be perfectly simple; but since “mesosternum simplex” was one of the actual characters given by Erichson for his Hydrobius dilutus, which is nevertheless now regarded as an Helochares, that fact will not militate against my identification of the insect. In any case it may be known generically from Philhydrus, not merely by its uncarinated mesosternum, but likewise by its clypeus being more scooped-out in front, by the last articulation of its antennae being less thickened, and by its maxillary palpi being somewhat slenderer still, with their second, third, and fourth joints (although gradually diminishing a little in length) less unequal in their proportions—the ultimate one being relatively less shortened.

49. Helochares dilutus.

*H.* ovatus, haud valde convexus, dense, minutissime et leviter punctulatus, sæpius plus minus testaceo-niger (rarius niger, antice et in limbo dilutior); clypeo antice emarginato; elytris baud striatis, sed sæpius obscure subpellucide lineolato-decoratis; antennis (art° ult° oblongo) fusco-brunneis, basi, palpis (gracilimis, artis 2º, 3º et ulto gradatim paulo brevioribus, ulto penultimo paulo breviore) tarisque (posticis haud valde elongatis) testaceis, femoribus tibiosisque picescentioribus; mesosterno simplici.—Long. corp. lin. 1½—1¾.

Hydrobius dilutus, Erich., in Wiegm. Archiv, ix. 228 (1843).
Helophilus melanophthalmus, Muls., Palpic. de France, 137 (1844).

Habitat S. Vicente; in aquosis ad Madeiralzinho captus.

Taken by Mr. Gray and myself in S. Vicente—adhering to the undersides of sodden leaves, and wet stones, in the small stream which issues from the dripping rocks at the base of the perpendicular mountain-sides at Madeiralzinho. Independently of the structural characters above alluded to, which tend to remove it into a different genus, it may be known from the Philhydrus melancephalus, even prima facie, by being a little more ovate and less convex, and on the
average smaller and paler—by its punctuation (although extremely fine) being if anything a trifle more apparent, causing the surface to be usually somewhat less shining—by its elytra being altogether free from a sutural stria, and (except in occasional darker specimens) with a tendency to be absolutely lineated (as though from obscure lines shining through a subpellucid surface)—and by its two hinder feet being perceptibly less elongate. I have little doubt that it is conspecific with (though perhaps a small state of) the dilutus of Erichson, which is said to occur in south-western Europe and throughout the greater portion of Africa (having been received from Egypt and even Madagascar), and which Erichson first described amongst his supposed "Angolan" Coleoptera*.

Genus 32. Philhydrus†.

Solier, Ann. de la Soc. Ent. de France, iii. 315 (1834).

50. Philhydrus melanoccephalus.

P. ovalis, convexus, dense, minutissime et levissime punctulatus, vel niger limbo paulo dilutior, vel plus minus testaceo-niger; clypeo antice subtruncato; elytris stria suturali postice impressi; antennis (art° ult° globoso-ovato) fusco-brunneis, basi, palpis (art. 2° reliquis multo longiore, ult° penultimo multo brevior) tarsisque testaceis, femoribus tibiisque piceis; mesosterno per medium altissime lamellato-carinato.—Long. corp. lin. 1 1/3—2 2/3.

Hydrophilus melanoccephalus, Oliv., Ent. iii. 39. 14 (1795).
Philhydrus melanoccephalus, Woll., Ins. Mad. 98 (1854).
—— ——, Id., Cat. Mad. Col. 32 (1857).
—— ——, Id., Cat. Can. Col. 91 (1864).
—— ——, Id., Col. Atl. 77 (1865).

Habitat S. Antão, S. Vicente, S. Iago, et Brava; in aquos ad mar-gines aquarium, vel stagnantium vel fluentium, vulgaris.

I have given a diagnosis of this common insect, in order to call attention to some of the main points in which it differs from the preceding one; for it is so extremely variable, both in size and hue, that the smaller examples of it might seem at first sight to merge into the larger ones of the latter. I need scarcely mention, however, that a closer inspection will bring to light an abundance of permanent cha-

* If however the above Helochares should prove eventually to be distinct from the dilutus, which I hardly anticipate, I would then (having already given a full diagnosis of it) propose for the species the name of simplex.
† Apart from all other characters, the genus Philhydrus may be known by its mesosternum being raised along the centre into an elevated lamelliform keel, and by its maxillary palpi being greatly elongated—the second and third joints (especially the former) being very long, and the ultimate one considerably shorter than either.
racters of sufficient importance to assign the two species to even different groups. Thus, apart from the structural features, of keeled mesosternum and the different proportions of the terminal joint of the antennae and the last three of the maxillary palpi, the *P. melanoecephalus* (although most inconstant in dimensions and colour) is on the average a larger and darker insect than the *Helochares dilutus*; it is also more oval (or less expanded posteriorly), more convex, and (if anything) even still more lightly punctulated; and its elytra have each of them a deep sutural stria, evanescent in front but very conspicuous posteriorly.

The *P. melanoecephalus*, which is common in most parts of Europe and northern Africa, and which is almost universal in the Madeiran and Canarian Groups, will probably be found to be generally distributed over the Cape Verde archipelago, occurring principally at rather low and intermediate altitudes. It was taken by Dr. H. Dohrn, Mr. Gray, and myself (in the Ribeira de João Affonso, Curral das Vacas, Tarrafal, &c.) in S. Antão; and by Mr. Gray and myself at Madeiral-zinho in S. Vicente, as well as in S. Iago, and in the Ribeira do Sorno in Brava.

Genus 33. **STERNOLOPHUS**.


51. Sternolohophus Solieri.

*S. ovalis*, niger sed obsolete subæneo-viridi tinctus, nitidus, minutissime punctulatus (punctulis nisi oculo fortiter armato haud observandis); capitis lineâ frontalì triarcuâtâ alteràque intra oculos necnon duabus’(anticâ sc. curvatâ, sed posticâ oblique rectâ) versus utrumque latus prothoracis, omnibus plus minus irregularibus, punctato-impressis; prothoracis angulis rotundate obtusis; elytris sieribus circa 4 punctato-notatis; antennis piccis, ad basin palpisque rufo-testaceis; pedibus rufo-piceis; metasternali mucrone ultra coxas posticas producto.—Long. corp. lin. 5.

Sternolohophus rufipes, *Sol. [nec Fab.]*, loc. cit. (1834).


*Habitat* S. Vicente, et S. Iago; in aquis hine inde vulgaris.

The few *Sternolohophi* hitherto recorded appear to be chiefly African, though one is stated to occur in the East Indies. I have little doubt that the present species is the *S. Solieri* of Laporte (the *rufipes* of Solier, though apparently *not* of Fabricius), which is found in Senegal, Egypt*, &c., and which according to Lacordaire is the type of the

* I possess an Egyptian specimen which (whatsoever it may be) is certainly conspecific with the Cape Verde *Sternolohophus*.
genus; yet Erichson, in the enumeration of his supposed "Angolan" Coleoptera, includes a *Sternolophus* which he identifies with one from Madagascar—namely, Laporte's *unicolor*. It is of course possible that the species determined by Erichson was truly from Angola, and perhaps therefore truly the *unicolor*; nevertheless since so many of the Coleoptera which he assumed to be Angolan were in reality from these islands, and it seems scarcely likely that the collector who so-journed for awhile (*en passant*) at the Cape Verdes would overlook so large and common an insect as the *Sternolophus* now under consider-
ation, I should be inclined to suspect that it was our present species to which Erichson really alluded, and that he wrongly identified it with the Madagascar *S. unicolor* (instead of the more northern *S. Solieri*) through the error which he was led into in having been made to believe that *all* his material was from Angola. Be this however as it may, I feel satisfied that the Cape Verde *Sternolophus* is identical with the one from Senegal and Egypt (namely the *Solieri*), and not with the *unicolor* from Madagascar*.

Although, from the scarcity of water during the unusually dry sea-
son in which we visited the islands, it was only in S. Vicente and S. Iago that we met with this *Sternolophus*, there can be little doubt that it will be found to permeate the greater portion of the archi-
pelago—occurring principally at intermediate altitudes. The speci-
mens from S. Vicente (whence likewise it has been communicated by Mr. Miller) were taken at Madeiralzinho, and the S. Iago ones at San Domingos.

Genus 34. **HYDROBIUS.**

*Leach, Zool. Miscell. iii. 93 (1817).*

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* *Sternolophus* seems to differ so very slightly from *Hydrous* that I am doubt-
ful whether it ought to be regarded as more than a mere Section of the latter. According to *Lacordaire*, it embraces merely a few tropical species of the *Hydrous-
type* in which the mentum, although rounded in front, is *so bent*, or corrugated, in the centre as to cause it at first sight to *appear* emarginate, and in which also the last joint of the maxillary palpi is longer than the preceding one. In the Cape Verde species, however, the ultimate and penultimate articulations appear to be as nearly as possible of *equal* length, so that the latter of the above generic conditions can scarcely be worth much; and yet, unless I am greatly mistaken, this very species is the actual *type* of the group. Erichson apparently did not ac-
knowledge *Sternolophus* as a distinct genus, for he cited the *S. unicolor* as an "*Hydropilus*" (i.e. *Hydrous*—as now understood)—merely indicating, within brackets, that it belonged to the *Sternolophus*-section. He also described a new *Hydrous* (or, as he there calls it, "*Hydropilus*"), under the name of *H. ango-
ensis*; but *that* one cannot be our present insect, for he not only asserts the *fe-
mora and tibie* to be black, but likewise the metasternal mucro to be *so* very short as not to project behind the posterior coxae—whereas in the Cape Verde species it is produced considerably beyond that point.
52. Hydrobius phalacroides, n. sp.

*H.* ovalis, valde convexus, æneco-niger, nitidus, ubique dense punctatus (punctis in elytris profundis); oculis magnis sed demissis; prothorace ad latera interdum obsolete dilutio; elytris singulis lineâ suturali antice evanescente impressis; antennis palpisque rufotestaceis, his ad apicem ipsissimum et illarum clavæ fusco-piecis; pedibus rufo-piecis, tarsis vix diluitoribus.

*Variet* interdum obscure viridi tinctus, rarius omnino subniger.—Long. corp. lin. 3/4-1.

*Habitat* S. Antão, et S. Vicente; in intermediiis, præcipue ad rupeas aquosas, rarissimus.

The oval outline, very convex body, and more or less brassy-black hue of this little *Hydrobius* (which has sometimes also a slightly greenish tinge, and is rarely, if ever, quite free from a faint metallic lustre), combined with its dense and distinct punctation (especially of the elytra), will sufficiently characterize it. It appears to be exceedingly rare, and confined to damp spots of intermediate altitudes, occurring principally amongst sodden leaves and refuse on dripping rocks. A single example was taken by Dr. H. Dohrn, in the Ribeira de Garça, towards the north of S. Antão; and I subsequently met with it in the Ribeira da Babosa, in the central district of the same island, as well as at Madeiralzinho in S. Vicente.

**Fam. 7. SPHÆRIDIADÆ.**

Genus 35. CYCLONOTUM.

(Dejean) Erich., *Köf. der Mark Brand.* i. 212 (1837).

53. Cyclonotum orbiculare.

*Hydrophilus orbicularis, Fab., Ent. Syst.* i. 184 (1792).

*Ocelostoma orbiculare, Brullé, in Webb et Berth. (Col.) 58 (1838).


————, Id., Col. Atl. 80 (1865).

*Habitat* S. Antão, S. Vicente, S. Nicolão, S. Iago, et Brava; in aquis et aquosis, vulgaris.

The common *C. orbiculare* will doubtless be found universally throughout the Cape Verde archipelago, though hitherto it has been captured only in S. Antão, S. Vicente, S. Nicolão, S. Iago, and Brava—in the first of which it was taken by Dr. H. Dohrn, Mr. Gray, and myself, in the second and fourth by Mr. Gray and myself, in S. Nicolão by Mr. Gray, and in Brava by myself. It occurs in most parts of Europe and in northern Africa, and has been reported from
Madagascar and the East Indies. I have myself met with it in nearly every island of the Canarian Group; but it is somewhat singular that, although thus abundant at the Canaries, it has not yet been observed in the Madeiran archipelago.

Genus 36. **DACTYLOSTERNUM**.


54. *Dactylosternum abdominale*.

*Sphærium abdominale, Fab., Ent. Syst. 1. 79 (1792).*  
*Cœlostoma abdominale, Brullé, in Webb et Berth. (Col.) 58 (1838).*  
— — —, *Id., Col. Atl.* 80 (1865).

*Habitat* S. Iago, et Brava; sub quisquiliis (præsertim humidis, putridis) in intermediiis, rarissimum.

The wide-spread *D. abdominale*, which is not uncommon at low elevations in the Madeiran and Canarian Groups, has been observed hitherto but sparingly at the Cape Verdes—where it occurs beneath putrid vegetable substances, in damp spots of intermediate altitudes. I have taken it at Sta Catharina in the interior of S. Iago, and under a rotten Banana-stem, close to the Povoação, in Brava. It is an insect of Mediterranean latitudes, but which has acquired a wide geographical range—being reported from Madagascar, Bourbon, and the East Indies; and I possess examples of it which were found by the late Mr. Bewicke in St. Helena.

Genus 37. **CERCYON**.

Leach, *Zool. Miscell.* iii. 95 (1817).

55. *Cercyon fomicola*, n. sp.

*C. ovale; capite prothoraceque sat profunde et dense punctatis, illo nigro, hoc rufo-ferrugineo; elytris parum profunde punctato-striatis, interstitiis subconvexis necon minute punctatis, rufo-ferruginis, sœpius in disco postico obsolete subfasciato-nebulosis; antennis palpisque elongatis, testaceis, illarum clavâ magnâ obovatâ ferruginæ; pedibus piceo-testaceis.—Long. corp. lin. 1–1."

*Habitat* S. Antão, S. Iago, et Brava; stercus bovinum in intermedii inferioribusque colens.

A pale and oval (or somewhat oblong) *Cercyon* which is a little, at first sight, on the common *C. quisquilium* type, though in reality totally distinct in all its characters. It may be known by its head
being black, whilst the rest of the surface is more or less rufo-ferruginous, though *generally* with a very obscure and ill-defined cloudy fascia across the posterior disk of its elytra, which is suffused in front but more traceable (or abruptly bounded) behind. Its entire surface is densely and distinctly punctured, its elytral striae are deeper, and the interstices more convex, than is the case in the *C. quisquilium*, and its antennæ and palpi are (if anything) longer—the club of the former, also, being a little larger and more obovate.

The *C. fimicola* appears to be widely spread over the Cape Verde archipelago, where I suspect that it will be found ultimately to be universal—occurring principally in the dung of cattle, at rather low and intermediate altitudes. I have captured it at Tarrafal, as well as in the Ribeira da Babosa, of S. Antão; near the Villa da Praia, and at San Domingos, in S. Iago; and in the Ribeira do Sorno, in Brava; and in S. Antão it was met with likewise by Dr. H. Dohrn.

56. *Cercyon putricola*, n. sp.

*C. rotundato-obovatum*, nigrum; capite prothoraceque profunde et dense punctatis, hoc ad latera vix dilutior; elytris valde profunde punctato-striatis, interstiiis valde convexis necnon minute et parce punctulatis, ad apicem (necon obscurius per latera) saturate testaceis; antennis palpisque elongatis testaceis, illarum clavâ elongatâ fusceo-ferrugineâ; pedibus rufo-piceis.—Long. corp. lin. vix 1 ½.

*Habitat* S. Iago; sub quisquiliis in aquosis intermedium, rarior.

So far as observed hitherto, this appears to be a much rarer *Cercyon* than the last one, and to occur principally beneath decaying vegetable refuse in damp, marshy spots of intermediate altitudes. It was taken by Mr. Gray and myself in the interior of S. Iago—namely, in the Ribeira dos Orgãos and at *S*¹ Catharina. It is larger, broader, and more rounded than the last species; and it is altogether black—except the limbs and the apex of the elytra, and usually also (though more obscurely) the lateral margins of the elytra and prothorax. Its head and prothorax are densely and distinctly punctured; its elytra have their striae very coarse and deep, but the interstices minutely and sparingly punctulated; and the basal (obconic) joint of the antennal club is longer than that of the *C. fimicola*.

Genus 38. **CRYPTOPLEURUM**.


57. *Cryptopleurum sulcatum*, n. sp.

*C. subrotundatum*, ferrugineum, subnitudum. parce et breviter fulvo
pubescens; capite prothoraceque dense et profunde punctatis, illo nigrescentiore depresso, fronte in medio leviter canaliculatâ, hòc ad latera ipsissima (in medio) angulato; elytris apicem paulo dilutioribus, valde profunde et grosse crenato-sulcatis, interstitiis (præsertim postice) alte costatis ac minute seriatim creulatis; antennis (clavâ ferrugineâ exceptâ), palpis pedibusque plus minus picco-tes-taceis.—Long. corp. lin. ¼.

Habitat S. Antão, et S. Iago: sub quisquiliis in humidis et aquosis (minus frequens in stercore), rarissimum.

In the proportions of its 9-jointed antennæ, the curious little insect described above is identical, not merely with Cercyon, but likewise with the other groups immediately allied to the latter; nevertheless the structure of its prothorax and tibie, and (above all) the angulated edges of its prothorax, at once assign it to Cryptopleurum—with which it further agrees in its minutely and sparingly fulvo-pubescent surface, and the general character of its sculpture (which however is greatly exaggerated as compared with that of the common European C. atomarium). But specifically it is marvellously distinct from the atomarium,—being not only a little smaller, rounder, and paler, but with its prothorax relatively a trifle shorter and more convex, its forehead channelled, and its sculpture coarser (the elytra being very much more deeply crenate-sulcate, with their interstices immensely more convex—being raised, especially behind, into greatly elevated costæ).

The C. sulcatum seems to be one of the rarest of the Cape Verde Coleoptera, occurring principally beneath wet vegetable refuse in damp spots of rather low and intermediate altitudes. Nevertheless it is found occasionally in the dung of cattle also. I met with it at Tarrafa in the south of S. Antão; as well as in the Ribeira dos Orgãos, and at S. Catharina, in S. Iago—in the last of which localities it was captured likewise by Mr. Gray.

Fam. 8. CYBOCEPHALIDÆ.

Genus 39. CYBOCEPHALUS.
Erichson, in Germ. Zeitsch. v. 441 (1844).

58. Cybocephalus nitens, n. sp.
C. globoso-ovalis, ater, nitidissimus (nullo modo alutaceus) et ubique punctulis minutiissimis (nisi oculo fortiter armato baud observandis) parce irroratus; antennis pedibusque breviusculis, fusco-testaceis, illarum articulo ultimo valde truncate sed haud brevissimo.—Long. corp. lin. $\frac{1}{2} - \frac{2}{3}$.

Habitat S. Antão, et Fogo; in intermediiis rarissimus.
Judging from the very few examples which I have yet seen of this little globose *Cybocephalus*, it appears to be just perceptibly larger and wider than the Madeiran and Canarian *C. sphaerula*, of a still more intense black, and totally free (even when viewed beneath the microscope) from any appearance of the alutaceous sculpture which is so conspicuous in that species. Its prothorax, also, seems to be almost entirely concolorous at the edges (if not indeed quite so); its minute punctures are even finer, and a trifle more remote; and the last joint of its antennal club, although equally truncated at the apex, is very perceptibly longer. Some of these distinctive characters are more in accordance with those of the *C. levis* (which I captured in Lanzarote, one of the eastern islands of the Canarian Group); but that insect, which is apparently a trifle smaller, has its prothorax quite impunctate, but the punctures of its elytra as evident as those of the *sphaerula*. Of the two, however, I should say that it is more allied to the *levis*; and it seems to be identical with an unnamed species in my collection which was found by the late Mr. Melly in Egypt, but totally distinct from a larger and more elongated one (with corrected anterior angles to its greatly developed prothorax) which was captured by Mr. Bewicke at the Cape of Good Hope, and which may perhaps be the *C. elongatulus* of Boheman.

The *C. nitens* was taken by Mr. Gray in the Ribeira Fria, and the Ribeira da Babosa, of S. Antão, and by myself at the Monte Nucho in Fogo.

**Fam. 9. CORYLOPHIDÆ.**

**Genus 40. ARTHROLIPS.**


59. Arthrolips testudinalis, n. sp.

*A. obovato-ovalis, convexus, infuscat rubido-ferrugineus, minutissime crebre punctulatus ac dense sed demisse fulvo-pubescentis; prothorace fere semicirculari, angulis posticis fere rectis, in limbo (basali excepto) gradatim magis testaceo ac subpellucido, per basin in medio obsolete transversim impresso; elytris rubido-ferrugineis sed (apice excepto) per marginem lateralem et suturam (præsertim circa scutellum) lute et gradatim obscurioribus, aut nigro nebulosis, ad apicem singulatim subrotundatis; antennis (brevibus) pedibusque testaceis.—Long. corp. lin. ½—¾.*

*Habitat* S. Iago; sub cortice arido laxo emortuo *Fici* magnæ prolapse indigenæ in intermediis copioso deprehensus.

The present Arthrolips is rather larger than the generality of the
few known species of that little group; and it is further distinguished by the peculiar colour of its elytra—which are usually of a clear reddish-ferruginous hue, but gradually clouded (or blackened) towards either lateral margin, as well as around the scutellary region and along the suture (the darker portions, however, terminating at some little distance before they reach the apex). The gradual blending of these two tints imparts a somewhat tortoiseshell-like hue to the elytra, which in the more highly coloured examples might be described (at first sight) as black, with an oblique, longitudinal reddish-ferruginous dash down each of them—becoming gradually broader posteriorly, until they coalesce at the apex (which is consequently altogether free from cloudy markings). Its prothorax is but a very slightly smaller segment than a semicircle, and (as in the other species) pale and subpellucid anteriorly—merely the basal portion and disk being much darkened; and it has an obsolete impressed line across the centre behind. The entire upper surface is densely and minutely punctuated, and clothed with a rather coarse and short, but very decumbent, sericeous, golden-fulvous pile. It is perfectly distinct from the comparatively small and anteriorly attenuated A. obscurus (which occurs in southern Europe and in Madeira), as well as from the Madeiran A. aequalis (the intermediate antennal joints of which are very remarkable); and, judging from the diagnosis, it seems sufficiently removed likewise from Duval's A. rufithorax (from the south of France)—in which the elytra, except at the palish apex, are concolorous. In the proportions of its (10-jointed) antennae it agrees best with the piceum—though the seventh, or anteclaval, articulation is perceptibly larger than is the case in that species, and forms so completely a little basal portion of the club itself that the latter might almost be regarded as 4-jointed *.

The A. testudinalis has been observed hitherto only in the interior of S. Iago—where I captured it abundantly beneath the dead and loosened bark of a gigantic native fig-tree, which had been recently felled, in the Ribeira dos Orgãos.

Genus 41. ORTHOPERUS.


* In the A. testudinalis the first and second antennal joints (especially the former) are elongate and robust, the third is very considerably smaller and shorter, and subcylindrical, the fourth and fifth are extremely minute, the sixth is a trifle wider but even shorter still (its length being only just appreciable beneath a high power of the microscope), the seventh, although small, is considerably larger, and obconic, and so closely applied to the following one as almost to constitute a basal portion of the largely-developed 3-articulated club.
60. Orthoperus atomarius.

—— ——, *Id., Col. Atl.* 93 (1865).

*Habitat* S. Vicente; à Dom. Gray in domo quádàm ad Madeiralzinho semel lectus.

A single example of this very minute insect, which occurs (generally on the inner walls of old and neglected houses, outhouses, cellars, &c.) in central and southern Europe, and which I captured also in Madeira, was taken by Mr. Gray, in the house of G. K. Rendall, Esq., at Madeiralzinho, in S. Vicente; but it is the only specimen which I have yet seen from these islands. From its pale, rufo-testaceous hue and diminutive size, it might at first sight be almost mistaken for one of the smallest examples of the *Sericoderus lateralis*; nevertheless, apart from its *generic* characters (the more conspicuous of which are the different proportions of its nine-jointed antennæ, and the almost unproduced hinder angles of its totally different prothorax), it may easily be recognized, on a closer inspection, by its *glabrous* and more highly polished surface, distinct but remote punctation, and more regularly oval, or rounded-oval, outline.

Genus 42. SERICODERUS.


61. Sericoderus lateralis.

Cossyphus lateralis (*Meg.*), *Gyll., Ins. Suec.* iv. 516 (1827).
—— ——, *Id., Cat. Mad. Col.* 142 (1857).
—— ——, *Id., Col. Atl.* 95 (1865).

*Habitat* S. Antão, S. Vicente, S. Iago, et Brava; sub quisquiliis, vulgaris.

The common European *S. lateralis*, which abounds in the Madeiran and Canarian Groups, and which was captured by the late Mr. Bewicke even at the Cape of Good Hope, occurs at nearly all elevations in the Cape Verde archipelago—from the sea-level to the summits of the mountains. It is found under vegetable refuse, and was taken by Mr. Gray and myself in S. Antão, S. Vicente, S. Iago, and Brava. Some of the examples (indeed the majority of them) from these islands are so small, compared with others which correspond with the more northern type, that, before an accurate examination, I had imagined
that two species must certainly be included amongst the extensive series which is now before me; but, after inspecting the latter with great care, and comparing the antennae of the most extreme individuals beneath the microscope, I can detect no difference except size between even the largest and the smallest of them; and since moreover the states seem to merge into each other by imperceptible degrees, I conclude, merely, that it is the tendency of the species to attain on the average a more diminutive stature in the Cape Verde Group than is usually the case elsewhere.

Fam. 10. PTILIADÆ.

Genus 43. ACROTRICHIS.


62. Acrotrichis invisibilis.


Habitat S. Antão, et S. Iago; sub quisquiliis in humidis, hinc inde vulgaris.

The excessively diminutive size of this almost microscopic insect, which is the only member of the Ptiliadæ hitherto detected in the Cape Verdes, will prevent its being confounded with anything else with which we have here to do. But, apart from its infinitesimal dimensions (for it does not measure a quarter of a line in length), it may be further recognized by its oblong outline, the almost unproduced hinder angles of its prothorax, its dull, brownish-black hue (the apical portion of the elytra, however, being gradually diluted, or testaceous), its densely cinereo-pubescent surface, and its very pallid limbs. Although captured as yet in only two of the islands, it will probably be found to be generally spread over the archipelago; but its minute size naturally renders it very liable to escape notice. It occurs beneath damp vegetable refuse in wet spots of rather low and intermediate altitudes, especially amongst detritus deposited on the moist rocks by the small trickling streams. In such situations I met with it (chiefly by sifting) at Tarrafal, and in the Ribeira Fria, of S. Antão; and subsequently, in great profusion, in the Orgãos ravine, in the interior of S. Iago—in which latter island it was also taken (at Sæ Catharina) by Mr. Gray.

I am informed by the Rev. A. Matthews that it is unquestionably conspecific with the invisibilis of Nietner; and, this being the case, it would appear to be an insect of a very wide geographical range—
PHALACRIDÆ.  55

that species having been recorded hitherto only from central North America and Ceylon!

Fam. 11. PHALACRIDÆ.

Genus 44. PHALACRUS.

Paykull, Fina Suec. iii. 438 (1800).

63. Phalacrus aterrimus, n. sp.

P. rotundato-ovalis, convexus, ater, nitidissimus; capite minute leviter punctulato; prothorace fere impunctato (oculo fortissime armato punctulis subtilissimis parce irrorato); elytris levissime punctulato-substriatis, interstitiali obsolete subseriatim punctulatis; antennis testaceo-piceis, clava vix obscuriore (artu longissimo ovali, nec longissimo); pedibus rufo-piceis, tarsis latiusculis et praeter apicem testaceoribus.—Long. corp. lin. 1—1 ½.

Habitat S. Vicente, S. Iago, et Brava; in intermediis editoribusque late diffusus.

Obs.—P. coruscus primâ facie simillimus, sed differt antennis pedibusque plus rufo-piceis (nee nigris), illis sensim brevioribus articulo ultimo ovali, conspicue minus elongato, tarsis latioribus, prothorace fere impunctato (oculo fortissime armato punctulis etiam subtilioribus ac multo magis remotis irrorato), elytris (ut in P. grosso) magis evidentor (sed tamen levissime) punctulato-substriatis, punctulis in interstitiis remotioribus, magis distinctis, ac subseriatim dispositis.

The present Phalacrus bears such a strong primâ facie resemblance to the common P. coruscus of more northern latitudes that, until carefullv examined, I had regarded it as identical with that species; and there seemed a still further probability that this would be the case, from the fact that the P. coruscus is universal throughout the Canarian archipelago. In reality however it is nearer to the European P. grossus, with which indeed in the peculiarity of its elytral sculpture it is almost coincident; nevertheless it differs both from that insect and the coruscus in its limbs being invariably of a more or less pale rufo-piceous, or even piceo-testaceous, hue (instead of black), in its feet being broader, and in its antennae being perceptibly shorter, with their apical joint conspicuously less elongated. Its prothorax, too, is nearly impunctate—the highest magnifying-power bringing to light only some very diminutive punctules, which are even smaller still, and considerably more remote, than those of the P. grossus and coruscus.

The P. aterrimus does not appear to be common; but it is nevertheless
widely distributed over the Cape Verde islands, where it occurs at intermediate and lofty altitudes. I captured it on the summit of Monte Verde, in S. Vicente; and it was taken by Mr. Gray and myself at San Domingos and Sª Catharina, in the interior of S. Iago, as well as on the mountains above the Povoação in Brava. From S. Vicente it has also been communicated by Mr. Miller.

Genus 45. OLIBRUS.
Erichson, Nat. der Ins. Deutsch. iii. 113 (1845).

64. Olibrus gemma, n. sp.

O. ovalis, convexus, piceo-niger, obsolete subæneo tinctus, nitidissimus; capite prothoraceque minute, leviter et parce punctulatis, hoc versus angulos posticos sensim paulo dilutior; elytris leviter punctulato-substriatis, interstitiis minutissime subirregulariter punctulatis; antennis pedibusque testaceis.—Long. corp. lin. ½.

Habitat S. Antão, et S. Vicente; in intermedium editoribusque rarissimus.

A small Olibrus which may be recognized by its regularly oval outline, its almost concolorous, piceous-black (though slightly brassy) hue, and its exceedingly fine and light sculpture—its elytral striae being very faint and minutely punctulated, while the punctules of its interstices are still more diminutive, and irregularly dispersed (having but little, if indeed any, tendency to arrange themselves in longitudinal rows). It appears to be very rare, and confined to intermediate and lofty altitudes. A single example of it was beaten by Mr. Gray from a bush of Artemisia gorgonum, in the Ribeira Fria of S. Antão; and it was likewise captured by him, as well as by myself, on the summit of Monte Verde in S. Vicente.

65. Olibrus notatus, n. sp.

O. oblongo-ovalis, convexus, rufo-piceus, nitidissimus; capite prothoraceque minutissime, levissime et sat parce punctulatis; elytris lateraliter subcompressis, apice gradatim rufescensioribus, seriatis (vix substriatis) punctulatis (punctulis sat magnis sed levibus, subremotis, paulo subasperatis, et oculo fortissime armato fere quasi tripartitis), interstitiis impunctatis; antennis pedibusque testaceis, illarum clavâ vix minus abruptâ.—Long. corp. lin. ½.

Habitat S. Iago; in intermedium rarissimus.

The rufo-piceous, or almost chestnut, hue of this very small Olibrus, in conjunction with its somewhat laterally-compressed, slightly-ob-
long, outline, and the peculiar sculpture of its elytra (which have their punctures, although exceedingly shallow, comparatively large and remote, and arranged in longitudinal rows, whilst the interstices seem to be quite impunctate) will readily distinguish it*. It is apparently as scarce as, or perhaps scarcer than, the last species—the only examples which I have yet seen (three in number) having been captured by myself in the interior of S. Iago, namely in the Ribeira dos Orgãos.

Genus 46. LITHOCRUS.

Erichson, Nat. der Ins. Deutsch. iii. 108 (1845).

66. Lithocrus pallidus, n. sp.

L. ovalis, convexus, rufo-testaceus, nitidus; capite levissime obsol-letissime punctulato; prothorace elytrisque fere impunctatis (oculo fortissime armato subtilissime parce punctulatis), his leviter stria- tatis, interstitiis lineolis subtilibus remotis transversim subtetriculo-losis; antennis (subrobustis), palpis pedibusque testaceis.—Long. corp. lin. 1—1 4.

"Habitat S. Iago; sub cortice Fici eujusdam laxo arido in intermedii inferioribusque deprehensus.

It is just possible that this pale Phalacrid may be Fabricius’s Spharidi-um testaceum, on which Erichson subsequently founded the genus Lithocrus; but as the original "diagnosis" is comprised in three words ("testaceum, capite obscuriore"), it is of course utterly impossible, without examining his type, even to conjecture what it is that he meant to characterize. Erichson, however, must at any rate have inspected it, for otherwise he could not have established a new group for its reception; and it would appear that the Fabrician species, whatsoever it may be, is from the West-Indian island of St. Thomas. Nevertheless the genus does not seem to be an exclusively American one, for the few known representatives of it are from southern countries far removed from each other—such as the West Indies, Madagascar, and Van Diemen’s Land; so that the Cape Verde archipelago is not an improbable region for the discovery of an additional exponent. The Lithocri, however, would appear merely to be Olibri which have their feet slenderer than is the case in the normal species, and

* The elytral punctures of the O. notatus are very peculiar—appearing, when viewed beneath the microscope, to be not only somewhat obliquely impinged (or, as it were, subasperate on their upper edge), but likewise composed, each of them, of three converging (or, perhaps, rather, anteriorly-confluent) infinitesimal lines, or impressions, as in the genera Glososoma, Moronillus, and Microstagetus, of the Corylophidae.
with the first joint of the hinder pair greatly lengthened (and consequently very much longer than the second one)—instead of being abbreviated (as in Olibrus proper), and considerably shorter than the next. Although these characters might well be regarded, at first sight, as insufficient for generic purposes, yet, I may add, they are so pronounced and conspicuous that I am inclined to think they are really and truly significant ones.

The L. pallidus was taken abundantly by Mr. Gray and myself in S. Iago, near the Villa da Praia and in the Ribeira dos Orgãos—in both instances beneath the dry and loosened bark of a large native fig-tree, which had been recently felled*. 

Fam. 12. NITIDULIDÆ.

Genus 47. CARPOPILUS.

(Leach) Steph., Ill. Brit. Ent. iii. 50 (1830).

67. Carpophilus hemipterus.

Carpophilus hemipterus, Woll., Ins. Mad. 117 (1854).

Habitat S. Iago; sub cortice arboris enjusdam laxo arido emortuo, juxta Villa da Praia, lectus.

The wide-spread C. hemipterus, which is so eminently liable to become introduced into most civilized countries through the medium of commerce, seems to have established itself in the low and inhabited parts of the Cape Verde archipelago, as it has done in the Madeiras and Canaries. At any rate it was taken by Mr. Gray and myself, close to the Villa da Praia, in S. Iago—under the dry bark of a felled tree (I believe, a Fig) in the Palm-grove adjoining the eastern outskirts of the town.

68. Carpophilus mutilatus.

C. subcylindrico-oblongus, rufo-ferrugineus (capite prothoraceque in disco, elytris postice abdomineque plus minus obscure saturatis),

* I possess an insect, taken by the late Mr. Melly in Egypt, which bears a most striking prima facie resemblance (in size, outline, and colour) to the L. pallidus; but its elytral striae are obsolete, and its antennal club is distinctly four-jointed. Although I have not examined it structurally, I nevertheless believe that it is either a Lithocerus or an Olibrus in which the eighth articulation of the antennæ is unusually enlarged.
parce sericeo pubescens, profunde et crebre punctatus; prothorace subquadrato; elytris ad latera subparallelis.—Long. corp. lin. 1½—2.

Nitidula hemiptera, Fab. [ne Licin., 1767], Ent. Syst. i. 261 (1792). Carpophilus mutilatus (Hoffm.), Erich., in Germ. Zeitsch. iv. 258 (1843).

Habitat S. Antão, et S. Iago; vel in mercatorum repositoriis vel in frugibus emortuis putridis, præsertim Citri aurantii, Linn., hinc inde abundans.

I have given a short diagnosis of this Carpophilus and the following one, in order to call attention to the few points in which they differ from each other; for occasional darkish examples of the former bear so strong a primâ facie resemblance to unnaturally large and palish ones of the latter as to render it, at first sight, a little doubtful whether they are specifically distinct. I believe, however, such to be the case; for, although both species are eminently variable in size and hue, I have never, myself, found much practical difficulty in separating them. On the average, the C. mutilatus may be said to be a larger and much paler insect than its ally, and to have its elytra relatively longer, a trifle less convex, and just appreciably straighter, or more parallel, at the sides (being rather less drawn-in at their apex). Like the C. dimidiatus it is a wide-spread species—being liable to introduction, more or less, through the medium of commerce, into most civilized countries. In the Cape Verde archipelago it has completely established itself (as is the case with it also in Madeira), where we may expect that it will be found, sooner or later, to be universal. Hitherto, however, it has been met with only in S. Antão and S. Iago—namely, in the former by Dr. H. Dohrn, Mr. Gray, and myself, and by Mr. Gray and myself in the latter. It occurs in various situations, not only in the towns (where it is found amongst the dried Physic-nuts, Indian corn, and other fruits), but likewise at intermediate altitudes in the open country—where it seems more particularly attached to the decayed Oranges which are left to rot beneath the trees.

69. Carpophilus dimidiatus.

C. plerumque paulo minor, subangustior, pubescentior et obscurior (sc. plus minus fusco-niger, elytris versus humeros atque in disco saepius oblique dilutioribus); elytris sensim brevioribus ac magis convexis, ad latera paulo minus parallelis (i.e. ad apicem sensim
magis incurvis); abdomen vix longiore, vix acutiore.—Long. corp. lin. 1 4\frac{1}{2}.  

Nitidula dimidiata, _Fab., Ent. Syst._ i. 261 (1792).  
Carpophilus dimidiatus, _Erich., in Germ. Zeitsch._ iv. 259 (1843).  
— auropilosus, _Woll., Ins. Mad._ 117 (1854).  
—— Id., _Cat. Mad._ Col. 38 (1857).  
—— Id., _Cat. Can._ Col. 111 (1864).  
—— dimidiatus, _Id., Col. Atl._ 107 (1865).

_Habitat_ S. Antão, S. Vicente, S. Iago, Fogo, et Brava; in locis plus minus similibus ac præcedens.

The nearly cosmopolitan _C. dimidiatus_ (which has established itself in the Madeiran and Canarian Groups) occurs in similar places, at the Cape Verdes, as the last species—with which indeed it is often found in company. However I think perhaps that, on the whole, it prefers the lowest and hottest districts—in which it may often be met with, not only amongst dried fruits and nuts, but even under the droppings of cattle; whereas the _mutilatus_ (though almost equally plastic in its habits) is more particularly partial to the rotten Oranges which frequently strew the ground beneath the large trees in certain cultivated spots of intermediate elevations. I have taken it in S. Antão, S. Vicente, S. Iago, Fogo, and Brava; in the second and third of which it was met with likewise by Mr. Gray.

As already implied, the _C. dimidiatus_ is on the average smaller and darker than the _mutilatus_, as also just appreciably narrower, and with its abdomen somewhat more produced (or lengthened out) behind; its pubescence is perhaps a trifle coarser, or at any rate more apparent; and its elytra are relatively a little shorter, more convex, and, if anything, less parallel at the sides (being sensibly drawn- or nipped-in at their apex).

Fam. 13. _MONOTOMIDÆ._

_Genus_ 48. **MONOTOMA.**

Herbst, _Naturyst._ v. (1793).

70. _Monotoma spinicollis._

—— spinicola, _Woll., Cat. Mad._ Col. 67 (1857).  
—— spinicollis, _Id., Cat. Can._ Col. 123 (1864).
—— Id., _Col. Atl._ 118 (1865).

_Habitat_ S. Iago; sub quisquiliis in intermediis exemplaria duo ecepi.

Of the European _M. spinicollis_ (which occurs in the Madeiran and
Canarian Groups) I have seen hitherto but two examples from these islands. They were both of them taken by myself, beneath decaying vegetable refuse, in the interior of S. Iago—namely, at San Domingos, and close to the Boa Entrada of Sta Catharina.

**Fam. 14. ENDOPHLEIDÆ.**

*Genus 49. SYNCHYTA.*


**71. Synchytia impressa,** n. sp.

*S. parallelo-oblonga,* angustula, vel nigro-picea vel fusco-nigra, setis brevissimis squamuliformibus crassus subdementis cinereis (in elytris seriatim dispositis) vestita; capite prothoracique dense et rugose punctatis (punctis sat magnis et prima facie tuberculæ simulatibus), hæc transverso-subquadrato, angulis posticis subrectis, anticus valde porrectis, ad latera (anguste subferruginea) æqualiter vix rotundato, mox pone marginem anticum linea profundâ argutâ transversim impresso; elytræ punctato- (vix subrenato-) striatis, in interstitiis seriatim punctatis, utrinque ad basin intra humeros sæpius obsolete rufescuntioribus; antennis pedibusque brevibus, rufo- vel piceo-testaceis.—Long. corp. lin. 1–1 ½

*Habitat* S. Iago; sub cortice *Fici* cujusdam arido laxo in intermediis cepiose reperta.

The rather narrow and parallel-oblong outline, dull brownish-black hue, abbreviated rufo-testaceus limbs, and rough, dense sculpture of this insect (the surface of which is beset with short and thick cine- reous scale-like setæ, which on the elytral interstices are arranged in longitudinal rows), together with the deep transverse line with which its squarish prothorax is branded immediately behind the front edge, will suffice to distinguish it. After dissecting it with great care, I feel satisfied that it is a true *Synchytia*—its 10-articulated antennæ (with their extremely solid, though rather compressed, one-jointed club), approximated hinder coxae, largely developed wings, and tetr- merous feet, no less than the exact structure of its apically-entire mandibles, its rounded upper lip, its triangular but anteriorly truncate and subemarginated mentum, its transverse, corneous ligula, and the rather long but somewhat fusiform-ovate last joint of its maxillary and labial palpi, being all in accordance with the type of that genus.

The *S. impressa* was taken, in profusion, by myself, in the interior of S. Iago—under the dry and loosened bark of a gigantic native fig-
tree, which had been felled, in the Ribeira dos Orgãos. It is rather smaller, and more oval, than the *S. juglandis*; its sculpture is appreciably finer, its prothorax is a little less straightened and much less coarsely crenated, at the sides, and with the angles less rounded-off (the anterior ones being exceedingly porrect, and the basal ones right angles), and its limbs are paler.

72. *Synchyla crenicollis*, n. sp.

*S. subparallelolo-elongata*, angustula, rufo-ferruginea, setis brevibus squamuliformibus crassis subdemissis (in elytris seriatim dispositis) parce vestita; capite paulo obscuriore prothoraceque dense et rugose punctatis (punctis magnis et primâ facie tuberculâ simulântibus), hoc subquadrato, angulis èpsis posticis rectis, anticis porrectis, ad latera (grosse crenata) mox ante angulos posticos subito excavato, anterius vix rotundato, mox pone marginem anticum lineâ fere (in medio omnino) obsoletà impresso; elytris argute crenato-striatis, in interstitiis remote seriatim punctatis.—Long. corp. lin. 1\(\frac{1}{2}\).

*Habitat* S. Iago; sub cortice laxo arido juxta oppidulum Villa da Praia specimen unicum collegit Dom. Gray.

*Obs.*—Species præcedente paulo major ac pallidior (sed an *Semper* rufo-ferruginea?) setisque sensim minus brevibus remotioribusque irrata, prothorace paulo longiore (minus transverso), utrinque ad angulos posticos (rectos) subito minute excavato, per latera grosse crenato, nec non lineâ antich transversâ fere (omnino in medio) obsoletà, elytris argutis crenato-striatis et in interstitiis parceius seriatim punctatis.

The single specimen from which the above diagnosis has been drawn was captured by Mr. Gray in S. Iago—beneath the bark of a felled tree, in the Palm-grove adjoining the eastern outskirts of the Villa da Praia. Until I had examined it carefully I concluded that it was but a large and ferruginous variety of the *S. impressa*, which I subsequently found in great profusion (under the bark of a native fig) at a higher elevation in the interior of the same island; but a critical inspection brings to light an abundance of distinctive characters which separate it entirely from that species. Thus, it is not only larger and paler than the *impressa*, and with its minute scale-like setæ more remote and a trifle less abbreviated, but its prothorax is exceedingly different—being longer (or less transverse), with the line behind the anterior margin nearly obsolete, the anterior angles less porrect, and (above all) with the sides coarsely crenated and *suddenly scooped-out*, or narrowed, immediately in front of the basal angles, which are
themselves consequently right angles. Its elytral sculpture, also, is not quite the same as that of the *impressa*—the striae being more sharply defined and crenated, and the interstitial punctures (which are, in like manner, arranged in longitudinal rows) more distant *inter se*, or remote.

**Genus 50. DITOMA.**


In their immaculate, or almost-concolorous, surfaces, the two narrow and linear insects described below recede, I believe, from the few species of *Ditoma* hitherto known; nevertheless, after a careful examination of their several parts, I cannot detect a single structural character in which they differ from the members of that genus—the proportions of their 11-jointed antennæ (with the biarticulated club), their apically bifid mandibles, their faintly emarginated mentum and ligula (the former of which has its sides greatly rounded), as well as their maxillary and labial palpi and upper lip, being all on the exact *Ditoma*-type*. Their dense, asperated sculpture and largely-developed costa (especially of the prothorax) are also highly suggestive of *Ditoma*, with which they likewise agree in the relative length of their abdominal segments. *Inter se* they present a slight structural dissimilarity in the development of their tibiae—which are sensibly robust in the *D. lyctiformis* than in the *linearis*, and have also (in the former) their external apical angle more enlarged and prominent, and more evidently surmounted with two minute spinules. I have taken advantage of this fact to throw them into different Sections; but I can see nothing about it of sufficient importance to warrant their generic separation.

§ 1. *Tibia apicem versus sensim dilatate, angulo externo paulo exstante et spinulis duabus minutissimis armato. Abdominis segmentum 2° in medio impressione arcuata notatum.*

**73. Ditoma lyctiformis, n. sp.**

*D. subparallelo-linearis, angusta, rufo-ferruginea, subopaca, setulis (aut ferre pilulis) minutis brevibus demissis subcinereis (in elytris seriātīm dispositis) parcissime subsericata; capite prothoracaeque piceo- vel nigro-ferrugineis, dense tuberculato-asperatis,clypeo

* The highly-finished engraving, given by Sturm, of the oral organs of *Ditoma* is exceedingly inaccurate; for the mandibles are represented as *simple* at the apex, the mentum is drawn without even a tendency to be anteriorly emarginate, the anteclaval joint of the antennae is much too large, and the three small articulations of the hinder feet are made to *decrease*, instead of *increase*, in length. Duval has recorded them more correctly.
ferrugineo et subsemicirculari, hòc elongato-subquadrato, postice subangustiore, angulis antecis porrectis, utrinque costis duabus flexnosis postice incurvis aliusque duabus obscurioribus brevibus subrectis anterioribus mediis instructo; elytris rufo-ferrugineis, erebre punctato-striatis, interstittis alternis costato-elevatis; antennis pedibusque breviuseulis, rufo-ferrugineis.—Long, corp. lin. 1¾—1½.

**Habitat** S. Iago; sub cortice Fici in intermediis atque etiam inferioribus occurrents.

I took a single specimen of this insect beneath the bark of a felled fig-tree in the Palm-grove adjoining the eastern outskirts of the Villa da Praia, in S. Iago; and a few more were afterwards met with by myself and Mr. Gray at a higher elevation in the same island—likewise under the bark of a gigantic native Ficus, in the Ribeira dos Orgãos. Not to mention less important distinctions (which may be gathered from the above diagnosis), the *D. lyctiformis* may be known by its narrow, elongate outline, and bright rufo-ferruginous elytra, the head and prothorax being of a blackish or piceous brown, by the latter (which is slightly narrowed behind) being furnished with two flexuose ridges down either side (which are curved inwards at the base) and with the rudiments of two short central ones in front (adjoining the anterior edge), and by the alternate interstices of its densely punctate-striated elytra being greatly raised, or costate. In its general contour and hue it is somewhat suggestive of a small *Lycus*; and it is curious, therefore, that I should have captured it in company with a member (the *L. aquilis*, W.) of that genus.

§ II. *Tibia apicem versus minus evidenter dilatatæ, angulo externo magis truncato rotundato et vix spinulis armato. Abdominis segmenta (præsertim 3°m et 4°m) postice impressione rectâ subinterruptâ notata.*

74. **Ditoma linearis**, n. sp.

*D. parallelo-linearis*, angustula, nigro-ferruginea, opaca, setulis minutissimis brevissimis demissis subcinereis (in elytris seriatiim dispositis) parcisimme irrorata; capite prothoraceque dense et rugose tuberculato-asperatis, elypeo obscure ferrugineo et mox ante oclos paululum exstante, hòc quadrato, angulis antecis valde porrectis, utrinque costis duabus rectis antice incurvis aliusque duabus obscurioribus brevibus curvatis basalibus mediis instructo; elytris profunde et erebre punctato-striatis, interstittis alternis valde costato-elevatis, ad basin, præsertim intra humeros, sæpius obsolete subfuscenti-tinetis; antennis pedibusque breviuseulis, rufo-ferrugineis. —Long, corp. lin. 1¾.

**Habitat** S. Iago; sub cortice Fici una cum specie præcedente capta.
Two examples of this very distinct species were captured, by myself, in the interior of S. Iago (along with the *D. lyctiformis*, the *Synchyta impressa*, *Lithoceras pallidus*, *Arthrolips testudinalis*, &c.), under the bark of a gigantic *Ficus*, which had recently been felled, in the Ribeira dos Orgãos. It is larger, darker, rougher, and more thoroughly opake than the *D. lyctiformis*, its sides are also more strictly parallel (the prothorax being of exactly the same width throughout as the elytra, and with no tendency to be subattenuated posteriorly), and, although narrow, it is not so narrow as that species; its prothorax is relatively shorter and squarer, with the lateral ridges straighter, but bent inwards in front instead of behind, and with the two obscure, additional, abbreviated, central ones not only more curved but adjoining the basal (instead of the anterior) margin*. Its elytra, also, which are obsoletely flushed with a slight rufescent tinge about their base (particularly towards either shoulder), have their sculpture and costae still more developed.

Genus 51. **COSSYPHODES.**


75. Cossyphodes Wollastonii.

— —, *Woll.*, *Ins. Mgd.* 146, tab. iii. f. 3 (1854).
— —, *Id.*, *Cat. Mad.* Col. 49 (1857).
— —, *Id.*, *Cat. Can.* Col. 127 (1864).
— —, *Id.*, *Col. Atl.* 130 (1865).

*Habitat* S. Iago, et Brava; nidos formicarum (sc. *Ecoaphoria pusilla*, Heer) in intermediis editoribusque colens.

This curious and anomalous little beetle, which was detected by myself, in the nests of *Ecoaphoria pusilla*, at low elevations, in the Madeiran and Canarian Groups, is associated with the same Ant in the Cape Verde archipelago. I have taken it in the interior of S. Iago, and on the mountains above the Povoação in Brava. My S. Iago specimens are from S'ma Catharina, and from beneath the gigantic Poilão tree (*Eriodendron*), so famous for its almost fabulous dimensions, in the Ribeira dos Leitães Grandes. It occasionally runs with comparative velocity for an insect which has such short limbs—which, considering also that it is nearly blind, is rather remarkable.

* It will thus be seen that the prothoraces of the *D. lyctiformis* and *linearis* are, so far as their *costae* are concerned, the exact reverse of each other—those of the former being curved inwards behind, with the additional abbreviated pair placed in front; whilst those of the latter are curved inwards in front, with the short rudimentary ones placed behind.
Fam. 15. TROGOSITIDÆ.

Genus 52. TROGOSITA.

Olivier, Ent. ii. 19 [script. Trogosita] (1790).

76. Trogosita mauritanica.

Tenebrio mauritanicus, Linn., Syst. Nat. ii. 674 (1767).
Trogosita mauritanica, Woll., Ins. Mad. 154 (1854).
— —, Id., Cat. Mad. Col. 50 (1857).
— —, Id., Col. Atl. 116 (1865).

Habitat S. Iago, et Fogo; certe ex alienis introducta.

Two examples of this widely spread, and almost cosmopolitan, insect were taken by Mr. Gray in S. Iago—one of them at the Villa da Praia, and the other at San Domingos; and a third has lately been obtained by the Barão do Castello de Paiva, from Fogo. Being so eminently liable to introduction, into most civilized countries, through the medium of commerce, we may expect that it will be found to be pretty general when searched for in the warehouses and towns. I need scarcely add, however, that it has no real connexion with the Cape Verde fauna—though, since naturalized species can hardly be excluded from our Catalogue, and the T. mauritanica was admitted into that of the Madeiran and Canarian Groups, I cannot well refuse it a place in the present volume.

Fam. 16. CUCUJIDÆ.

Genus 53. LÆMOPHLOŒUS.

(Dejean) Erich., Nat. der Ins. Deutsch. iii. 315 (1845).

Although, by the acknowledged diagnosis, Læmophloœus has many of its generic characters greatly modified according to the specific peculiarity of the several members which compose it, it nevertheless appears to me to include two types of form which are so dissimilar in their extremes that they ought at least to be recorded under separate Sections. The former of these (in which the species are usually a little larger and of more lignivorous habits, occurring beneath the bark of forest-trees in the open country) has the male antennæ extremely long, the forehead sharply separated from the (anteriorly emarginate) elypeus by a deeply-impressed curved line, the scutellum conspicuous and triangular, and the elytra truncated at their apex so as to leave
the pygidium exposed; whilst the latter (the representatives of which are for the most part small, and more frequently attach themselves to shrubs and plants, occurring often even amongst grain and other articles of commerce) has the antennæ of its male sex less elongate, the forehead subconfluent with the (anteriorly truncated) clypeus, the scutellum short and transverse, and the elytra rounded behind and covering the whole (or very nearly the whole) of the abdomen. It will be seen, on reference, that both of these generic types are represented in the Cape Verde archipelago*. 


77. Lamophlebus politissimus, n. sp.

L. sublinearis, angustulus, depressus, rufo-ferrugineus, nitidissimus, fere calvus (in elytris solis oculo fortissime armato minutissime et parce pubescens); capite prothoraceque (lincâ laterali instructis) parce punctulatis, illo in medio canaliculato oculis maguis prominentibus, hoc subquadrate postice vix angustiore, angulis ipissimis posticis exstantibus, utrineque pone medium obsolete fovoloato; elytris pallidioribus (sepius saturate flavo-testaceis, circa scutellum obscurioribus), leviter punctulato-striatis.—Long. corp. lin. 1–1 ½. 

Habitat S. Iago, et Brava; sub cortice arborum, præsertim Fici sed interdum Jatrophae et cæt., præcipue in intermediis occurrunt.

Taken in profusion, by myself and Mr. Gray, in the interior of S. Iago—beneath the bark of a gigantic Ficus, which had recently been felled, in the Ribeira dos Orgãos, as well as (more sparingly), under fig-bark, near the Villa da Praia, in the same island; and we subsequently met with a few examples of it, beneath the bark of a Jatropha Curcas, near the Povoação, in Brava.

Apart from the structural characters (of elongated male antennæ, anteriorly emarginate forehead and clypeus, triangular scutellum, and apically-truncate clytra) which tend to remove it into a different Section from that species, the present Lamophlebus may be known from the following one by being a trifle broader and more depressed as well as exceedingly shining and glabrous, by its eyes being considerably larger, by its prothorax being relatively shorter and squarer, with the extreme basal angles more prominent, and with an impression on either

* The L. donacioides, of Madeira, and the granulatus, of Madeira and the Canaries, fall under the first of the above-mentioned Divisions; whilst the remaining species which have been found in those more northern Groups are members of the second.
side of the disk (behind the middle), and by its elytral striae being less deep, less defined, and punctulated (instead of simple).

§ II. Frons à elyopeo (antice recte truncato) vix divisa. Elytra apice integra. Scutellum breve, transversum. Antenna in utroque sexu magis aequales, nec in maribus longissimes.

78. Læmophleus clavicolliis.

L. linearis, angustus, rufo-ferrugineus, subopacus, (in capite prothoraceque sat grosse sed in elytris minute) pubescens; capite prothoraceque (lineâ laterali instructis) subconvexis, paulo densius punctulatis, illo vix canaliculato, pone oculos parvos (presertim in maribus) lato, hoc elongato postice angustiore, angulis posticis fere subrotundatis; elytris argute striatis, interstitiis alternis subconvexis.—Long. corp. lin. 1–1 ¼.

Læmophleus clavicollis et vermiculatus, Woll., Ins. Mad. 161, 163 (1854).

—, —, Id., Cat. Mad. Col. 52, 53 (1857).

—, —, Id., in Trans. Ent. Soc. Lond. i. 150 (1862).


—, —, Id., Col. Atl. 132 (1865).

Habitat S. Antão, S. Vicente, S. Iago, et Fogo; præcipue sub cortice Euphorbiarum, hinc inde vulgaris.

The L. clavicolliis, which is almost universal in the Madeiran and quite so in the Canarian Group, will doubtless be found (when searched for in the proper localities) to be generally distributed over these islands. It is more particularly attached (though not exclusively so) to the dead stems and branches of the Euphorbias, beneath the bark and outer fibre of which it occasionally abounds. In such situations I met with it at Tabouga in S. Antão, on the mountains in S. Vicente (where it was found likewise by Mr. Gray), above Sª Catharina in the interior of S. Iago, and at the Monte Nucho in Fogo.

I have given a diagnosis of this species, in order to call attention to the points in which it differs from the last one, though its Sectional characters alone (of shorter male antennæ, smaller and more transverse scutellum, apically-entire elytra, and the fact of its forehead not being separated by a deep curved line from the elypenus, which latter is not emarginate anteriorly) would suffice to distinguish it. Apart from these, however, it may easily be known by being still narrower and more linear, and nearly opaque; by its head and prothorax being convexer and densely pubescent (instead of glabrous), the former of which is relatively broader behind the eyes (which are themselves much smaller), whilst the latter is comparatively elongate, more at-
tenuated posteriorly, and with its basal angles more rounded-off; and by its elytra having their striae *simple*, but more sharply defined, and their alternate interstices slightly raised. I possess two examples, captured at a low elevation in S. Iago (immediately outside the Villa da Praia), in which the prothorax is a little squarer—the hinder angles being less sloped-off, and indeed almost right angles; but in other respects they seem to agree perfectly with the *clavicollis*; and I cannot think therefore that they represent more than a slight local state, or variety, of that species. I would, however, just record them as the "var. β. affinis".*

**Genus 54. SILVANUS.**


79. **Silvanus surinamensis.**

—— ——, *Id., Cat. Mad.* Col. 54 (1857).  
—— ——, *Id., Cat. Carn.* Col. 133 (1864).  
—— ——, *Id., Col. Atl.* 135 (1865).

*Habitat* S. Vicente; in mercatorum repository, *ex alienis certe introductus.*

Of this almost cosmopolitan *Silvanus* a single example was captured by Mr. Gray in S. Vicente—on the outer wall of Mr. Miller's storehouse in Porto Grande. It has of course nothing to do with the Cape Verde Coleoptera; nevertheless, since it will doubtless be found to have established itself generally about the granaries and towns, and since naturalized species can scarcely be omitted from any country's fauna, I have no choice but to include it in the present Catalogue. It is common in the Madeiran and Canarian Groups.

80. **Silvanus inarmatus**, n. sp.

*S. parallelo-elongatus*, angustus, ferrugineus, opacus, minute pubescens; capite prothoracique crebre punctato-rugulosis, illius oculis magnis, ad basin ipsissimam ductis, hoc elongato-quadrato postice vix angustiore, angulis posticis subrectis, anticus leviter productis,

* I may mention, in this place, that the European *Pediacus depressus* was captured, on several occasions, both by Mr. Gray and myself, on board his yacht, during our cruise amongst these islands. I feel satisfied however that it made its appearance from the stores which were brought from England, and that it had no connexion with the Cape Verde fauna; for we tried in vain to detect it amongst even the naturalized species which appear to have established themselves about the towns and warehouses, in different parts of the Group. Still, since it is at least possible that some of our examples may have found their way on board from the shore, I think it desirable just to notice the fact of their occurrence, even under circumstances thus suspicious.
ad latera (subrecta) minitissime crenulato, per discum obsolctissime subimmacuali; elytris crebre striato-punctatis, interstitiis alternis obsolete subelevatis.—Long corp lin. 1 1/8—1 1/2.

Habitat S. Iago; sub cortice Feci arido laxo in intermedio captus.

Obs.—S. unidentato, Europae, primae facie subsimilis sed certe distinctus; differit praeceps prothorace multo magis quadrato (omnino, sed præsertim postice, minus angustato), angulis antecis minus exstanter productis, postecis subrectis, necnon oculis majoribus, ad basin capitis ipsum ductis (i. e. à margine basali capitis denticiformi multo minus evidenter postice terminatis). S. bidentato discoit prothorace quadratiore, angulis postecis magis ampliatis rec-tioribus, antecis multo minus (nec in spinam elongatam) productis, ad latera minus sinuate, necnon per discum multo minus inaequali (fere integro), oculis paulo majoribus et ad basin capitis ipsissimam postice ductis.

Several examples of this Silvanus were taken by myself and Mr. Gray in the interior of S. Iago—beneath the loosened bark of a gigantic Ficus, which had recently been felled, in the Ribeira dos Orgãos. At first sight it much resembles the European S. unidentatus, though a closer inspection will show that it is in reality quite distinct from that species. Thus, apart from minor characteristics, its prothorax is squarer (being less narrowed posteriorly, and with the hinder angles more developed and nearly right angles), and has the anterior angles less produced, and the sides straighter (or less sinuate); and its eyes are considerably larger, reaching to the extreme base of the head, and are therefore much less evidently bounded behind by the minute projecting rim of the latter. From the Fabrician S. bidentatus (which occurs also in Madeira*) it recedes, inter alia, in its less foveolated, shorter, and more quadrato prothorax (which is less narrowed behind, with the anterior angles very much less produced, or spiniform, and the posterior ones more developed and nearly right angles, while the sides are much straighter, or less sinuate), and in its eyes being larger—extending more evidently (in front) to the insertion of the antennae, and (behind) to the extreme base of the head.

Fam. 17. CRYPTOPHAGIDÆ.

Genus 55. CRYPTOPHAGUS.


* In my Madeiran Catalogue, as well as in the "Col. Atlantidum," I referred the Madeiran Silvanus to the European S. unidentatus; but a recent, and more careful, examination has satisfied me that it should rather be identified with the Fabrician bidentatus.
81. Cryptophagus scanicus.

Dermestes scanicus, Linn., F pau Succ. 146 (1761).
Cryptophagus scanicus, Sturm, Deutsch. Fau, xvi. 82, tab. 315. f. A (1845).

— — Erich., Nat. der Ins. Deutsch. iii. 356 (1846).

Habitat S. Antão; à Dom. Gray, a.d. 1864, semel captus.

A single example of the common European C. scanicus is amongst the few Coleoptera which were taken by Mr. Gray in S. Antão, during the winter of 1864; and I am bound, therefore, to admit the species into the present Catalogue. At the same time I must state that I do so with some reluctance, because I feel that it is not impossible that Mr. Gray may perhaps have captured it on board his yacht, in which case it could have no real connexion with the Cape Verde fauna. But since the dentatus (which is equally European) seems to have established itself in the archipelago (doubtless naturalized, as in Madeira and the Canaries, from more northern countries), it is far from unlikely that the scanicus may also be found occasionally about the houses and stores.

The C. scanicus may be known from the dentatus by being relatively a little more shortened in outline, or less parallel; by its prothorax being more abbreviated, and less straightened at the sides (both before and behind the central denticle), and therefore with the basal angles more obtuse; by its elytra being usually more or less darkened, or suffused, except towards their base; and by its pubescence being somewhat denser, but at the same a trifle shorter and more decumbent.

82. Cryptophagus dentatus.

Kateretes dentatus, Hbst, Käf. v. 15, tab. 45. f. 6 (1793).
Cryptophagus dentatus, WolL, Cat. Mad. Col. 56 (1857).


Habitat S. Antão; forsan ex Europâ introductus.

Of this common European Cryptophagus, which is tolerably abundant in the Madeiran and Canarian archipelagos, I obtained a specimen in S. Antão; and another was met with by Mr. Gray, during March of the previous year, in the same island. It is clearly an introduced species, and one which has no real connexion with the Cape Verde fauna; nevertheless it will probably be found to have established itself—at any rate about the houses and towns, if not indeed (as is the case in the more northern Groups) in the open country likewise.
Genus 56. **LEUCOHIMATIUM.**
Rosenhauer, *Die Thiere Andalus.* 179 (1856).

83. *Leucohimantium elongatum.*

*L. fusco-ferrugineum,* grosse albido-pubescent; capite prothoraeeque sat parce punctatis, hoc subquadrato postice paulo angustiore, angulis anticis oblique incrassatis, ad latera minutissime crenulato, basi utrince fovealı obscurı punctiformı impresso; elytris subliter striato-punctatis, interstitiis uniseriatim punctulatis.—**Long. corp. lin. 1\(\frac{1}{2}\).**

*Paramecosoma elongata,* Sturm, *Deutsch. Fna,* xviii. 72 (1846).

*Leucohimantium angustum,* Rosenh., *loc. cit.* 179 (1856).


**Habitat** S. Antão, et S. Vicente; circa radices graminum, in aridis inferioribus locisque paululum elevatis, rarissimum.

The Mediterranean *L. elongatum,* which occurs very sparingly in the Madeiran and Canarian Groups, appears to be extremely scarce in the Cape Verde archipelago—where it is found in arid spots of a rather low elevation. I met with a single example of it at Tarrafal, in the south of S. Antão; and a few more were taken by Mr. Gray in S. Vicente—namely, around the roots of grass, on a calcareous piece of ground about two miles from Porto Granda, and below the house of the English Consul, Mr. Miller.

Genus 57. **PARAMECOSOMA.**
Curtis, *in Ent. Mag.* i. 186 (1833).

84. *Paramecosoma simplex.***


**Habitat** S. Antão; sub quisquiliis in inferioribus intermediiisque, rarior.

Of this testaceous *Paramecosoma,* which bears so strong a **prima fácie** resemblance to a small (and less pubescent) *Typha* or a pallid *Cryptophagus,* and which occurs both in the Madeiran and Canarian Groups, I met with several specimens in S. Antão—namely beneath the decaying stems and leaves of Sugar-canes, at a low elevation, at Tarrafal, as well as under rotten plants of the Indian corn, at a high altitude, towards the head of the Ribeira das Patas.
LATRIDIADÆ.

Fam. 18. LATRIDIADÆ.

Genus 58. HOLOPARAMECUS.

Curtis, in Ent. Mag. i. 186 (1833).

85. Holoparamecus bipartitus, n. sp.

_H._ angustus, rufo-testaceus, nitidus, (oculo fortissime armato) subtilissime et parissime pubescens; capite sat magno; prothorace subcordato (antice lato rotundato, postice valde constricto, angulis posticis arugute rectis), basi in medio late et grosse transversim bituberulo; elytris subellipticis, singulis stria suturali rectâ impressis; antennis (11-articulatis) pedibusque vix pallidioribus.—Long. corp. lin. vix $\frac{3}{2}$.

_Habitat_ S. Vicente, et S. Iago; sub quisquiliis in humidis, necnon etiam in formicarum nidis, parissime occurrens.

_Obs._—Species _H._ caularum Europeo antennis 11-articulatis congruens, at sensim minor est, atque angustior, prothorace etiam subtilius punctulato (punctulis nisi oculo fortissime armato ægre observaudis), postice magis angustato (costis abbreviatis basalibus distinctioribus et cum margine basali angulum omnino arguteque rectum, nec obtusiusculum, efficientibus), parte centrali posticæ elevatâ paulo angustiori et in medio linea bisectâ (nec integrâ), quasi in tubercula dua divisis, necnon eplytrorum linea suturali ad basin ipsissimam haud in lineam biiundulatam basalem coeunte.

This extremely minute insect appears to be truly indigenous in the Cape Verde archipelago, but it is nevertheless extremely rare—occurring beneath damp vegetable refuse, and sometimes even in company with Ants. I have captured it (by sifting) at Madeiralzinho, in S. Vicente; as well as near the Villa da Praia, in the Ribeira dos Orgãos, the Ribeira dos Leitães Grandes, and at Sª Catharina, in S. Iago. My example from the Leitães Grandes ravine was taken (along with _Cossypodes_ Wollastonii) out of a nest of _Ecophthora pusilla_, beneath the gigantic Poilão-tree (_Eriodendron_) for which that spot is so justly celebrated.

The _H._ bipartitus is closely allied to the European _H._ caularum, with which it agrees in having eleven joints to its antennæ; but it is altogether a little smaller and narrower; its prothorax is more constricted behind, with the short basal costa (on either side) rather more developed and forming a complete and sharply-defined right angle (instead of a slightly obtuse one) with the posterior margin, and with the embossed central portion both narrower and divided into two parts by a distinct medial line; and its elytra want the minute undulating line into which the sutural stria of that species merges at its extreme
base. The punctation, also, of its prothorax is still more minute—being scarcely traceable even beneath a high power of the microscope. In some respects it is perhaps still nearer to the *H. niger* (found in the south of Europe, and at the Madeiras and Canaries); but it is a little smaller still, as well as paler, and narrower; its prothorax is especially more narrowed, and the constricted portion at the base is relatively a trifle longer and bounded on either side with a thicker costa; its elytra are less rounded outwards before the middle, and have their sutural stria less deeply impressed; and, when viewed beneath the microscope, it is appreciably more shining (or less alutaceous), and its punctation and pubescence are even still more minute—the surface being almost glabrous.

**Genus 59. CORTICARIA.**


**86. Corticaria serrata.**

*Dermestes serratus, Payk., Fna Suec. i. 300* (1798).  
*Corticaria rotulicollis, Woll., Ins. Mad. 184* (1854).  
— — —, *Id., Cat. Mad. Col. 64* (1857).  
— — —, *Id., Col. Atl. 150* (1865).

*Habita* S. Antao; à Dom. Gray prope Tarrafal semel deprehensa.

The common European *C. serrata* (which is locally abundant in the Madeiran and Canarian Groups) appears to occur at the Cape Verdes, where perhaps it may have been introduced from more northern latitudes. I did not myself meet with it in those islands; but a single example was captured by Mr. Gray, from beneath refuse, about a mile up the ravine at Tarrafal, in the south of S. Antão. We may be pretty sure therefore that, when searched for in the proper localities, it will be found to be more generally distributed over the archipelago.

**87. Corticaria immatura, n. sp.**

*C. saturate testacea, subnitida, vel sat longe vel brevius subeineceo (in elytris seriatim) pubescens; capite prothoraceque profunde punctatis, hoc transversim subcordato-quadrato, ad latera ante medium subangulatim rotundato, postice obsolete transversim impresso; elytris leviter substriato-punctatis, utrinque ad basin callo húmerali obscolo instructis.—Long. corp. lin. 3/4.*

*Habita* S. Antão, S. Vicente, et S. Iago; sub quisquiliis in intermedium editaribusque, late diffusa.

The totally pallid hue and rather more pubescent surface of this
little *Corticaria*, the prothorax of which is somewhat small and narrow, will at once distinguish it. It occurs beneath refuse at intermediate and lofty altitudes, and is widely spread over the archipelago, where we may expect that it will ultimately be found to be universal. It was taken by Mr. Gray and myself in most of the central ravines of S. Antão (such as the Ribeira Fria, the Ribeira das Patas, and the Ribeira da Babosa); by myself at Madeiralzinho, and on the summit of Monte Verde, in S. Vicente; and by Mr. Gray and myself at San Domingos and Sª Catharina, in the interior of S. Iago. The examples from S. Antão are, on the average, a trifle more pubescent than those from S. Vicente and S. Iago.

88. *Corticaria bicolor*, n. sp.

*C. praecedentem simulans, sed fere calva (oeulo fortissime armato pube subtilissimâ brevissimâ parcissimâ irrorata), capite prothoraceque vix parcius punctatis neeon plus minus lute rufo-ferrugineis (radius obscurs), hoc submajore, elytris nigrescentibus.—Long. corp. lin. 3 ¼.*

*Habitat* Fogo, et Brava; super folia plantarum necon sub quisquiliis, in intermediis editioribusque degens.

In general outline and sculpture the present *Corticaria* does not differ materially from the preceding one, except that its prothorax is perhaps just perceptibly broader and less closely punctured. It is, however, less pubescent (appearing nearly free from pile except under a high magnifying-power), and its colour is totally different—the head and prothorax being usually bright rufo-ferruginous (sometimes almost red), whilst the elytra (when mature) are nearly black. I observed it only in the southern portion of the archipelago, where it occurs at intermediate and lofty altitudes—having brushed it, rather abundantly, from a gigantic *Echium*, at the Monte Nucho, in Fogo (where it was found afterwards, though more sparingly, by Mr. Gray); and I subsequently met with two examples of it on the mountains above the Povoação, in Brava.

89. *Corticaria oblitterata*, n. sp.

*C. nitida, convexa, calva (oeulo fortissime armato vix pube irrorata); capite prothoraceque lute rufo-ferrugineis, sat profunde punctatis, hoc fere ut in specie praecedente sed postice nullo modo transversim impresso; elytris pieco-ferrugineis, elipticis, subventricosis, levissime seriatim (vix substriatim) punctatis, callo humerali obsolete; antennispedibusque rufo-testaceis.—Long. corp. lin. 3 ¼.*

*Habitat* S. Nicolão; à Dom. Gray in intermediis semel reperta.
The single example from which the above diagnosis has been compiled was taken by Mr. Gray, during February 1864, at a rather high elevation, in S. Nicolão. It is a trifle larger than the two preceding species; and it is also more shining, more lightly sculptured, and quite free (except under a very high magnifying-power) from every trace of pubescence; its prothorax is totally unimpressed behind; and its elytra are more convex and ventricose, without any appearance of a subhumeral callus, and of a somewhat piceo-ferruginous hue. Its head and prothorax seem to be of a clear rufo-ferruginous, as in the case of the *C. bicolor*; but I have no means of knowing whether the type before me is perfectly matured.

Genus 60. **LATRIDIUS**.
Herbst, *Käf.* v. 8 (1793).

90. *Latridius minutus*.

— — —, *Id.*, *Cat. Mad.* Col. 65 (1857).
Latridius — —, *Id.*, *Cat. Can.* Col. 151 (1861).
— — —, *Id.*, *Col. Atl.* 152 (1865).

*Habitat* S. Antão; an ex Europā introductus?

Two examples of this wide-spread and common European *Latridius* (which has established itself in the Madeiran and Canarian Groups) were taken by Mr. Gray, during the spring of 1864, in S. Antão; but I imagine that the species is merely a naturalized one in these islands. We may expect, however, to meet with it about the houses and towns.

Genus 61. **METOPHTHALMUS**.

91. *Metophtalmus creteicollis*, n. sp.

*M. elongato-ovatus*, latcrivus ipsissimis omnibus crenatis, in capite prothoraceque rufo-ferrugiueus sed in elytris plus minus nigro-piceus vel pieco-niger; capite porrecto, triangulari-subrostrato, in fronte nodis bimus elongatis costiformibus instructo, utrinque argute costato; prothorace transverso, utrinque late subconcavo-explanato, pone medium transversim impresso, in dorso convexo sed in parte mediana longitudinaliter argute concavo; elytris grosse et crebre striato-punctatis (punctis magnis), sutura interstitiisque alternis costato-elevatis; antennis pedibusque rufo-testaceis.

*Obs.*—Subitus necnon in prothorace (interdum etiam circa hume-
Habitat S. Antão, et S. Vicente; inter quisquilias, sæpius parum aridas, in intermediis degens.

This little *Metophthalmus* occurs amongst rather dry (and, often, mouldy) vegetable refuse, at intermediate altitudes, in the Cape Verde archipelago, where it is locally far from uncommon. I have taken it (by sifting) in the Ribeira Fria, the Ribeira da Babosa, &c. in S. Antão, and at Madeiralzinho in S. Vicente. In S. Antão it was met with likewise (namely at Tabouga) by Mr. Gray. It is so closely allied to the Madeiran *M. asperatus* that I cannot feel absolutely certain that it is more than a permanent geographical state of that species. It differs from it, merely, in being smaller, and in having its elytra a little more oval (or somewhat less straightened at the sides), with their alternate interstices rather less distinctly costate. Its antennal club, also, when viewed beneath the microscope, will be seen to be just perceptibly shorter and more abrupt—the basal joint being a trifle wider and more pectuliform, and the terminal one, if anything, perhaps, a little rounder; and its prothorax is usually more densely covered with snowy-white, chalk-like scales.

**Fam. 19. MYCETOPHAGIDÆ.**


92. *Myrmechixenus vaporariorum.*

*M. pallide rufo-ferrugineus, subnitidus, fulvo-cinereo pubescens, ubique dense et sat fortiter punctatus; prothorace transverso-subquadrate postice vix angustiore, angulis posticis obtusis sed parum argute determinatis; elytris vix pallidioribus, sæpius circa scutellum obsolete obscuratis, postice paulo truncatis, pygidium nigrum vix tegentibus.—Long. corp. lin. 4/3.*

*Myrmechixenus vaporariorum, Guér., Ann. de la Soc. Ent. de France, i. 70, pl. 2. no 1. f. 1–5 (1843).

Habitat S. Iago, et Fogo; sub stercore bovino, in arenosis apricus inferioribus, juxta mare, degens.

Of this small and testaceous insect, which occurs sparingly (generally about hotbeds and melon-frames) in central and southern Europe, I met with a few examples close to the Villa da Praia in S.
Iago (in the Palm-grove adjoining the eastern outskirts of the town),
and subsequently with several more at an equally low elevation in
Fogo—namely, under the dung of cattle, on the burning sand imme-
diately behind the sea-beach, at the Porto da Luz. In this latter lo-
cality I might have captured it in considerable numbers, had I thought
it worth while to do so; but it was only by stirring-up the sand, and
watching both closely and patiently, that they were to be obtained.
The Cape Verde specimens seem to differ in no respect from the ordi-
nary ones of more northern latitudes.

Genus 63. **TYPHÆA**.

(Kirby) Steph., *Ill. Brit. Ent.* iii. 70 (1830).

93. *Typhæa fumata*.


*Habitat* S. Antão, S. Vicente, S. Iago, et Fogo; sub quisquiliis in in-
ferioribus intermediaisque, late sed haud copiose diffusa.

The common European *T. fumata*—which occurs likewise in the north
of Africa (I possess an Egyptian example), Madeira, and the Canaries,
and which is reported even from the United States—is widely spread
over the Cape Verde archipelago, where in all probability it will be
ascertained ultimately to be universal. It occurs, for the most part,
beneath vegetable refuse, at low and intermediate altitudes. I have
taken it at Tarrafal, in the south of S. Antão; at Madeiralzinho, in
S. Vicente; near the Villa da Praia, as well as at San Domingos and
St a Catharina, and in the Ribeira dos Orgãos, in S. Iago; and I also
obtained a single specimen of it in Fogo. In S. Iago it was met with
likewise by Mr. Gray.

Genus 64. **LITARGUS**.


94. *Litargus trifasciatus*.

*L. ellipticus*, dense et grosse pubescens, elytris nigris sed lâte rufo-
testaceo trifasciatis; ocellis postice ciliatis; coleopteris nigrescen-
tibus, in limbo dilutioribus, et fascis tribus (uná se. basali valde
obliquá, secundá postmedia, et tertiá parvá apicali, omnibus plus
minus fractís) rufo-testaceís utrinque ornatis; antennis pedibusque
testaceis, illis versus apicem interdum paulo infuscatis.—Long. corp. lin. 1-1¼.

— — —, Id., Col. Atl. 157 (1865).

Habitat S. Antão, S. Vicente, et S. Iago; sub quisquiliis in intermedium editoribusque, late diffusus et hinc inde vulgaris.

This interesting little Litargus, which was detected in Gomera by Dr. Crotch during his first Canarian campaign, and which is represented by the L. pilosus (to which indeed it is closely allied) in the Madeiran Group, seems to be truly indigenous in the Cape Verde archipelago, where it is widely distributed—occurring beneath vegetable refuse, such as dead weeds and the old stalks of Sugar-canes, at intermediate and lofty altitudes. It was taken by Mr. Gray and myself at Aslajas and Catano (towards the head of the Ribeira das Patas), in S. Antão; in great abundance on the extreme summit of Monte Verde, in S. Vicente; and at San Domingos and Sª Catharina, in the interior of S. Iago. It will most likely be found to be universal throughout the islands.

Fam. 20. DERMESTIDÆ.

Genus 65. DERMESTES.

Linnaeus, Syst. Nat. ii. 561 (1767).

95. Dermestes vulpinus.

Dermestes vulpinus, Fab., Spec. Ins. i. 64 (1781).
— — —, Id., Cat. Mad. Col. 72 (1857).
— — —, Id., Col. Atl. 159 (1865).

Habitat S. Vicente, et S. Iago; in cadaveribus, præcipue juxta mare et oppidula, congregans.

The almost cosmopolitan D. vulpinus (at once recognized, apart from its other characters, by the minute spinule at the apical angle of each elytron) has established itself at the Cape Verdes, as completely as it has in the Madeiran and Canarian Groups. It will doubtless be found to be pretty generally distributed over the archipelago, when searched for about the towns and villages in the lower districts; but hitherto it has been observed only near Porto Grande in S. Vicente, and close to the Villa da Praia in S. Iago—in both of which localities it was captured abundantly, out of dead animals, by myself and Mr. Gray. From S. Vicente it has been communicated also by Mr. Miller.
Genus 66. **ATTAGENUS.**

96. *Attagenus ensicornis*, n. sp.

*A. ovalis*, niger, longe et grosse subgriseo pubescens, in capite prothoraceque subtiliter sed in elytris paulo profundius punctulatus; antennis pedibusque rufo-ferrugineis, illarum articulis intermediiis minutis testaceis.

*Mas* antennarum articulo ultimo longissimo, flexuoso, compresso, ensiformi, apicem paululum attenuate.


*Habitat* S. lago; prope oppidum Villa da Praia prope Dom. Gray lectus.

*Obs.*—Ab *A. Schaefferi* et *megatoma* staturā minore, puncturā subtiliore, pube longiore ac paulo magis griseā antennisque omnino pallidis (nee in clavā nigrīs) differe videatur; sed in antennarum maris structurā cum illo melius congruit.

The single specimen (a male) from which the above diagnosis has been drawn out was captured by Mr. Gray, at a low elevation, close to the Villa da Praia, in S. Iago. It may possibly represent but a geographical state of the *A. Schaefferi* (with which in the structure of the greatly elongated last joint of its male clava it seems to agree); but my belief is, that further material will show it to be truly distinct from that species. Judging from the example before me (which perhaps, however, may be an unusually small one of its kind), the *A. ensicornis* appears to be smaller and more finely punctulated than either the *A. Schaefferi* or *megatoma*, and to have its pubescence a little longer, coarser, and more griseous; and its antennae (instead of having the clava black) are entirely pale—being rufo-ferruginous, with the minute intermediate joints even testaceus.

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**Fam. 21. BYRRHIDÆ.**

Genus 67. **LIMNICHUS.**

(Ziegler) Latr., *Régne Anim.* (ed. 2) iv. 510.

97. *Limnichus fragilicornis*, n. sp.

*L. ovalis*, convexus, niger, subnitor, pube grossa suberecta subaurea cinereāque nebulosus; prothorace brevissimo, conico, minutissime et parce punctulato; elytris densius ac multo profundius punctatis, callo subhumerali distincte instructis; antennis gracilibus, perfragilibus, art° ult° globo parum abrupto, sed 5 exterioribus gradatim paulo rotundatioribus, art° 4°, 5° et 6° longiusculos gracilibus,
3° vix latiore, vix breviore, 1° et 2° (illo præcipe) parum majoribus.—Long. corp. lin. vix 1.

Habitat S. Antão; in apricus humidis lutosis juxta marginem rivuli ad Tarrafal parciissime deprehensus.

Two examples of this Limnichus (which appears to be one of the rarest of the Cape Verde Coleoptera) were captured by myself about half a mile up the ravine at Tarrafal, in the extreme south of S. Antão—walking slowly over the wet alluvial mud, in the hot sunshine, near the edges of the stream. It seems to be a trifle larger than the European L. pygmaeus, and to be clothed with a coarser, longer, and more erect pubescence—the colour of which is partly ashy-white, and partly of a somewhat dull-golden or fulvescent hue; and its sculpture is different—its prothorax being more sparingly and finely punctuated, while the punctures of its elytra are, on the contrary, both larger and more dense (and not composed as in that insect of a double series, of large and small ones intermixed). Its antennæ too are a little longer and slenderer than those of the pygmaeus (being excessively fragile), and with the proportions of their joints not quite the same. Of these the last five are very gradually increased in size and roundness; the ultimate one however being conspicuously the largest and most globular; the preceding three (or the 4th, 5th, and 6th) are comparatively elongate and narrow; the 3rd is just perceptibly shorter and wider than these three; and the 1st and 2nd (especially the former) are somewhat, though by no means greatly, enlarged*.

Fam. 22. HISTERIDÆ.

Genus 68. TERETRIUS.

Erichson, in King, Jahrb. i. 201 (1834).

98. Teretrius corticalis, n. sp.

T. breviter cylindricus, niger, nitidulus, ubique dense et profunde punctatus; prosterno postice in medio angusti triangulariter impresso et juxta impressionem lineolâ valde obscûrâ antice evanescente

* Whether the L. fragilicornis approaches Kiesenwetter’s inanus [Ann. de la Soc. Ent. de France, ix. 584. 1851], captured at the edges of the streams near Gèrone, in Catalonia, I have no means of deciding; but, judging from the diagnosis, the latter appears to be considerably smaller, somewhat less convex, and clothed with a shorter and more decumbent pubescence (which is stated to be cerneous, no mention being made of the additional yellowish-fulvescent pile which is so conspicuous in the Cape Verde species). But in the character of their punctation the two insects may possibly have something in common.
utrinque instructo; meso- et meta-stermis canaliculatis, inter se arcte connatis, illius lobo antico magno; pedibus rufo-piceis; tibiis antecis extus circa 5 (–6)–, intermediis 3 (–4)–, et postecis 2 (–3)– spinosis; antennis testaceis, articulo basali paulo picescentiore.—Long. corp. lin. 1.

Habitat S. Iago; sub cortice Fici arido laxo, in intermediis, rarissimus.

This little Teretrius appears to be extremely rare, occurring beneath the bark of trees at intermediate elevations. The only island in which I met with it is S. Iago—where I obtained a few examples under the bark of a large native Ficus, which had recently been felled, in the Ribeira dos Orgãos. It is a true Teretrius (as I have ascertained by a careful dissection, and an examination of its several parts), and one which has indeed a good deal in common with the Euphorbia-infesting T. cylindricus of the Canarian Group. It is, however, smaller and less shining than that species, with its punctuation both deeper and more dense, and with the spinules of its four hinder tibiae fewer in number.

Genus 69. SAPRINUS.
Erichson, in Kung. Jahrb. i. 172 (1834).

§ I. Frons simplex (nec transversim carinata). Elytrorum stria suturalis antice plus minus abbreviata.
(a) Elytris lute maculatis.

99. Saprinus equestris.

S. ater, nitidus; fronte dense punctulatâ, striâ in medio obsoletâ; prothoracî ubique punctulato, punctis in disco levibus, per basin ipsum majoribus, necon ad latera majoribus densioribus et rugose subconfluentibus, intra angulos antecis (subruncenate rotundatos) leviter impresso; elytris ubique punctulatis, punctis in disco antico levissimis, striis circa 5 obliquis abbreviatis plus minus fractis irregularibus, necon suturali antice vix (aut paululum) abbreviata impressis, singulis maculâ magna transversâ trilobata submediâ in tus abbreviata flavâ ornatis; pygidio dense punctato; prostrui striis integris, antice et postice divergentibus; mesosterno margi nato, dense et profunde punctato; antennis ad basin pedibusque nigro-piceis, funiculo tarsiisque piceis, clavâ ferrugincâ; tibiis antecis obtuse circa 7- deuti culatis.—Long. corp. lin. 2 1/4–vix 3.


Habitat S. Vicente; in cadaveribus stercoreoque humano gaudens.
This beautiful *Saprinus*—remarkable for the large, transverse, yellow patch on the outer disk of each elytron, for its sutural stria being but *very* slightly abbreviated in front, and for its entire upper surface being punctured (the punctures, however, on the prothoracic, and more especially on the elytral, disk being exceedingly fine and lightly impressed)—was first described by Erichson, in his Paper on supposed "Angolan" Coleoptera. The *Saprii* being insects of a wide geographical range, it is by no means impossible that the *S. equestris* may truly occur so far to the south on the African coast; but since it is now well known that the collector (sent from Berlin) who died in Angola, sojourned in these islands on his outward route, and that his material from the two regions was mixed up indiscriminately, I think we must require further evidence before concluding that the present *Saprinus* is really an Angolan one at all. So far as I have been able to ascertain, it is confined to S. Vicente; though we may naturally expect that it will at all events be found in S. Antão, and the other neighbouring islands which form the northern division of the archipelago. Nevertheless hitherto it is only in S. Vicente that it has been detected (unless indeed the *S. perinterruptus* be regarded as a mere variety of it, peculiar to the more southern islands), where it is abundant (in carrion and dung) at low elevations around Porto Grande—a locality in which it was taken not only by myself and Mr. Gray, but by several other collectors (including the Rev. Hamlet Clark and Captain F. W. Hutton) who have, on various occasions, touched at S. Vicente.

100. *Saprinus perinterruptus.*

*S. precedenti similis sed plerunque paulo major atque etiam nitidior (sc. nitidissimus), necnon in disco prothoracis et præsertim elytrorum minus evidenter punctulatus (fere quasi impunctatus), horum striā suturali antice magis abbreviāta et maculā late rubrā (nee flavā), mesosterno parcius (tamen profunde) punctato.—Long. corp. lin. 2½—3.*

*Saprinus perinterruptus, De Mars., Ann. de la Soc. Ent. de France, 350 (1855).*

*Habitat S. Iago, Fogo, et Brava; stercore humano cadaveribusque, præsertim illo, in inferioribus intermediisque delectatus.*

Whilst the preceding species has been detected hitherto only in S. Vicente, the present one appears to take its place in the more southern islands of the Group—I having captured it in S. Iago (where it was found likewise by Mr. Gray), Fogo, and Brava. It occurs both
at low and intermediate elevations—my S. Iago examples being from the Villa da Praia and the Ribeira dos Orgãos, the Fogo ones from the Porto da Luz, and the Brava ones from the hills immediately below the Povoação. As already implied, I cannot feel quite certain that it is more than a state of the *equestris* characteristic of the southern division of the archipelago—or, rather, perhaps, that the *equestris* is more than a small, less highly coloured, and more punctured variety (peculiar to S. Vicente) of the *perinterruptus*. Still, since the features (such as they are) which separate the two seem to be permanent, and the *perinterruptus* was described as distinct from the *equestris* by De Marseul, I will not venture to reamalgamate them.

As will be gathered from the above diagnosis, the *S. perinterruptus* differs from the *equestris* in being on the average a little larger, even still more highly polished, and with its punctuation altogether lighter—the punctures on its prothoracic disk being nearly, and those on its elytral disk quite, obsolete. Its elytra likewise have their sutural stria more abbreviated in front, and their patch (instead of being yellow) of a beautifully clear red; and its mesosternum, although deeply, is not so densely punctured as in that insect*.

(b) *Elytris concoloribus.*

101. *Saprinus semipunctatus.*

*S. viridi-cyaneus, submetallicus, nitidus; fronte punctulata, marginali tenui integrâ sinuâta; prothorace ciliato, versus latera necnon per basin ipsam (medio excepto) rugose punctato, striâ marginali ante angulos posticos terminatâ; elytris postice parce punctatis (punctis in medio obsoletis), intra humeros strigis perpauce irregulares longitudinaliter notatis, striis profundis, subhumerali distinctâ, 1–4 dorsibus obliquis vix ante medium abbreviatis (*4th* suturalique antice valde abbreviatis): pygidio dense et profunde punctato; prostonimo plano, striis integris, antice et postice divergentibus; mesosterno marginato, leviter punctato; antennis pedibusque plus minus paulo picescentioribus.—Long. corp. lin. 3–4.

Hister semipunctatus, *Fab., Ent. Syst.* i. 72 (1792).


*Habitat* S. Vicente, et S. Iago; praecipue in cadaveribus congregans.

* De Marseul's description would make it appear that there are differences in the protension stric, tibial denticulations, &c. of the *S. perinterruptus*, as compared with the *equestris*; but, after a most careful inspection of an extensive series of both species, I cannot detect any permanent differential characters for the former except those to which I have called attention in the above diagnosis.
The dark greenish-blue, submetallic surface of this large *Saprinus*, combined with the finely ciliated edges of its prothorax, and its greatly abbreviated sutural and fourth "dorsal" striae, will, apart from all minor characters, at once distinguish it from the other species here described. It is an insect of a very extended geographical range, occurring in the south of Europe, Russia, Siberia, Syria, northern Africa, the Azores, Senegal, and even at the Cape of Good Hope. It will most likely be found universally throughout the Cape Verde archipelago; nevertheless hitherto it has been captured only in S. Vicente and S. Iago—where it was taken by Mr. Gray and myself, out of dead animals and carrion, in spots of a low elevation towards the coast. Although so widely diffused, it has not yet been observed in either the Madeiran or Canarian Groups.

§ II. *Frons ab epistomate carinā (vel lineā) transversā distinctā divisa. Elytrorum strīa satunalis antice integra (cum quartā dorsāli arcua- tin coēnus).*

102. *Saprinus Paivae*, n. sp.

*S. ovalis*, æneus, nitidus; fronte impunctatā sed antice irregularīter bistrigosā, carinā transversā grossā rectā; prothorace lēvi, per basin ipsissimam punctis sat profundis, necnon interdum intra angulos anticos (subporrectos) perpaucis levissimis obsoletis impresso; elytrorum dimidiā parte postica leviter et parce punctatā (punctis versus latera obsoletis), striis profundis, humerali tenui obliquā, 1–4 dorsālibus subaequalibus vix ultra medium ductis; prosterno sinuato, apice minute carinato, striis ad apicem ipsum disjunctis, in medio subapproximatis, postice divergentibus; mesō- et meta-sternis impunctatis; antennis pedibusque plus minus piceis; tibiis antīcis 5-grosse circa dentatis.


*Habitat* S. Vicente, S. Iago, et Fogo; prācipue in stercore humano in aridis inferioribus gaudens.

A small stercoraceous *Saprinus* which was taken abundantly by Mr. Gray and myself, near the sea-beach, in S. Vicente, and subsequently, in similar situations, in S. Iago and Fogo. It is a variable species, not only in size and colour (for, although generally brassy, it has sometimes a blackish and at others a slight submetallic tinge), but even in its sculpture; for in the S. Vicente and Fogo examples the prothorax, except along the extreme basal edge, is nearly, and
often quite, impunctate, whereas in those from S. Iago it is distinctly punctuated behind the anterior angles, and even towards the sides. Moreover, these latter individuals (which I have treated as the "var. β. approximata") have their elytral punctures also a little denser and more coarse; but since in every other particular they seem to agree with the specimens from Fogo and S. Vicente, I think that this tendency to become somewhat more punctuated is a mere local peculiarity, and has no claim to be regarded as a specific difference.

Although unquestionably distinct from it, the present Saprinus is allied to the S. dimidiatus of Mediterranean latitudes. It differs, however, inter alia, in being, on the average, a little smaller, and of a more brassy (or even greenish-brassy) tinge—in its sculpture being altogether finer, the punctures moreover covering a smaller portion of the elytra—in its prosternum being less sinuate, with the lines less approximated and more evidently shortened anteriorly—and in its meso- and meta-sterna being quite impunctate.

I have dedicated this Saprinus to my learned friend the Barão do Castello de Paiva; and am glad to connect it with a name which is so justly honoured in the scientific annals of Portugal, and which has already been associated with the discovery of some of the most interesting of the Coleopterous forms in the various islands of these Atlantic Groups.

103. Saprinus geminatus, n. sp.

S. rotundato-ovalis, aeneus, nitidus; fronte minute punctulatā, carinā transversā tenui subrotundatā, angulis (oeulos haud occultantibus) obtusis; prothorace leviter punctulato (punctis in disco fere obsoletis), per basin ipsam profundius punctato, angulis antecis rotundate obtusis; elytrorum dimidiā parte posticā leviter et parce punctatā (punctis versus latera subobsoletis), striis grossis profundis, humerali tenui obliquā, 1–4 dorsalibus elongatis longe ultra medium ductis (4ᵃ paulo breviore), suturali subacutā; prosterno plano, augusto, striis parallelis, postice sulm paulo divergentibus, fere integris (ad apicem ipsissimum minutissime disjunctis); meso- et metasterno parce punctato; antennis pedibusque plus minus rufo-piceis; tibiis antecis circa 5-dentatis.—Long. corp. lin. vix 1³/₄.

Habitat S. Iago, et Fogo; in locis similibus ac praecedens.

A very distinct little Saprinus, easily recognizable by its small size, somewhat rounded outline, brassy hue, and by its four dorsal striae being exceedingly coarse and elongate (the first three, indeed, almost reaching to the apical margin of the elytra). In minor particulars, its anterior prothoracic angles are very blunt and round;
its transverse frontal keel is rather fine, and regularly (though slightly) rounded, with its lateral angles (which do not quite conceal the eyes, beneath them) obtuse; and its sutural stria is appreciably subarcuated in the centre. It is found in company with the *S. dimidiatus*, and is doubtless quite as universal throughout the archipelago; nevertheless hitherto it has been captured only in S. Iago and Fogo, where I met with it (in dung) at low elevations near the coast.

104. *Saprinus minyops*.

*S. rotundato-ovalis, niger vel piceo-niger (rarius subæneo tinctus), nitidulus; fronte minute punctulatâ, semicirculari, carinâ transversâ (lineato-marginatâ) grossâ subbisinuate rectâ, utrinque minutissimâ sinuâtâ, angulis ipsis (oculos parvos occultantibus) prominulis acutis; prothorace leviter (præsertim in disco) punctulato, per basin ipsam profundius punctato, angulis antieis obtusiis; elytris leviter punctulatis (punctis versus bas inèt latera subosculato), stribis profundis, humerali tenui obliquâ, 1–4 dorsaliibus (1 linea paulo longiore exceptâ) vix ultra medium ductis; prosterno sub-sinuato, angusto, striis subparallelis, apice vix, postice paulo divergentibus; mesosterno paree punctato; antennis pedibusque plus minus piecis; tibiis circa 5-dentatis. — Long. corp. lin. vix 1½.*


*Habitat* Fogo; unà eum speciebus praecedentibus degens.

The only two examples of this very minute *Saprinus* which I have yet seen from the Cape Verdes were taken by myself, out of dung, near the Porto da Luz, in Fogo. Whether it is identical with any of the numerous species of De Marseul’s Monograph, I will not undertake to decide; but it is at any rate Canarian, I having captured it in the three eastern islands of that Group. It is, if anything, even smaller than the *S. geminatus*; but, apart from its size, and its many minor characters, it may be known by being usually almost black (instead of brassy), and by its transverse frontal keel being very coarse, bounded behind by a contiguous impressed line, and appearing at first sight to be nearly straight—though when closely inspected it will be seen to be minutely sinuated within either angle, which latter is rather acute and prominent (so as entirely to conceal the eye, when viewed from above). Its dorsal striae are shorter, and not quite so coarse, as in the last species; and although the first of them is a trifle longer than is the case in the ordinary Canarian type, the remaining three extend only to about the middle of the elytra.
Genus 70. **Paromalus**.


105. *Paromalus* digitatus, n. sp.

*P.* oblongo-ovalis, depressus, niger vel piceo-niger, ubique subaequaliter (paullo profundis in elytris) sat dense profundeque punctatus; prosterni striis integris; elytris striis perfanmis obliquis brevibus valde obscuris interruptis obsoletis versus humeros instructis; antennis pedibusque rufo-piceis, illarum clavâ testaceâ; tibiis anticus latis, arcuatis, extus 4-spinulosis, ad angulum internum in spinam magnam elongatam acutam digitiformem produc-tis; intermediis circa 3- (minimis exceptis), et posticis circa 2-setoso-spinulosis.—Long. corp. lin. 1.

*Habitat* S. Tago, et Fogo; sub cortice, in illo *Feci* sed in hoc *Euphorbia*, bis captus.

The comparatively flattened body, and deeply, regularly, and rather densely punctured surface of this little Histerid, added to the elongate outwardly-directed spine at the apex of its anterior tibiae, and the fact of its elytra being totally free from striae, if we except a few short, oblique, interrupted, very obscure, and irregular ones towards either shoulder, will at once separate it from everything else with which we have here to do. In the details of its sterna, antennae, and oral organs I can detect nothing in which it differs structurally from *Paromalus*—unless it be that its inner maxillary lobe seems (when viewed under a very high power of the microscope) to be armed at the tip with an exceedingly minute, sharp, downwardly-curved hook; but as the same lobe in my nearly allied genus *Eutrip-tus* is undoubtedly uncinate at the extremity, I am inclined to suspect that the whole of these immediate forms (despite the usual diagnoses, and the figures given by De Marseul) will be found in reality with more or less of this structure*. The elongate, outwardly-directed, finger-like spine at the extremity of its fore tibiae is remarkably conspicuous; but a similar appendage (though often on a somewhat smaller scale) exists in most of the *Paromalis* and *Carcinopis*, as it likewise does in the Madeiran and Canarian *Eutriptus patricola*.

Like the normal *Paromalis*, the *P. digitatus* resides beneath the

* Since writing the above, I perceive that Dural, with his wonted accuracy, has figured the maxilla of *Paromalus* correctly. He makes this minute claw, however, which terminates the inner lobe, to be *bifid*—which I scarcely think is the case in the *P. digitatus* (now before me); though it may very possibly be so in the *flavicorns*, which he dissected. It would consequently appear that all the characters of the Cape Verde insect are essentially those of *Paromalus*. 
bark of trees; but it is evidently one of the rarest of the Coleoptera of these islands, where it appears to occur at low and intermediate altitudes. Indeed I have seen but two examples of it, both of which were captured by myself—one, under the dead bark of a native Ficus, close to the Villa da Praia, in S. Iago; and the other, beneath Euphorbia-bark, at the Monte Nucho, in Fogo.

Fam. 23. APHODIADÆ.

Genus 71. APHODIUS.
Illiger, Käf. Preuss. i. 28 (1798).

106. Aphodius tæniatus.
— — —, Id., Cat. Atl. 177 (1865).
Habitat S. Antão, S. Vicente, S. Iago, Fogo, et Brava; stercus, præcipue in aridis inferioribus, colens.

An Aphodius which I first detected in the two eastern islands of the Canarian Group, and one which is widely spread over the Cape Verde archipelago—where we may be almost sure that it will be found eventually to be universal. It occurs in dung, especially at low elevations, having been taken by myself at Tarrafal in the south of S. Antão, as well as in S. Vicente, near the Villa da Praia in S. Iago, and around the Porto da Luz in Fogo—in which last island, and in Brava, it was met with likewise by Mr. Gray. From S. Vicente it has also been communicated by Mr. Miller. It may easily be recognized by its cylindrical outline, and by its head, prothorax, and a broad sutural band being black (or nearly so), while the rest of its elytra are testaceous. It is a good deal allied to the common European A. nitidulus—though, I believe, as elsewhere stated, truly distinct from it.

107. Aphodius lividus.
Scarabæus lividus. Oliv., Ent. i. 3. 86 (1789).
Aphodius lividus, Woll., Ins. Mad. 225 (1854).
— — —, Id., Cat. Mad. Col. 78 (1857).
— — —, Id., Cat. Atl. 178 (1865).
Habitat S. Antão, S. Vicente, S. Nicolão, S. Iago, et Fogo; in stercore, late sed vix copiose diffusus.

The widely spread A. lividus—which occurs in most parts of
Europe, in northern and western Africa*, as well as in the Madeiran and Canarian Groups, and which was obtained by Mr. Bewicke even at St. Helena—we may be pretty sure will be ascertained to be universal throughout the Cape Verde archipelago. It is found in dung, at most elevations, but does not appear anywhere to be abundant. It was taken by Mr. Gray and myself in S. Antão, S. Iago, and Fogo, and also by the former in S. Nicolão; while from S. Vicente it has been received by the Barão do Castello de Paiva. Its short, cylindric outline, very glossy surface, and pale lurid hue—the head, prothorax, and elytral suture being more or less darkly infuscated—combined with the large punctures which are scattered irregularly and sparingly over its (basally immarginate) prothorax, will suffice to distinguish it.

108. Aphodius Paivanus, n. sp.

*A. cylindricus, nitidus, picceo-niger in limbo plus minus paulo dilutior; capite dense punctulato; prothorace magno, convexo, profunde et parciisime punctum punctulisque minutissimis (vix observandis) interjectis irrurato, basi immarginato; elytris argute crenato-striatis, in interstititis minutissime (vix perspicue) parceque punctulatis; antennis palpisque testaceis; pedibus ruf-o-piceis.

Mas tubereulis frontalibus (præsertim medio) distinctioribus.—Long. corp. lin. 1 5/2—vix 2.

Habitat Fogo, et Brava; in locis similibus ac præcedens.

*Obs.—A. livido nimis affinis, sed fere niger vel picceo-niger (nee saturate pallidus et hinc inde fusco pictus), ad latera (præsertim antice) minus ciliatus, elypeo mox ante oculos vix magis rotundato-exstanti, prothorace submajoore, subconvexiore punctisque magnis densius irrurato. In honorem amici mei Baronis Castello de Paiva huic Aphodio nomen triviale dedi.

It is just possible that this may be but a dark (and otherwise somewhat altered) state of the *A. lividus; but although I have examined a considerable series of it, as well as of the latter, I cannot detect any intermediate links between the two. Apart from its mere colour—which is almost black, or picceous-black, though a little diluted towards the sides—it differs in being less evidently ciliated at the edges (which is very perceptible anteriorly), in its elypeus being a trifle more rounded outwards immediately in front of either eye, and in its prothorax (which is perhaps, if anything, somewhat larger) being more densely besprinkled with coarse punctures. I

* I captured it at Mogadore, on the coast of Morocco, and possess Egyptian examples which were taken by the late Mr. Melly.
observed it only in the southern part of the archipelago, namely, near the Porto da Luz in Fogo, and in the Ribeira do Sorno in Brava—in which latter island it was found likewise by Mr. Gray. I have had much pleasure in deducing it to the Barão do Castello de Paiva, whose varied labours in the cause of Natural History are well known—not only in Portugal, but throughout the scientific world.

109. Aphodius Rendallii, n. sp.

A. subcyclindricus, nitidus, testaceus; capite prothoraceque vix magis obscuris, profunde aequaliter punctatīs, illius elypeo valde singuato (mox ante oculos rotundato-exstanti), hoc brevī convexo, ad latera valde rotundato, basi immarginato; elytris sat profunde punctato-striatis, interstitiis subconvexis et parcissime sub-uniseriatiim punctulatis.—Long. corp. lin. 1\(\frac{3}{4}\).

Habitat S. Vicente; juxta oppidulm Porto Grande semel repertus.

Obs.—Species A. livido vix minor, vix minus cylindrica et magis pallida, capite prothoraceque densius et subaequaliter punctatis (nee parcissime irregulariter punctatis punctulisque minutissimis interjectis adspersis), hoc breviores convexiores ad latera magis rotundato, elypeo magis singuato (mox ante oculos magis rotundato-exstanti), elytris profundiis subpunctato- (nee argute crenulato-) striatis, interstitiis convexioribus ac punctulis etiam paucioribus conspiciueque majoribus (tamen minutis) subseriatiim notatis. Aphodius valde distinctus, et in honorem G. K. Rendall, armigeri, in insula Sancti Vincentii celebris, ob gratias nobis benignae oblatas, amicà mente citatus.

The single specimen from which the above diagnosis has been compiled was taken by myself, near Porto Grande, in S. Vicente; but as I have no means of ascertaining whether it is completely mature, it is possible that the species which it represents may not be quite so pallid as I have been compelled to describe it. It is closely allied to the A. lividus; but, apart from its paler hue (which may, or may not, be a distinctive feature), it is apparently a trifle smaller and somewhat less cylindrical than that insect; its head and prothorax are much more densely, and equally, studded with large punctures (in lieu of the few large ones, and minute ones intermixed, which characterize the lividus), and the latter is shorter, convexer, and more rounded at the sides; its clypeus is more sinuate, being more suddenly rounded outwards immediately in front of either eye; and its elytra have their striae deeper, and more evidently and sparingly punctured (instead of crenulate), with their interstices less depressed, and more remotely studded with larger (though, at the
same time, very minute) punctules— which have a slight tendency to arrange themselves in longitudinal rows∗.

I have dedicated this *Aphodius* to G. K. Rendall, Esq., of S. Vicente; to whose kindness we were much indebted, in various ways, during our sojourn in that island, and on whose property at Madeiralzinho some of our most valuable and characteristic insects were collected.

Genus 72. **RHYSEMUS.**

110. **Rhysemus rugatus**, n. sp.

*R. subovato-elongatus*, rugosus, opacus, niger vel pieco-niger, in limbo vix subdilutior; capite grosse tuberculato, in fronte gibbo et plus minus rugato; prothorace fortiter ciliato, postice angustato, angulis anticus porrectis, inequali, tuberculato, costis magnis obtusis, plus minus undulatis irregularibus (subbasalis in medio omnino, et reliquis sepium fere, fractis) circa 5 transversim instructo; elytris profunde striatis, in striis necon in interstitiis (præsertim postice subcostato-elevatis) seriatim tuberculatis; pedibus validis, rufo-piceis, tibiis anticus extus longe tridentatis.—


**Habitat** S. Antão, S. Vicente, S. Iago, et Fogo; sub quisquiliis, præsertim in humidis atque etiam in aquosis, late diffusus.

Found beneath decaying vegetable refuse in damp, and even watery, spots—principally at intermediate, but sometimes at low, elevations. It is widely spread over the archipelago, where in all probability it is universal. Indeed I am far from satisfied that it is specifically distinct from three examples in my possession which were taken by the late Mr. Melly in Egypt; so that it may perhaps be an insect of an extended African range. Yet, on the other hand, I should mention that I forwarded it to the Baron Harold, while he was engaged in monographing the *Aphodiade*, who returned it as a new species of *Rhysemus*—which would hardly have been the case if it were identical with an ordinary north-African form†. Whether,

∗ From the *A. rufus* (found in Mediterranean latitudes, and at Madeira) the *A. Rendalli* differs principally in its head and prothorax (the latter of which is rather shorter, convexer, and more rounded at the sides) being much more coarsely, sparingly, and equally punctured, in its elytra having their striae deeper and more remotely punctured, and the punctules of their interspaces (although small) less minute, and more distant than is the case in that species, and in its tibiae being more powerfully armed with spiniform setae.

† Mr. Melly’s Egyptian specimens are, if anything, a trifle smaller, with their prothorax just appreciably more abbreviated, and their elytral striae not quite so
however, it be found on the African continent, or not, it is at least very general throughout the Cape Verde Group—having been taken by Mr. Gray and myself at Tarrafal, as well as in the Ribeira Fria, the Ribeira das Patas, the Ribeira da Babosa, &c. in S. Antão, at Madeiralzinho in S. Vicente, and near the Villa da Praia at Sª Catharina, and in the Orgãos ravine of S. Iago; and I subsequently met with it at the Fonte of the Monte Nucho, in Fogo. From S. Vicente it has also been communicated by the English Consul, Mr. Miller.

As may be gathered from the above diagnosis, the opake and roughly sculptured surface of this insect—which has its prothorax deeply grooved across with three or four wide irregular channels, which consequently shape-out between them a few (more or less broken, or interrupted) transverse costæ, whilst its elytra are densely crowded with longitudinal tubercles (not merely down their striae, but also down their subcostate interstices)—will at once remove it from everything else included in the present volume.

**Fam. 24. TROGIDÆ.**

**Genus 73. TROX.**

Fabricius, *Ent. Syst.* i. 86 (1792).

111. Trox nobilis, n. sp.

*T. oblongus, niger, squamulis lutosis fulvo-cinereis densissime tectus; scutello hastato; elytris laxe substriato-punctatis (punctis magnis), in interstitiis seriatis sed subirregulariter minute tuberculatis (tuberculis singulis setulæ brevissima brevissima suberecta fulvescenti instructis), suture interstitiisque alternis sed obtuse (reliquis vix) elevatis necon subinterruptis tessellatæ—quasi nodos elongatos subcinereos (fasciculæ tuberculorum minutorum obsitos), inter se spatius glabros nigros diviso, efficientibus; margine externo integro (nec crenulato); pedibus (saltem posterioribus) robustis, setosis, nigris, extus et supra (nec intra) squamulis lutosis fulvo-cinereis densissimæ tectis.—Long. corp. lin. circa 6½ (forsan etiam 7).

*Habitat* Fogo; in statu fracto, mortuo, sub lapidibus, in collinis aridis maritimis juxta Porto da Luz lectus.

The dead and mutilated remains of this gigantic *Trox* were found by Mr. Gray and myself, beneath stones, on the dry maritime cliff conspicuously furnished with longitudinally-disposed tubercles; but differences thus small, and doubtful, may possibly indicate no more than a slight geographical variety of the Cape Verde species.
immediately above the landing-place at the Porto da Luz, in Fogo; and although we could not obtain more than the posterior half of it in a perfect state, yet the elytral sculpture and clothing are so well defined that I feel sure the above diagnosis will amply suffice, at any future time, to identify the species; and it seems to me very undesirable that so important and conspicuous an insect should (through the mere fact of its prothorax and anterior legs not having been examined) be omitted from the present volume. In Erichson’s Paper on supposed “Angolan” Coleoptera two species of Turx are described—one of which (the T. varicosus) might, so far as its size is concerned, suit the T. nobilis; but there is apparently little else in which it would agree with the latter; whilst the other (T. radula), although with a hastate scutellum like the one under consideration, is altogether smaller, with its lateral margin crenulated, and evidently different in a variety of particulars. I am satisfied, however, that, if any collector should be fortunate enough to procure this noble insect from the Cape Verdes, he will find no practical difficulty in recognizing it from the partial description which I have given above.

Fam. 25. CETONIADÆ.

Genus 74. DIPLOGNATHA.
Gory et Percheron, Mon. des Cét. 31 (1833).

112. Diplognatha gagates.

D. elongato-subquadrata, subitus nigra, supra clarea castanea nitidissima glabra; capite nigrescoentiore, subquadrato, profunde et dense punctato, utrinque ante oculos grosse longitudinaliter costato, margine antico elevato; prothorace antice angustato, ad latera rotundate sinuato et (praesertim in medio) grosse marginato, antice et presertim utrinque punctis inaequalibus parce irrorato; scutello magno, triangulari, vix obscuriore, omnino elytrique fere impunctatis, malleato-inaequalibus, singulis in disco postico foveolâ mediâ impressis, mox ante apicem in medio gibbis, necon ad angulum ipsum suturalum paululum subelevato-ampliatis; pygidio, antennis pedibusque nigris, tibiis antice extus fortiter tridentatis.—Long. corp. lin. 11.

Scarabeus gagates, Forst., Nov. Spec. Ins. 6 (1771).
Cetonia gagates, Fab., Syst. Ent. 49 (1775).
— — , Olivier, Ent. t. 6. 25 (1789).
Diplognatha gagates, Gory et Perch., loc. cit. 123, pl. 18. f. 1 (1833).

Habitat Brava; sub lapide quodam, in terram fodiens, exemplar unicium in montibus collegi.
This large, highly-polished, and beautifully castaneous Diplognatha is the only Cetoniad as yet detected in the Cape Verde archipelago; and even it is unique—the solitary example from which my diagnosis has been compiled having been captured by myself, about 1200 feet above the sea, in the island of Brava. It was in the cultivated region immediately below the Povoação that I met with it—nearly buried in the soil, under a block of stone, in one of the numerous Banana-grounds for which that district is so famous. In a locality thus remote it is difficult to believe that the species is not truly indigenous; nevertheless the excessive rarity of the larger Lamellicornis throughout the whole of these Atlantic Groups, added to the fact of the specimen being the only representative of its particular Section which has hitherto been brought to light, might almost tempt us to suspect that it may have become naturalized in Brava through some accidental transportation from the African coast—where it appears to be common. It is recorded principally from Senegal and Guinea, but I believe that its range extends much further to the south. Indeed the example before me might in some respects agree better with the silicea, of MacLeay, from Natal; but since the latter is now regarded as a mere variety of the gagates, it is scarcely necessary to decide for certain whether this be the ease or not.

Fam. 26. ELATERIDÆ.

Genus 75. HETERODERES.

Latreille, Ann. de la Soc. Ent. de France, iii. 155 (1834).

113. Heteroderes grisescens.

H. elongatus, postice attenuatus, subopacus, niger sed pube grisea sericea brevi minuta densissime vestitus, antennis rufo-, palpis pedibusque testaceis; capite prothoraceque parce subtiliter punctatis punctulisque minoribus subtilissimis intermediis dense tectis, hoc elongato angulis posticis valde productis; elytris angulo-striatis, in interstitiis subtilissime et densissime punctulatis. —Long. corp. lin. 4 1/4-5 1/4.


Habitat S. Vicente, et Fogo; sub lapidibus ramulisque plantarum fractis desiccatis emortuis humi jacentibus, praecipe in aridis apricis inferioribus, velociissime currens.
This insect is especially interesting, from the fact of its being the only member of the vast family Elateridae which has hitherto been found in the Cape Verde archipelago. I have elsewhere commented on the extreme scarcity of the Elaterids throughout the whole of these Atlantic islands,—the little genus Coptostethus (which is but just represented at the Madeiras, and has six closely allied exponents at the Canaries) embracing all the members of it as yet detected in the two more northern Groups. In the Cape Verdes, however, that particular form does not seem to exist, the comparatively gigantic Heteroderes grisescens (an insect of a wide geographical range, having been recorded from Mesopotamia, Syria, Egypt, and Senegal) taking the place of the Coptostethi. Although we may expect that it will be found eventually to be pretty general, it is only in S. Vicente and Fogo that the Il. grisescens has (up to the present time) been observed. In the former of these it was met with by Mr. Gray and the Rev. Hamlet Clark, during December 1856, as also by Mr. A. Fry and Mr. Miller; whilst in the latter I took it, rather abundantly, beneath stones (and the dry, broken-up sticks of small plants), during February 1866, around S. Filippe and the Porto da Luz.

Fam. 27. MALACHIADÆ.

Genus 76. PECTEROPUS.
Wollaston, Ins. Mad. 247 (1854).

It is not impossible that the curious little Malacoderm described below may constitute the type, eventually, of a separate genus; nevertheless with the evidence to be gleaned from merely a single specimen, and that one not only a female but perhaps imperfectly developed, I will regard it for the present as a Pecteropus,—believing that the front feet of its male sex (when obtained) will show the unmistakeable structure which characterizes that group and Attalus. If the individual however from which my diagnosis has been drawn out is a normal one of its kind, I have no doubt that, sooner or later, a genus must be established to receive it; for, apart from its extraordinary facies and sculpture, its elytra are most anomalously abbreviated, and subventricose behind—where each of them is separately rounded off at scarcely more than the midway point between the base of the pro-thorax and the extremity of the abdomen, occasioning the latter to be marvellously exposed. Yet, until further material has been procured, I cannot feel positive that this is not accidental, and dependent on
some miscarriage, or lapsus naturae, in the development. Be this however as it may, its other characters are also so remarkable that it is impossible to confound the species with anything else here enumerated.

The anteriorly-narrowed outline and depressed oval head of this Malacoderm are more in accordance with Pectoropus than with Atta-lus; but its eyes are smaller than is the case in either of those groups; whilst its uniformly dull-black surface, which is nevertheless clothed with a short decumbent silvery pubescence, its extremely flattened prothorax, apterous body, short, transverse scutellum, basally-attenuated elytra, and very singular sculpture—the head and prothorax being quite impunctate, but most densely and coarsely alutaceous, whilst the elytra are closely roughened with infinitesimal tubercles and punctures which are intermixed (much after the fashion of some of the Meloës) with larger inequalities or wrinkles—all combine to give it a very unusual appearance.

114. Pectoropus Milleri, n. sp.

P. apterus, niger sed pube brevi demissâ argenteo-cinereâ ubique vestitus; capite prothoraceque depressis, valde opacis, minutissime densissimeque granulatis (aut alutaceis), illo ovali ocellis parvis, hoc antice rotundato, postice angustiore, basi recte marginato; scutello parvo, brevi, transverso; elytris vix minus opacis, antice angustatis, (in specimine nostro, sed an semper?) brevissimis, abdomine multo brevioribus, postice gradatim inflatris, ad apicem singulatim rotundatis, ubique densissime et minutissime (vix perspicue) punctulatis atque subtuberculatim rugulosis, neconon rugis majoribus paulovag-que scabras; antenna pedibusque nigris elongatis, his gracilibus. —Long. corp. lin. 1 ½.

Habitat S. Vicente; in excelsioribus à cl. T. Miller, armigè, in ins. Cap. Viridis Consule Britannico, semel deprehensus, cujus in honorem ob gratias oblatas nomen triviale proposui.

The single specimen described above was taken by T. Miller, Esq., H.B.M. Consul for the Cape Verdes, in S. Vicente—I believe, at a high elevation, on Monte Verde; and it is peculiarly interesting as being the only member of the great Section Malacodermata (as now usually limited) which has hitherto been found in the Cape Verde archipelago. This latter fact however may be chiefly owing to our having explored the islands during the winter months, and in the driest season which had been known for several years—when flowers (and, consequently, flower-infesting insects) would naturally be scarce; for it is hardly likely that a department of the Coleoptera which is
numerosely represented in the Canaries, and tolerably so at Madeira, should be almost absent from the more southern Group. I have had much pleasure in dedicating it to its worthy captor, whose long residence in S. Vicente has been of such signal benefit to that island, and to whose kindness and local knowledge we were vastly indebted during our late trip.

Fam. 28. CLERIDÆ.

Genus 77. AFTEROCLERUS (nov. gen.).

Corpus apterum, pubescens, nigro testaceoque pictum; capite sat magno convexo, oculis subgrosse granulatis, intus emarginatis; prothorace transverso-subquadrato, ad angulos posticos obtuse rotundato; elytris brevisibus, fusiformibus, punctato-striatis. Antennæ fere ut in Thanasimo, sed apicem versus etiam minus inerassatae, articulis subgracilioribus, ult° penultimo paulo majore, ovato sed apice suboblique paulo acuminato. Labrum membranaceum, transversum, antice profunde bilobum ac longe parceque pubescens. Antennæ fere ut in Thanasimo, sed apicem versus etiam minus incrassatæ, articulis subgracilioribus, ult° penultimo paulo majore, ovato sed apice suboblique paulo acuminato. Labrum membranaceum, transversum, antice profunde bilobum ac longe parceque pubescens.

It is possible that the present genus may be identical with Chevrolat's Dozocolletus from southern Africa, with which in the rather small size, apterus, pubescent body, somewhat enlarged head, and anteriorly-narrowed, punctate-striate, brownish-testaceous (but more or less darkly fasciated) elytra of its type it would seem to agree; nevertheless in that group the terminal joint of the antennæ is said to be longer than the preceding two united ("plus long que les deux précédents réunis"), whereas in the Cape Verde insect it is scarcely longer (though of course wider) than the penultimate one alone—being much as in the ordinary Thanasimo; and the prothorax appears from the diagnosis to be constricted posteriorly, after the usual pattern which obtains in Thanasimus and Clerus (instead of
being, if anything, rather enlarged behind, and only rounded-off obtusely at the basal angles). I have therefore thought it better to enunciate it as a new group; for there is certainly no other to which it can be referred, if it be distinct from Dozocolletus.

What may be the habits, in southern Africa, of the Dozocolleti I cannot tell; but the Cape Verde insect is dependent on the Euphorbias, to which indeed I believe it to be exclusively attached. There is an eccentricity, however, in its mode of life which I have not before remarked in any representative of this immediate family; for although there cannot be much doubt that it undergoes its transformations within the decayed Euphorbia-stems, it nevertheless in the perfect state as frequently occurs beneath stones as in connexion with the former,—thus exhibiting a kind of lurking propensity unprecedented in the Cleridae, but for which its apterous body would seem to adapt it.

115. Apteroclerus fusiformis, n. sp.

A. nigro- vel piceo-brunneus, in elytris testaceo pictus, antennis, palpis pedibusque testaceis, subnitidus, pube mollis subdemissâ fulvâ vestitus pilisque perpaucis longioribus suberectis (præsertim antice) adspersus; capite prothoraceque dense tuberculato-punctulatis (i.e. punctulis singulis, præcipue in hoc, in tubercul singula minuta impressis), illo magno convexo, hoc transverso-subquadrato, intra angulos posticos (obtuse rotundatos) malleato-impresso, antice saepius dilutiore, pone apicem transversim constricto, basi grosse marginato, in disco postico grossius tuberculato; elytris brevibus, fusiformibus (etiam antice sensim angustatis), punctato-striatis (punctis antice magnis, postice evanescentibus) punctulisque minutissimis dense irroratis, brunnco-testaceis, in fasciâ magna dentata transversâ mediâ, alterâ subbasali tenui valde obliquâ indistinctâ, et tertiâ versus apicem parvâ obscurâ transversâ utrinque abbreviata interdum fractâ, nigro ornatis.—Long. corp. lin. 2½—3½.

Habitat S. Vicente; inter Euphorbias, atque etiam sub lapidibus, in montibus degens.

Found at a high elevation in S. Vicente, where it appears to be attached to the Euphorbias. It was first captured by Mr. Miller, the English Consul, on the summit of Monte Verde—a locality in which it was afterwards met with by myself and Mr. Gray. It is, however, decidedly scarce; and it occurs not only on the Euphorbias themselves, but likewise beneath stones in their immediate vicinity,—a somewhat singular habit for a Clerid.

Genus 78. MICROCLERUS (nov. gen.).

Instrumenta cibaria, color, vestitus prothoracisque forma fere ut in-
genere præcedente, sed palporum maxillarium articulus ultimus apicem versus sensim acutior; corpus minoris magnitudinis, alatum (nec apterum); capite minus incrassato, oculis minus grosse granulatis; elyris longioribus, magis parallelis, minusque sculpturatis (i.e. multo minus evidenter punctato-striatis, sed magis subtuberculato-vage rugosis); neone antennis pedibusque gracilioribus, illis versus apicem vix incrassatis.

A mucos, parvus, et Clerus.

Although with nearly the same kind of prothorax, coloration, and clothing, the members of the present genus seem to differ from those of the preceding one in being smaller, with their head rather less decidedly enlarged, and in having their limbs slenderer (their antennae being even still less thickened towards the apex), their wings (as in the ordinary Clerids) fully developed, their elytra longer, more parallel, and much less evidently punctate-striate, and their eyes less coarsely granulated.

The oral organs of Microclerus and Ateroclerus are similar, except that in the former the terminal joint of the maxillary palpi is a little more acuminate towards its apex; and they are almost identical, in both genera, with those of Thanasimus. Moreover, since the Microcleri are winged, they approach the Thanasimi even further still; but, apart from all minor features, the shape of their prothorax (a most significant item in the Cleridae) will at once characterize them. Indeed the structure of the latter is exactly the same as in the preceding genus—not being constricted behind (or triangularly-impressed on the fore disk) as in the Thanasimi and Cleri, but somewhat quadrate and simply rounded-off at the basal angles. In addition to this, however, the Microcleri are much smaller and more pilose than the Thanasimi; their elytra (which are testaceous, and variegated with blackish-brown markings) are relatively narrower, being no broader than the widest part of their prothorax—which is densely tuberculate on its posterior disk; and their limbs are proportionally somewhat longer and, especially as regards the antennae, slenderer.

If the preceding genus seems to have a good deal in common with Dozocolletus from southern Africa, the present one might perhaps (judging from the diagnosis) be affiliated with Derestenus from Mexico. At any rate the latter (which occupies the same position amongst the Cleridae as this one does) is the only group hitherto published with which, structurally, it can be compared—though I think (in the absence of a type) it is extremely improbable that it will be found to coincide with it. Thus (if we may trust the description) the antennæ
of Derestenus appear to be shorter and more robust than those of Microclerus, with their second articulation less abbreviated, and their terminal one no wider than the preceding two; the prothorax is stated to be tuberculose on its anterior (instead of posterior) disk; the legs are probably shorter; and the claws (in addition to their basal tooth) are said to be appendiculated.

116. Microclerus Dohrnii, n. sp.

*M.* piceo-vel rufo-brunneus, in elytris testaceo pictus, antennis (gracilimis), palpis pedibusque testaceis sed hinc inde nigro infuscatis, subnitidus, pube mollis demissâ fulva vestitus pilisque longissimis erectis plerumque nigrescentibus ubique adspersus; capite prothoraceque parece subtuberculato-punctulatis, illo parum magno sub-convexo, hoc transverso-subquadrate, intra angulos posticos (obtuse rotundatos) malleato-impresso, pone apicem transversim constricto, basi marginato, in disco postico nigrescentiore ac densius grossiusque tuberculato; elytris subovato-longatis (se. pone medium sensim latioribus), leviter, laxe et confuse punctato-striatis necon subtuberculato-vage rugosis, brunneo-testaceis, fasciis nigrescentibus (sed magis confusis ac magis confluentibus) ut in Apteroclero fusiformi ornatis.—Long. corp. lin. 2.

*Habitat* S. Antão; inter Euphorbias ad Sellada de Garça à cl. H. Dohrn, M.D., semel repertus.

In its just appreciably more punctate-striate, and somewhat less parallel, elytra (which, from being a little widened behind the middle, appear rather narrowed anteriorly), as well as in its slightly more developed head, and in the darker, or more fulvescent, hue of its decumbent under-pile (which causes its testaceous parts to seem less pallid), this insect might be supposed at first sight, and when compared with the following one, to occupy a sort of intermediate position between the latter and the *Apteroclerus fusiformis*—though a closer inspection will show that in all its structural details it belongs in reality to the same group as the *Microclerus euphorbiae*. Indeed we may expect that it will prove to be strictly the representative of that *S.* Vicente species in the neighbouring island of S. Antão—where a single example of it was met with, amongst Euphorbias, at the Sellada de Garça, by Dr. H. Dohrn (in commemoration of which I have consequently proposed for it the above trivial name).

117. Microclerus euphorbiae, n. sp.

*M.* precedenti similis, sed pube mollis demissâ sensim pallidior; elytris parallelis (nee postice subampliatis), etiam obsoletius subpunctato-striatis sed punctulis minutissimis evidentius irroratis, fasciis sub-
... nigroscintibus etiam magis fractis magisque confusis; prothorace in disco postico (nigro) densius grossiusque tuberculato; antennis vix brevieribus, vix minus gracilibus.—Long. corp. lin. $1\frac{3}{4}$.

Habitat S. Vicente; in summo ipso Montis Viridis inter Euphorbias lectus.

Like the Apteroclerus fusiformis, this insect resides at a high elevation amongst the Euphorbias of S. Vicente, having been taken by Mr. Gray and myself on the extreme summit of Monte Verde. Its small size, narrow outline, and parallel elytra (which are confusedly fasciated with dark-brown and testaceous markings, and, although a little wrinkled or uneven, very absolutely subpunctate-striate), combined with the exceedingly long and erect additional hairs with which it is studded, and the fact of its hinder prothoracic disk being dark and very closely covered with coarse tubercles, will sufficiently distinguish it*. It would seem to represent in these islands the Clerus Pauae of the Canarian archipelago, which is in like manner of Euphorbia-infesting habits; but the latter (although certainly not a true Clerus, as now restricted and understood) belongs to a somewhat different group (most nearly allied to our present one), in which the limbs are less elongate, the antennae more thickened towards their apex, the prothorax shorter and free from tubercles, and the elytra (like the head and prothorax) nearly black—the transverse fasciae being formed of decumbent cinereous pubescence, and not of testaceous markings. In their oral organs, however, the Cape Verde and Canarian species are almost identical; so perhaps they may represent but different Sections of one and the same genus.

Genus 79. Corynetes.


118. Corynetes rufipes.

Anobium rufipes, Thunb., Nov. Ins. Spec. i. 10 (1781).
Necrobia rufipes, Brullé, in Webb et Berth. (Col.) 60 (1838).
— —, Id., Col. Atl. 209 (1865).

Habitat S. Vicente, et S. Iago; in cadaveribus, præsertim juxta mare, congregans.

The European C. rufipes—which appears to have naturalized itself

* The stiff erect hairs with which (in addition to its under-clothing of paler, softer, and decumbent pubescence) the M. euphorbiiæ is everywhere beset are principally of a somewhat blackish hue; and these darkened ones seem to be so remarkably brittle, or easily removed, that, after cleaning my specimens lightly with a brush dipped in Benzine, I find that the erect setæ have almost entirely disappeared.
in nearly all parts of the civilized world, and which I have captured abundantly in the Canarian Group and on the opposite coast of Morocco—was taken by Mr. Gray and myself, out of dead animals, near Porto Grande in S. Vicente, and close to the Villa da Praia in S. Iago; but it does not happen to have been observed, as yet, in any of the other islands. We may be pretty sure, however, that it is generally distributed throughout the archipelago. From S. Vicente it has, also, been communicated by Mr. Miller.

**Fam. 29. PTINIDÆ.**

Genus 80. **MEZIUM.**


119. **Mezium sulcatum.**

*Ptinus sulcatus,* Fab., *Spec. Ins.* i. 73 (1781).


—— ——, *Id., Cat. Mad.* Col. 92 (1857).

—— ——, *Id., Cat. Can.* Col. 240 (1864).

—— ——, *Id., Col. Atl.* 214 (1865).

*Habitat* S. Vicente; ad Portum Grandem parce deprehensum.

Of the Mediterranean *M. sulcatum*—which seems to be truly indigenous in the Madeiran and Canarian Groups (particularly the latter, where it is quite universal)—I have seen hitherto only a few examples from the Cape Verdes. They were taken by myself at Porto Grande in S. Vicente, where perhaps therefore the species may have been naturalized accidentally from more northern latitudes. I think it more probable, however, that it will be found to be pretty generally distributed over the archipelago; for although the insect is one which is eminently liable to become introduced into most civilized countries through the medium of commerce, it has, nevertheless, more the appearance of being aboriginal in the various Atlantic islands than is usually the case with it elsewhere.

Genus 81. **MICROPTINUS**.


120. **Microptinus echinatus,** n. sp.

*M. niger,* setis elongatis nigris erectis ubique obsitus; oculis minutis, rotundatis; prothorace grosse et obtuse tuberculato squamisque

*For the reason which induced me to suppress the barbarous name of Nitpus for this group, and substitute Microptinus instead, vide p. 215 of my 'Col. Atlantidum.'
magnis demissis albidis hinc inde (sed præsertim versus latera) parce irrorato; elytris (interdum vix diluitioribus) convexis, subrotundatis, subnudatis, profunde punctatis, singulis in fasciâ postmedii arcuata, necnon sepius duabus obsoletissimis transversis (sc. mediâ et basali) plerumque vix observandis, albid squamosis; antennâ pedibusque pubescentibus, incrassatis, illis nigrescentibus 9-articulatis, his sepius piecescentioribus, tarsis (apice ipsissimo excepto) clarioribus.

Mas tarsis posticis 4-articulatis.—Long. corp. lin. vix 1-1\(\frac{3}{4}\).

Habitat S. Antão, et S. Vicente; inter quisquillas aridas, ab orâ maritimâ usque ad summós montes ascendens.

There is scarcely any Coleopterous insect hitherto detected in these islands which is more interesting geographically than this pilose and thoroughly indigenous Ptinid, or which would seem to establish a more intimate point of union with the Canarian fauna. After collecting, a few years ago, on a large scale, in Teneriffe, I was surprised to find, on after-examination, that a small species which appeared to be hardly separable from the Sphaericus albopictus of Madeira was distinct even generically by a numerical reduction not only in the joints of its antennæ but likewise in those of its posterior male feet; and it further appeared that examples of it had been received previously, from the same island, by Duval, who had described it as a new genus under the title of Nitpus. The subsequent researches of the Messrs. Crotch proved it to exist likewise in Gomera; but, still, it remains essentially Canarian, and one of the most characteristic forms. It is therefore somewhat significant that an insect so unmistakably aboriginal in the Cape Verde archipelago as the Ptinid now under consideration should present the same structural peculiarities as the Canarian one, and belong to precisely the same type. Specifically however it is abundantly removed from the Teneriffan and Gomeran M. gonospermi (with which, nevertheless, it agrees in its sculpture and markings),—being not only (on the average) larger and considerably blacker, but likewise everywhere beset with excessively elongate erect hairs (of which there is no trace whatsoever in its ally), whilst its antennæ and legs are very much thicker, darker, and more pubescent.

The M. echinatus is universal throughout S. Antão and S. Vicente, but it is a little remarkable that we did not meet with it in the more central and southern parts of the archipelago. In those two islands however it was taken by Mr. Gray and myself in many different localities, chiefly by sifting rather dry vegetable refuse; and in S. Antão it was found likewise by Dr. H. Dohrn. Although occurring
principally in the intermediate districts, it is independent of elevation; for in S. Vicente I captured it not only at the sea-level in Porto Grande, but equally at Madeirâlzinho, and on the extreme summit of Monte Verde.

Genus S.2. **SPHÆRICUS.**


121. *Sphæricus tuberculicollis*, n. sp.

*S. grosse albido squamosus, sed pilis carens; capite prothoraceque picco-nigris, hâc (subter squamis) dense, grosse sed obtuse tuberculato (tuberculis inter se argute determinatis); elytris rotundato-ovalibus, (subter squamis) brunneis, subunitidis, laxe subseriatim punctatis (punctis magnis, remotis, sed in serie dorsali obsolentibus), in fasciâ postmedia densius albido squamosis; antennis elongatis, nigro-piceis; pedibus rufo-ferrugineis, femoribus ad apicem fibiisque ad basin nigrescentibus.—Long. corp. lin. vix 3.  

*Habitat* S. Iago; inter plantas à Rev. R. T. Lowe collectas semel lectus.

I obtained a single example of this little *Sphæricus*, during our sojourn at S. Iago, from amongst some plants which were collected by the Rev. R. T. Lowe; and it approaches so closely, in its general aspect, to the *S. albopictus* from Madeira and the *S. simplex* from the Canaries that I am somewhat doubtful whether it ought not to be referred to one or the other of those nearly-allied species. Until, however, further material has been obtained, I think perhaps it will be safer to treat it as distinct; for it certainly possesses (when the scales are removed) peculiarities of sculpture which *if constant* would seem to be quite sufficient to establish its specific claims. Although agreeing better with the Canarian *S. simplex* in the totally undilated penultimate joint of its feet, nevertheless in the *tuberculose* sculpture of its prothorax it recedes from that insect (in which the prothorax is roughly, densely, and confusedly punctured) and is better associated with the Madeiran *albopictus*. But even in the latter the tubercles are much more irregular and confused than is the case in the Cape Verde species—where they are beautifully distinct, and (although obtuse) sharply defined. Moreover the *S. tuberculicollis* differs from both of its allies in its elytral punctures being considerably larger and more remote, rather more evidently disposed in longitudinal rows, and with the series *down the outer disk* of each elytron obsolete*.

* How far, in certain variable insects like the *Sphærici*, the *tuberculose* and *punctate* types of sculpture are *apt* to merge into each other may be open for future
Genus S3. **PIARUS.**


122. *Piarus Loweii,* n. sp.

*P.* squamoso-sericeus, sed setis erectis carens; capite prothoraceque nigro-piceis vel piceis et squamis cinereo-fulvis demissis parce irroratis, hoc grosse et densissime tuberculato-asperato; elytris convexis, ovalibus, subnitidis, leviter substriato-punctatis, squamis sericeis demissis fulvo-cinereis vestitis, sed in fasciâ magnâ dentatâ submediâ transversâ (interdum utrinque fractâ) piceo-nigrescentibus; antennis pedibusque elongatis, sat crassis, ferrugineis, sed minute fulvo-cinereo-sericeo-squamulosis.—*Long.* corp. lin 1 3/4–1 3/4.

*Habitat* Fogo; in montibus valde excelsis plurima specimina deprehendit Rev'dus R. T. Lowe, cujus in honorem speciem stabiliti.

Several examples of this noble Ptinid were captured by the Rev. R. T. Lowe at a very high elevation in Fogo—namely on the vast scoriaceous region, known as the Chão da Relva, at the base of the great volcanic cone. The particular spot in which Mr. Lowe met with them is called the Corral de Frederico, where there is a cave in which he was compelled to pass the night—with (chiefly) the goats for his companions; and it was whilst breakfasting, the following morning, in this upland cave, that specimen after specimen of the large and interesting *Piarus* now under consideration continued to fall into his milk. It would appear, consequently, as if the *P. Loweii*, like so many of the Canarian and Madeiran representatives of this immediate family, will be found to prefer the open basaltic caverns, and dry sheltered spots beneath overhanging rocks, to the more ordinary and exposed localities.

The large size (for a Ptinid) of the *P. Loweii*, combined with its total freedom from erect, additional hairs, its oval, silken elytra (which are densely clothed with sericeous, decumbent, fulvo-cinereous scales—excepting a large central blackish zigzag fascia, which is often broken, or interrupted, on either side), its roughly-sculptured prothorax (which is closely beset with coarse tubercles, and comparatively free from scale-like pubescence), and its elongate limbs, will quite prevent it consideration; and if it should hereafter be shown that their permanency is not to be depended upon, it is quite possible that the Madeiran *S. albopectus*, the Canarian *S. simplex*, and the Cape Verde *S. tuberculicollis* may prove to be geographical states of a single plastic form. On the other hand, however, it is far from improbable that not only the whole three of them are truly distinct from each other, but even that more than a single species may be concealed under what I have regarded as insular phases of the protean *S. albopectus* of the Madeiran archipelago.
from being confounded with anything else enumerated in this volume. I am glad of the opportunity to name it after its captor, whose late botanical researches in the Cape Verde archipelago are likely to produce a result inferior only to that which he has already accomplished for the Madeiran and Canarian Groups.

Fam. 30. ANOBIADÆ.

Genus 84. XYLETINUS.

123. Xyletinus ferrugineus.

X. oblongus, plus minus claré rufo-ferrugineus, nitidus, breviter flavocinereo sericeus, et ubique (oeulo fortissime armato) subtilissime punctulatus; prothorace brevi, convexo, subhunulato (postice valde rotundato, antice paululum subexovato-sinuato, angulis antecis acutissulis); elytris breviusculis, haud striatis; antennis pedibusque breviusculis, gracilibus, illis testaceis, articulo basilari et his rufo-testaceis; palporum maxillo artix\" (securiformi) ad apicem internum leviter excavato.—Long. corp. lin. 1.2–1.25.


Habitat S. Antão, S. Vicente, et S. Iago; præcipue inter quisquilias aridas, sed interdum etiam circa domos, degens.

Obs.—X. latitanatem canariensem primâ facie simulans, sed paulo minus pubescens, oculis sensim minoribus minusque prominentibus, prothorace subconvexiore, antice magis truncato (nullo modo producido, fere etiam subemarginato) angulis antecis acutioribus, elytris brevioribus, necnon antennis pedibusque brevioribus, illarum articulis intermedios vix magis transversis et triangularibus.

This rufo-ferrugineus Xyletinus may perhaps have been introduced accidentally into these islands, as it seems to have been at Ascension—where it was captured (in April 1860) by the late Mr. Bewicke. And if such is indeed the case, it may be an insect of a widely acquired range, and we must expect that it will be identified (sooner or later) with some species which has been long recognized. Be this however as it may, it occurs, in the Cape Verde archipelago, not only about houses, but likewise amongst dry vegetable refuse within the cultivated districts. At Tarrafal, in the extreme south of S. Antão, I shook it out of bundles of the dead leaves of sugar-canes. In S. Vicente we met with it plentifully amongst some dried plants which had been collected by Mr. Miller. And in S. Iago it was obtained by Mr. Gray near the Villa da Praia, as well as by myself at San Do-
mingos and Sta Catharina. It may be known by its usually clear ruf-ferruginous hue (though occasional specimens are of a dull reddish-brown) and finely sericeous, but rather shining, surface, by its elytra being totally unstriated, and by its limbs (of which the antennae, with the exception of their first articulation, are extremely pallid) being short and slender. The securiform last joint of its maxillary palpi is slightly scooped-out along its inner apical edge—a structure which is tolerably conspicuous in the division of the genus which was separated by Duval under the name of Metholecus, and which certainly includes three out of the four Xyletini which have been detected in the Canarian Group—if not indeed the whole of them, for this tendency to excavation is scarcely more than a trivial character which is more or less expressed in the different species.

Genus 85. NOTIOMIMUS.


124. Notiomimus lineatus, n. sp.

*N. oblongo-cylindricus, brunneus, pilis fulvo-cinereis demissis ubique sericatus, (subtersquamis) densissime granulatus; capitescutelloque paulo nigrescentioribus; elytris haud striatis, sed pilis sericeis in lineas circa 5 utrinque densius collectis; antennis pedibusque gracilibus, illis nigrescentibus, his infuscate testacaeis, tarsis elongatis.

—Long. corp. lin. 2.

Habitat S. Vicente; inter Euphorbias emortuas rarissimus.

I obtained a single specimen of this large Notiomimus from a dead Euphorbia-bush which was brought to me by the Rev. R. T. Lowe during our sojourn at S. Vicente; and a second was captured in the same island by Mr. Miller. It may be known by its cylindrical outline, and by its (brownish) surface being free from punctures, but closely granulate; and densely covered with a decumbent, silken, somewhat cinereous pubescence. Its head is rather darker than the rest of the body; its elytra are unstriated, but nevertheless with their sericeous pubescence gathered more thickly into longitudinal rows; and its limbs, particularly the legs, are slender and elongate. It is totally distinct from the three Canarian members of the genus—though in its unstriated elytra it would seem to make a slight approach to the *N. punctulatissimus*, with which however in other respects it entirely disagrees. In reality it is perhaps nearer to the holosericeus.

Genus 86. ANOBIUM.

Fabricius, Syst. Ent. 62 (1775).
125. Anobium paniceum.

—— ———, *Id.*, *Cat. Mad. Col.* 93 (1857).

*Habitat* S. Vicente, et S. Iago; circa domos atque in cultis, ex alienis introductum.

The almost cosmopolitan *A. paniceum*—which is so eminently liable to transportation, amongst farinaceous substances, throughout the civilized world, and which has established itself in the Madeiran and Canarian Groups—occurs sparingly, about houses and cultivated spots, in the Cape Verde archipelago. I have taken it at Porto Grande in S. Vicente, and in the Ribeira dos Orgãos in S. Iago—in which latter island it was also captured, near the Villa da Praia, by Mr. Gray. From S. Vicente it has likewise been communicated by Mr. Miller.

Fam. 31. BOSTRYCHIDÆ.

Genus 87. BOSTRYCHUS.


126. Bostrychus Grayanus, n. sp.

*B. elongato-cylindricus*, subopacus, nigro-piceus elytris fuscescentioribus, pilis brevibus fulvescentibus omnino demissis ubique (sed vix dense) tectus; oculis maximis, prominentibus; prothorace elytris vix angustiore, angulis posticis rectis, postice parce irregulariter punctato, antice scabroso et (præsertim utrinque) mucronibus maximis valde asperato (ad apicem mucronibus duobus porrectis etiam majoribus armato, atque inter mucrones emarginato); scutello sub-rotundato; elytris (ad basin undulato-sinuatis) profunde et sat dense punctatis punctulisque minutissimis irregulariter minutissimis intermediiis irroratis, postice leviter retusis necon per suturam (in parte retusâ) panaulum elevatis; antennis (10-artis, clavâ magnâ sed intus vix serrâ, reliquis longitudine subequali) rufo-testaceis; pedibus elongatis, gracilibus, rufo-piceis.—*Long. corp. lin. 24 3/4*.

*Habitat* S. Iago; sub cortice *Feci* cujusdam magnae indigenæ arido laxo à Dom. Gray in intermediiis semel deprehensus.

Apart from the general facies of this insect, the structure of its antennæ (the first and second joints of which are, if anything, a little shorter, when combined, than the five minute ones following, whilst the lax triarticulated club is about equal in length to the whole re-
remaining seven, and is but very slightly serrated internally) shows it to be a member of the same group as the European *B. capucinus*, and not of that (namely *Xylopertha*) to which the allied forms belong in Madeira and the Canaries—and in which the antennae are not only differently proportioned, but composed of nine joints only (instead of ten). These facts, combined with the short and perfectly decumbent fulvescent pile with which it is everywhere rather sparingly clothed, its darkish, posteriorly-squarish prothorax (which is, if anything, a trifle narrower than the elytra, and is most coarsely mucronated anteriorly with very prominent tuberculiform projections), its small roundish scutellum, its fulvescent elytra (which are but faintly retuse behind), and its elongated legs and feet, will sufficiently distinguish it. It appears to be one of the rarest of the Cape Verde Coleoptera; and the only example which I have seen was captured by Mr. Gray (after whom I have named the species) in the interior of S. Iago—namely, beneath the loosened bark of a gigantic native *Ficus*, which had recently been felled, in the Ribeira dos Orgãos.

Genus 88. **RHIZOPERTHA.**


127. **Rhizopertha bifoveolata.**

*R. cylindrica, subnitida, picea elytris paulo rufescensioribus, fere calva (se. pilis brevibus suberectis hinc inde parcissime obsita); prothorace elongato-subsemicirculari, postice dense et profunde punctato foveolisque, duabus rotundatis mediis impresso, antice scabroso et mucronibus (subareuatim dispositis) asperato; scutello transverso; elytris (ad basin in medio recte truncatis, sed ad humeros oblique sectis) profunde et dense subrugulosos-punctatis, postice subito rotundate desilientibus sed haud retusiis; antennis (10-artis, clavam magnam, intus serratam, reliquis longitudine subaequali) pedibusque rufe-piceis.—**Long. corp. lin. 13/.


*Ryzopertha ——, Id., Col. Atl. 232 (1865).*

**Habitat** S. Iago; in domo quadam ad Sanctam Catharinam semel capta.

The relative length of the joints (combined) which compose the three divisions of its antennae show the present insect to belong to the same Section of the *Bostrychidae* as the preceding one, and indeed thus far nearly to agree with it; nevertheless the first and second articulations of its clava are more serrated, or produced, internally; and this latter fact, added to its less asperated and different prothorax, its transverse scutellum, its apically-entire elytra, and its shorter feet
(the second joint of which is not more elongated than the following one), point to *Rhizopertha* as the only group (hitherto recognized) which is capable of receiving it. Nevertheless in its broader outline, more largely-developed prothorax, and unstriated (though densely punctured) elytra, it would seem at first sight to recede almost generically from the common *R. pusilla*.

A single example of the *R. bifoveolata* was taken by myself, in a house at St's Catharina, in the interior of S. Iago; and it is possible therefore that the species may have become established accidentally through the medium of some article of commerce. At least there would seem perhaps, à priori, to be a probability of this, from the mere fact that the insect is conspecific with one which was captured several years ago in Madeira, by Mr. M. Park, *out of a cask of flour* in the Funchal Custom-House—though, apart from this consideration, there is nothing about the (very remote) locality in which the example described above was found to lead me to suspect that the latter is anything but indigenous.

**Fam. 32. LYCTIDÆ.**

**Genus 89. LYCTUS.**

Fabricius, *Ent. Syst. i. ii. 502 (1792).*

§ 1. *Clavce articulis longitudine aequalibus.*

128. *Lyctus æqualis,* n. sp.

*L. subniger elytris (presertim postice) paulo fuscantioribus, subnitidus, pube fulvescente grossâ demissâ vestitus; prothorace crebre punctato, elongato-subquadrato (postice paululum angustato), angulis antecis subproductis, posticis argute subrectis; elytris subparallelis (postice sæpius vix subattenuatis), levins punctatis sed vix striatis; antennis pedibusque rufo-piceis.*

*Variet* (saltem immaturus) omnino plus minus ferrugineus.—*Long. corp. lim. 1½–1¾.*

*Habitat* S. Antão, et S. Iago; in intermedia inferioribusque, sub cortice laxo presertim *Fiei*, latens.

A truly indigenous little *Lyctus*, which seems to be widely (though very sparingly) distributed over the archipelago, and which I believe will be found to be attached mainly to a species of native *Ficus* (allied to, if not identical with, the *F. sycamorus*). I captured a single example of it in the Ribeira Fria, of S. Antão, and several others in S.
Iago—near the Villa da Praia (where it was taken also by Mr. Gray), as well as, beneath the bark of a felled Fig-tree, in the Orgãos ravine. It is variable, both in size and colour,—specimens which are not quite mature being often rufo-ferruginous. Nevertheless its normally darkish hue and coarsely fulvo-pubescent surface, combined with its prothorax being appreciably widened in front, its elytra (which are usually a trifle subattenuated behind) being punctured but hardly (if at all) striate, and the fact of the two joints of its antennal club being about equal in length, will suffice to distinguish it.

§ II. Clave art. 24o primo paululum longiore.

129. Lyctus jatrophiæ, n. sp.

L. subniger elytris rufo-ferrugineis, submittidus, pube fulvescente de-missà parce vestitus; oculis maximis; prothorace sat crebre punctato, elongato-subquadrato (postice haud angustato), angulis anticus subrotundatis, posticus subobtusis; elytris parallelis, obsolete punctato- striatis, in interstitialiis minutissime vago punctulatis; antennis pedibusque rufo-piceis.—Long. corp. lin. 1 ½.

Habitat S. Antão; in ramo quodam emortuo Jatropha curcas lectus.

In its rather large size, rufo-ferruginous, obsoletely punctate-striated elytra, and general aspect this species bears a strong primâ facie resemblance to the European L. brunneus (which occurs also in the Madeiran and Canarian Groups); but its eyes are a little larger and not quite so prominent, the apical joint of its antennæ is just appreciably longer, and its prothorax is straighter at the sides, with the anterior angles more rounded-off. Nevertheless, since the above diagnosis has been compiled from only a single example, I think perhaps that further material should be obtained before it can be pronounced for certain that the latter is no phasis, or accidental variety, of the brunneus. My belief is that it will be found to be undoubtedly distinct, and in all probability attached for the most part (if not exclusively) to the Jatropha curcas, L. (or "Physic-Nut")—within a decayed branch of which I found its remains, in considerable abundance, in the Ribeira da Babosa, of S. Antão.

§ III. Clave art. 24o elongato (lineari, apicem versus vix angustato), primo molto longiore.

130. Lyctus obsitus, n. sp.

L. piceus elytris rufo-piceis, submittidus, setis crassis rigidis erectis squamiformibus cinereis parce obsitus; oculis valde prominentibus;
Tomicidæ. 113

prothorace crebre punctato (punctis subrugulosis et sat magnis, sed haud profunidis), postice paululum angastato, angulis anticis obtuse subampliatis, posticis ipsissimis plus minus prominulis vel acute productis; elytris parallelis, distincte striato-punctatis, in interstitiis depressis impunctatis, sed in striis alternis conspicue seriatiim setosis; antennis (longiusculis) pedibusque rufo-piceis.—Long. corp. lin. 1½.

Habitat S. Iago: sub cortice Fici emortuo parce deprehensus.

The comparatively elongate and straightened second joint of the antennal club of this Lyctus would suffice, even alone, to separate it entirely from the preceding two species; nevertheless it is still further distinguished by the extremely thick, erect, and whitish sete with which it is studded, and which on the elytra are longitudinally disposed down the alternate (sharply-punctured) striae. Its prothorax, too, although on the Lyctus-type, is remarkable for having its extreme hinder angles prominent, or (as it were) minutely spiniform—though this structure, as it is comparatively indistinct in one of the three examples now before me, may possibly be (to some extent) sexual. Its elytral interstices are flattened, subglabrous, and nearly free from punctures; and its antennæ, owing to the increased length of their terminal articulation, are rather less abbreviated than in the ordinary Lycti.

Three specimens of the L. obsitus were captured by myself in the interior of S. Iago, under the dead bark of a large Ficus in the Ribeira dos Orgãos.

Fam. 33. TOMICIDÆ.

Genus 90. TOMICUS.

Latreille, Hist. Nat. des Ins. iii. 203 (1802).

131. Tomicus perforans.

T. cylindricus, rufo-ferrugineus (postice vix obscurior), nitidissimus pilisque erectis parcissime irroratus; prothorace elongato, antice amplo et obtuse rotundato mucronibusque dense asperato, in medio subnodoso-convexo, postice minute et parce punctulato: elytris leviter et subirregulariter seriatiim punctatis necnon in interstitiis punctis minoribus remotis parcissime longitudinaliter notatis, postice paululum oblique truncatis (aut obsoletissime retusis) mucronibusque perpaucis granuliformibus armatis; antennis pedibusque testaceis.—Long. corp. lin. 1½.

Tomicus perforans, Woll., Cat. Mad. Col. 96 (1857).
—— ———, Id., Col. Atl. 237 (1865).

Habitat S. Nicolao; in ramo emortuo Jatropha curcas, L., à Dom. Gray semel repertus.

The single example, described above, which was taken by Mr. Gray out of the dead stem of a Jatropha curcas in S. Nicolao, appears to me in every respect similar to the one from which I drew out the original diagnosis of my T. perforans, and which was detected in a wine-store at Madeira—feeding on a cork used as abung for a cask. I stated recently, in the ‘Coleoptera Atlantidum,’ that, if an old specimen in my collection, which I obtained from the late Mr. Melly as Brazilian, could be relied upon (as regards its identification), the T. perforans would be found to be conspecific with the Bostrichus ferruginosus of Fabricius, recorded by the latter from South America; whilst the singularity of its habitat in Madeira, and the possibility of its having been also introduced (perhaps along with plants of the Jatropha) into the Cape Verde archipelago, would not tend to render this the less likely. The principal doubt in my mind is, as to whether the following Tomicus (which I have treated as distinct) is more than the other sex of it; for if that should be the case, there would be more reason to suspect that the species is at any rate truly indigenous in these islands.

In its general facies, largely-developed elongate prothorax, rufo-ferruginous hue, and highly-polished surface, the T. perforans agrees with the trypanaoides; but it differs from the latter in its elytra being much less retuse, or obliquely lopped-off behind (where also the few tuberculiform asperities with which it is studded are considerably smaller), and in having their punctures more irregularly disposed in longitudinal rows (rather than in striae), whilst their interstices (instead of being nearly impunctate) have a few small and distant punctures conspicuously arranged down each.

132. Tomicus trypanaoides, n. sp.

T. precedentii affinis, sed (nisi fallor) vix ejus sexus masculus; differt praeipue elytris alter sculpturatis—sc. magis regulariter substriato—(nee subconfuse seriatiim) punctatis, in intersitiis fere impunctatis, necon postice multo evidentius retusis mucronibusque majoribus (presertim singulis medii acutiusculis, in elytris singulis positis) armatis.—Long. corp. lin. vix 1 ¾.

Habitat S. Iago, et Fogo; sub cortice arborum, necon etiam in formicarum nidis, rarissimus.

As just stated. I feel a little doubtful whether this Tomicus is
more than the male of the preceding one; but its few diagnostic characters (even if small) are so conspicuous that I do not think it would be safe, without some kind of evidence, to refer it to that species. We captured it both in S. Iago and Fogo, all our examples being precisely similar; and it would be strange if only one sex should be represented from those two islands, and the single individual found by Mr. Gray in S. Nicolao should belong to the other. Still, although unlikely, I am fully aware that this is possible; and consequently it is not without some hesitation, that I have thought it better to treat the two as distinct. The _T. trypanoeoides_ has all the appearance of being really indigenous in this archipelago; so that, if it should prove ultimately to be conspecific with the _perforans_, it follows that the latter will have a greater claim to be regarded as aboriginal, not to mention the wider range which it would thus have been ascertained to possess.

The _T. trypanoeoides_ was taken by Mr. Gray and myself near the Villa da Praia in S. Iago—adhering to the underside of the trunk of a _Ficus_, which had been recently felled, in the Palm-grove adjoining the eastern outskirts of the town; and I subsequently met with it (beneath the bark of, I believe, a Tamarind-tree), about midway between S. Filippe and the Monte Nucho in Fogo. It would appear also to associate itself occasionally with Ants—in the company of which some of our S. Iago specimens were captured most unmistakably; indeed one was actually stolen by Mr. Gray from an ant, which was carrying it away in its mouth.

If the characters to which I have called attention in the diagnosis are more than sexual ones, there can be no doubt that the _T. trypanoeoides_ is distinct from the _perforans_; though agreeing with the latter in so many of its external features. Yet its peculiarities (so far as I can perceive) are merely in the elytra—which are not only more retuse, or obliquely-truncated, behind, and armed in that particular region with coarser tuberculiform asperities (one of which, in the centre of each elytron, is comparatively acute and prominent), but with their punctures more regularly arranged (not merely in rows, but in faintly-impressed striae), and with their interstices nearly impunctate. Whether the species be a trifle larger than its ally I am unable to say, having of the _perforans_ but a solitary example from which to judge.

Genus 91. **CRYPHALUS.**

Erichson, in _Wieg. Archiv_, ii. 61 (1836).
133. Cryphalus mucronifer, n. sp.

C. cylindricus, niger vel piceo-niger, subnexitidis setuliscque crassis erectis subcinereis adspersus; prothorace irregulariter punctata-rugulosus, in disco antico convexo atque sepius paululum dilutio, nee ex ibidem et apice mucronibus porrectis valde asperato; elytris substrato-punctatis, in interstitiis minute et parce uniserialis punctatu ac longitudinaliter cinereo-setosis; antennis pedibusque testaceis, illarum clava paulo obscuriore.

Habitat S. Antão, S. Vicente, S. Iago, et Fogo; praecipe in ramis truncisque emortuis Jatrophi curcas degens, hinc inde vulgaris.

The 4-jointed funiculus, distinctly pentamericous feet, and externally-spinulose tibiae of this little wood-borer show it to be a true Cryphalus, with which indeed in its general facies it also agrees. Its nearly black hue, and the thick, erect, whitish setae with which it is beset, combined with the exceedingly coarse and prominent asperities on the anterior region of its prothorax (which is usually a little diluted in hue on the fore disk), and its rather conspicuously punctate-striate elytra, will suffice to characterize it. It is widely distributed over the archipelago (occurring at most elevations), where we may expect that it will be found to be universal. It seems to be attached mainly (perhaps indeed altogether) to the Jatrophi curcas, or Physic-Nut (called by the inhabitants "Purgueira"), in the decayed stems of which I have often observed it in profusion. In such situations I met with it in the Ribeira Fria, the Ribeira da Babosa, and at Tarrafal, in S. Antão,—at Madeiral, in S. Vicente,—and near the Villa da Praia, in S. Iago. In S. Vicente and S. Iago it was found likewise by Mr. Gray, who also obtained an example of it (near the Porto da Luz) in Fogo.

134. Cryphalus aspericolis.

C. precedenti affinis, sed certe distinctus; differt praecipe corpore minore, angustiore, atque etiam magis cylindrico, puncturá (oculo fortiissime armato) sensim minore ac leviore, elytrisque minus evidente striatis.—Long. corp. lin. \( \frac{2}{3} \) vix 1.

Habitat S. Antão, S. Vicente; praecipe inter ramulos plantarum emortuos fractos humi jacentes occurrens.

Although an occasional comparatively large example of this diminutive Cryphalus and the smaller ones of the C. mucronifer are apt
at first sight to appear somewhat similar, I am nevertheless quite satisfied that the two species are entirely distinct; and indeed, apart from their specific characters, they are different in their habits—the aspericollis having no connexion (so far as I am aware) with the Jatropha euceras, but occurring amongst the dead wood and broken-up sticks of various shrubs and plants. I obtained it abundantly (by sifting) at Madeiral and Madeiralzinho in S. Vicente (where it was found more sparingly by Mr. Gray), as well as in the Ribeira Fria of S. Antão. It occurs in similar situations both at the Madeiras and Canaries; and it was met with by the late Mr. Bewicke even at Ascension, a fact which would seem to imply (if indeed Mr. Bewicke's example had not been accidentally introduced from some one of these various, more northern, islands) that its geographical range may perhaps be a tolerably wide one.

The C. aspericollis may be known from the mucronifer by its smaller size, narrower and even still more cylindric body, and by the punctuation of its elytra (which are less distinctly striated) being both finer and lighter. It is one of the most minute wood-borers with which I am acquainted; for although scarcely (if at all) shorter than the Euphorbia-infesting Liparthrum Lowei, it is nevertheless considerably narrower than that insect.

Genus 92. APHANARTHROM.

Wollaston, Ins. Mad. 292 (1854).

135. Aphanarthrum hesperidum, n. sp.

A. cylindricum, nigrum elytris testaceo pictis, submitidum, pilis suberectis mollibus dense vestitum; prothorace alutaceo, (in linea media excepta) minute et dense punctato, apice inarmato et obtuse rotundato, necon saxpius ibidem dilutio; elytris crebre subseriati punctatis, saturate testaceis, in fascis duabus (una sc. magna centrali in medio duplici vel profunde dentata, et altera obliqua postica) plus minus fractis, vel etiam subobsoletis, nigro ornatis; antennis pedibusque saturate testaceis.—Long. corp. hinc circa \( \frac{7}{8} \).

Habitat S. Antão, S. Vicente, S. Iago, Fogo, et Brava; in Euphorbiis emortuis, hinc inde vulgatissimum.

Obs.—Species A. piscatorio Maderensi et Canariensi valde affinis et forsan eius varietas major, geographica; differt precipue corpore sensim majore ac magis cylindrico, prothorace antice subobtusius rotundato (aut minus acuminato) elytrorumque fascia postica (ut in A. affinis) magis distincta et tenuiore (nec versus apicem suffusā).
An *Aphanarthrum* which we may be pretty sure is universal throughout the archipelago, occurring wherever the common *Euphorbia Tuckeyana* (called "Tortaolho" by the inhabitants) is to be found,—within the rotten stems, and branches, of which it often teems. I captured it in the Ribeira da Babosa in S. Antão, on the hills beyond Porto Grande in S. Vicente (where it was taken likewise by Mr. Gray), above Sª Catharina in the interior of S. Iago, at the Monte Nucho in Fogo, and near the Povoação in Brava. The *Euphorbia* itself however is becoming scarce in some of the islands and districts, being much used for the purposes of dyeing; but wherever it remains, these little wood-borers are almost certain to be met with—though, I think, they are neither so general nor so abundant as are many of the species in the Canarian Group.

The *A. hesperidum* is so closely allied to the Madeiran and Canarian *A. piscatorium* that I cannot feel altogether satisfied that it is more than a rather large, and slightly altered, state of that species peculiar to the Cape Verde archipelago; nevertheless, since it retains its characteristics (such as they are) throughout the whole five islands in which it has been observed, it is difficult to regard it as a mere local phasis of the latter, and therefore I have thought it safer to treat it as distinct. It differs from the *piscatorium* in being uniformly a little larger, with its elytra a trifle straighter or more cylindric; in its prothorax being rather more obtusely rounded, or less acuminate, in front; and in its posterior elytral fascia being narrower and more sharply expressed, having little or no tendency to be suffused behind into the apex. Nevertheless in its densely-punctured elytra and thickly-pubescent surface it agrees with that species. In size, outline, and colour it has perhaps, at first sight, more in common with the *A. affîne* (found in the two eastern Canarian islands); nevertheless the somewhat larger punctules of its prothorax, and the smaller and denser ones of its elytra, which are much less evidently disposed in longitudinal rows, combined with its more thickly pilose surface—not to mention its usually less-pallid (or yellower) elytra, which have their black fasciae, on the average, less sharply defined—will quite distinguish it from that species.

Genus 93. **LIPARTHNUM.**


136. *Liparthrum Loweanum*, n. sp.

*L. minutum*, breviter cylindricum, fusco-nigrum (rarius omnino
nigrum) in elytris sæpius subdilutius, setulis brevisbus crassis suberectis cinereis (in elytris longitudinaliter) vestitum; prothorace parce ruguloso-punctato, antice inarmato, postice subsinuato; elytris striato-punctatis (punctis sat magnis); antennis pedibusque piceo-testaceis.—Long. corp. lin. \( \frac{1}{2}-\frac{3}{4} \).

*Habitat* S. Antão, S. Vicente, S. Iago, et Fogo; in ramulis *Euphorbia* emortuis aridis, hinc inde vulgare.

This very minute wood-borer is attached to the *Euphorbia Tuckeyana* in the Cape Verde archipelago, just as the nearly-allied *L. Lowei* is to the Euphorbias of the Canarian Group. We may expect that it will be found wherever its food-plant is still left, though from its diminutive size it is very liable to escape observation. I captured it at Tabouga, and in the Ribeira da Babosa, of S. Antão,—on the hills near Porto Grande, in S. Vicente (where it was taken likewise by Mr. Gray),—on the mountains above Sª Catharina, in S. Iago,—and at the Monte Nucho, in Fogo. Its extremely small bulk, abbreviated outline, and uniformly dark, brownish-black (or often blackish-brown) hue, combined with the short, robust, suberect, whitish seta with which it is beset (those on the elytra being arranged in longitudinal rows), the large and well-defined punctures of its striae, and the fact of its prothorax being free from all projections or asperities, will sufficiently distinguish it. Although descending to as small a stature as the *L. Lowei*, some of the specimens are nevertheless distinctly larger (though scarcely so large as those of the *inarmatum*); its colour is frequently (though not always) a trifle browner, or less black; its legs, especially, are of a paler hue; its sculpture is altogether rather coarser; and its prothorax seems totally free from even the rudiments of additional pustules on its foredisk. From the *inarmatum* it principally differs in being (on the average) a trifle smaller, in its prothorax being more deeply punctured, and in wanting the additional elongate setæ which are so conspicuous on the apical region of that species.

**Fam. 34. CURCULIONIDÆ.**

(Subfam. COSSONIDÆS.)

*Genus* 94. **RHYNCOLOUS.**


137. **Rhyncolus euphorbiarum**, n. sp.

*R.* subcyllndrico-elongatus, angustus, niger, nitidus, calvus; capite prothoraceque parce sed regulariter et argute punctatis (punctis
in illo sensim minoribus), rostro crasso, subtriangulari, leviter et subinterrupte canaliculato, oculis parvis et valde demissis; sentello transverso; elytris parallelis, sat profunde striato-punctatis, in interstititis minute et parce sed argute uniseriatiim punctulatis; antenna (pone apicem rostri insertis) rufo-ferrugineis; pedibus rufo-piceis, tarsis clarioribus, art. 3° simplici (nec dilatate bilobo). Var. (immaturus) piceus vel rufo-piceus.—Long. corp. lin. 1. vix 2.

Habitat S. Antão; in Euphorbiæ emortuis, rarissimus.

In its thickened, subtriangular rostrum and linear outline the curious insect described above is better referred to Rhynelculus than to Phleophagus; nevertheless in some respects (as the unexpanded, or simple, third joint of its feet) it differs from both of them. I scarcely think however that there is sufficient peculiarity about it to warrant the establishment of a separate genus for its reception. Its narrow, parallel body and deep-black hue (when mature), combined with its shining surface, small and depressed eyes, transverse scutellum, and the punctures of its prothorax being neither very large nor very dense, whilst its elytra are rather sharply striate-punctate, with a row of very small and distant (but well-defined) punctules down each interstice, will prevent its being confounded with anything else which concerns us in this volume.

The R. euphorbiarum appears to be exceedingly rare and of Euphorbia-infesting habits, the few specimens which I have seen (five in number) having been captured by myself in the interior of S. Antão. One of them I obtained, by sifting, in the Ribeira Fria; and the remaining four I took out of a decayed stem of the Euphorbia Tuckeyana in the Ribeira da Babosa.

Genus 95. Phleophagus.


138. Phleophagus obesus, n. sp.

P. niger, nitidus, calvus; rostro lineari, sat dense et sat minute punctato; prothorace convexo, valde profunde denseque punctato (punctis magnis), ad latera rotundato; sentello obsoleto; elytris (interdum obsoletissime subæneo tinctis) subellipticis, antice et postice subattenuatis, leviter substriato-punctatis (punctis parvis), necon in interstititis punctulis minutis parce et vage irorratis, paululum transversim rugulosis, in regione scutellari plus minus concavo- impressis; antenna pieco-ferrugineis; pedibus piceis, tarsis clarioribus.

Var. 2. Paulo minor, prothorace etiam densius punctato, elytris vix
minus ellipticis, in regione seutellari minus evidenter impressis. —Long. corp. lin. 2-2¼ (var. β 1⅔).

Habitat S. Vicente; sub quisquiliis aridis in summo ipso Montis Viridis captus, forsan caules plantarum (an Euphorbiarum?) destruens. Varietatem β in regione minus elevata (ad Madeiralzinho), inter quisquilias, cepi.

Obs.—Species P. caulium Canariensi affinis, sed major, elytris convexioribus, magis ellipticis, minus atris (sc. saepius obsoletissime, vix perspicue, submetallico tinctis), ac multo levius striato-punctatis (punctis minoribus striisque subobsoletis).

A black Plheophagus (the elytra of which, however, have sometimes a just appreciable submetallic tinge) which may be known by its prothorax being most deeply and coarsely punctured, whilst its elytra (which are rather elliptic, or a good deal drawn-in both before and behind) are very lightly striate-punctate—the punctures being comparatively small, and the striae obscure. Its scutellum is obsolete, and the seutellary region of its elytra is a good deal impressed (or concave). It is very near to the P. caulium, found in the eastern parts of the Canarian Group, but is larger, with its elytra more elliptical and convex, less intensely black, and very much more lightly and finely sculptured.

The P. obsculus was taken by Mr. Gray and myself on the extreme summit of Monte Verde, in S. Vicente—by shaking the vegetable refuse (composed principally of the stalks of Indian corn) which had been cleared off from cultivated spots, and collected into heaps. I have no doubt, therefore, that our examples were from the stems of some of the various plants thus accumulated—though, since the entire district abounds with the Euphorbia Tuckeyana, it is far from unlikely (considering the close affinity of the species with the Euphorbia—infesting P. caulium of the Canarian archipelago) that they may have been attached in reality to that viscous shrub. I met with several specimens at a much lower altitude (namely at Madeiralzinho, in the same island) which differ a little from the Monte Verde ones, though not sufficiently so to warrant the suspicion that they are more than a mere state—perhaps indicative of the regions which are less elevated. They represent the “var. β” above enunciated, and are rather smaller than what I have regarded as the type, with their prothorax (if possible) even still more densely punctured, and with their elytra a trifle less elliptic, and not quite so concave (or impressed) behind the place of the scutellum.
Genus 96. PENTATEMNUS.


139. *Pentatemnus affinis*, n. sp.

*P. angustulo-ellipticus*, piceus vel piceo-ferrugineus, subnitus pilis-que longis mollibus (plerumque suberectis) cinereis parce vestitus; oculis minutis, demissis, fere obsoletis; prothorace subconico, sat profunde parceque punctato; elytris transversim rugulosis et vix longitudinaliter subasperato-imbricatis; antennis brevibus. *Occurrere* pilis plus minus attritis,—interdum subcalvus.—Long. corp. lin. 1½—1⅓.

*Habitat* S. Vicente; sub quisquiliis detritisque in salinis arenosis juxta mare lectus.

*Obs.—* *P. arenarius* Canariensi valde affinis ac forsan ejus status geographicus; vix minor, prothoraces punctis subminoribus, elytrisque aliter sculpturatis—sc. minus rugosis (vix longitudinaliter subasperato-imbricatis sed punctorum seriebus fere carentibus).

There is scarcely any Coleopterous insect hitherto observed in these islands which is more interesting locally than the present one, or which would tend to establish a more intimate connexion with the fauna of the Canaries; for it is so closely allied to the *P. arenarius*, detected by myself in the eastern parts of that archipelago, that I am by no means satisfied that it is more than a permanent state of the latter peculiar to the Cape Verdes. But whether this be the case or not, it is so near to that insect that it is scarcely possible to regard it otherwise than as a member of all events the same geographical province. I took it, in tolerable abundance, beneath the small lines of triturated vegetable refuse which had been deposited by occasional overflows of the sea, on the low sandy flat immediately behind the sea-beach in S. Vicente—about a mile to the south of Porto Grande. There can be no question that the specimens were washed into the situation in which I obtained them, along with the fragments of dead, broken-up sticks which the water had carried from the base of the neighbouring hillocks of loose drifted sand, and on which are found much the same kind of shrubby plants as those which stud the sandhills in Fuerteventura and Lanzarote. One of the principal of these is the *Zygophyllum Fontanesii*; and it was around the roots of that particular species (in the Canarian Group) that I captured the greater number of my *P. arenarius*; so that I have little doubt that the S. Vicente examples of the *affinis* were floated into the position in which I met with them from the neighbouring tufts of *Zygophyllum*—a sup-
position which the fact of at least half of them being dead and mutilated would seem to support.

Whether the slight differences alluded to in my diagnosis are specific ones I will not undertake to pronounce, more particularly since I consider it questionable how far the *rugose* and *punctate* types of sculpture are (in certain Coleoptera) liable to blend into each other. But, so far as I can perceive, the main point in which the Cape Verde insect differs from the Canarian one is in its elytra being apparently free (or *very* nearly so) from the longitudinal series of punctures which are always conspicuous (under the microscope) in the latter, and at the same time also *less roughened* with asperated points. In minor respects, the *affinis* has its prothorax a trifle less deeply punctured; and it seems moreover to descend to a somewhat smaller size—neither of which facts, however, are of much importance.

**Genus 97. MESITES.**


140. *Mesites Hesperus*, n. sp.


Habitat S. Antão, et S. Vicente; *Euphorbias* emortuas destruens.

A *Mesites* which evidently represents in these islands the *M. fusiformis* of the Canarian archipelago and the Madeiran *M. euphorbice*, though much more allied to the former than the latter. Indeed I am far from satisfied that it is more, in reality, than a permanent geographical state of the *fusiformis*—from which it differs, merely, in its elytra being more parallel (or less attenuated behind), with their interstices more rugulose (transversely) and a trifle more distinctly punctulated, and in its prothorax, at any rate of the females, being somewhat more deeply and evenly punctured (the lateral punctures not being much coarser, even in that sex. than the discal ones). Although in its habits equally
representative of the Madeiran *M. euphorbica*, it and that species nevertheless fall into different Sections of the genus; for not only does it recede from the latter in its much darker hue, and more shining, less deeply punctured, *totally* unpubescent surface, but likewise in its elytra (which are more coarsely crenate-striate, and have their interstices considerably less rugulose) being appreciably less parallel (or with a slight tendency to be narrowed behind), in its legs being more robust, with their third tarsal joint less decidedly bilobed, and with their femora in the male obtusely subdentate internally, and in the antennae of its females being implanted a little further from the extreme base of the rostrum.

The *M. Hesperus* will most probably be found to be universal throughout the archipelago, occurring almost wherever there are plants of the *Euphorbia Tuckeyana* for it to subsist upon; nevertheless hitherto it is only in S. Antão and S. Vicente that it happens to have been detected. In the former of those islands I met with it abundantly (in a rotten *Euphorbia*-stem) in the Ribeira da Babosa, and in the latter at Madeiralzinho and on Monte Verde—in which last-mentioned locality it was captured also by Mr. Gray. Like most of the *Mesites*, it is extremely variable in stature.

(Subfam. RHYNCHOPHORIDES.)

Genus 98. **SITOPHILUS**.


141. Sitophilus granarius.

*Curculio granarius*, Linn., *Fam. Suec.* 587 (1761).

——, *Id.*, *Cat. Mad.* Col. 104 (1857).
——, *Id.*, *Cat. Can.* Col. 279 (1864).
——, *Id.*, *Col. Atl.* 264 (1865).

*Habitat* S. Vicente; in granariis captus, ex Europā in insulam forsan invectus.

A few specimens of the common European *S. granarius* were taken by Mr. Gray and myself in S. Vicente, crawling on the outer walls of Mr. Miller’s storehouse at Porto Grande. It has, of course, no real connexion with the Cape Verde Coleoptera—having clearly been introduced, along with corn and other articles of commerce, from more northern latitudes; nevertheless, since it has been admitted into the fauna of most countries on similar evidence, and I long ago included it in that both of the Madeiran and Canarian Groups, I think we ought not to refuse it a place in the present volume.
142. *Sitophilus oryzae.*

Curculio oryzae, *Linn., Cent. Ins. 12* (1763).  
———, *Id., Col. Atl. 265* (1865).

Habitat S. Antão, S. Vicente, S. Iago, Fogo, et Brava; circa domos (praesertim in frumentariis) et in cultis, ex alienis introductus. In oppidulis praedominat, qua muros lente ascendere seepius videatur.

This spotted and almost cosmopolitan *Sitophilus* has established itself in the Cape Verde archipelago, much as it has at the Madeiras and Canaries; but it is a mere introduction through the medium of commerce. I have taken it in S. Antão, S. Vicente, S. Iago, Fogo, and Brava,—in the first of which it was captured also by Dr. H. Dohrn, and in S. Antão, S. Vicente, and S. Iago by Mr. Gray.

(Subfam. CIONIDES.)

Genus 99. **NANOPHYSES.**


143. *Nanophyes longipes,* n. sp.

*N. ellipticus,* convexus, niger, nitidus, fere impunctatus sed pilis robustis demissis cinereis vestitus; rostro elongato, lineari, angusto, subarcuato, (apice leviore excepto) sulcato-striato, oculis magnis, subapproximatis; prothorace conico; elytris obovatis basi truncatis, profunde striatis; antenna (gracilibus, mox pone apicem rostri insertis) pedibusque longissimis, illarum scopo testaceo, clava* (3-art*) elongata, laxa; horum coxis testaceis, femoribus subtus 3-spinulosis (spinulis duabus internis minutissimis, externâ elongata subcurvata angustâ acutissimâ), tarsis longissimis, art*sa 1*mo et ult*mo praecipue elongatis.—Long. corp. lin. 1 ½.

Habitat S. Iago; inter plantas in aquosis intermediis deprehensus.

This large and concolorous *Nanophyes*—which is black (with the exception of the testaceos scape and coxae), but covered with a coarse,

* I believe that Duval was perfectly correct as regards the antennæ of *Nanophyes,* and that the two joints which are usually looked upon as forming the base of the club are in reality no more than enlarged ones of the funiculus—which consequently, as in the majority of the Curculionidae, is 7- (instead of only 5-) articulate. In some of the species indeed these supposed "claval" articulations are so far reduced in size as even to appear scarcely larger than the terminal ones often are, of *funiculi;* whilst the fact that the *true clava* is sometimes obscurely annulated shows that it alone constitutes the actual club, as being made up of two or three other joints which are soldered closely together.
decumbent, cinereous pubescence—differs from the ordinary members of the genus in its limbs being greatly elongated (a fact which is especially observable as regards the tarsi, the length of their first and terminal joints being far beyond what is normal), and in its antennae being inserted almost at the apex of its (slender and sulcate) rostrum. There can be no question however that it is a true Nanophyes—its external contour and structure, added to the peculiar spinules on the inner edge of its femora, and the modifications of its antennae, leaving no room for doubt concerning its affinities. In its rather large size, and concolorous, unfasciated surface, it bears a strong primâ facie resemblance to the European N. siculus, though in all its other, and most important, details it recedes entirely from that species.

The N. longipes is extremely rare, the few examples which I have seen having been taken by myself in the interior of S. Iago—namely, at San Domingos and in the Ribeira dos Orgãos. They were all of them captured by brushing the rank vegetation in marshy spots, adjoining their respective streams; but to what particular plant they were attached I did not succeed in ascertaining.

(Subfam. RHINOMACERIDES.)

Genus 100. AULETES.
Schönherr, Curr. Disp. Meth. 46 (1826).

144. Auletes euphorbiae, n. sp.  
A. elongato-ovatus, pube molli cinerâ (in elytris erectâ elongatâ) dense vestitus; capite nigro, sat profunde punctato, rostro gracili elongato vix picescentiore et minutius punctulato; prothorace angustulo, subconico, ad latera pone medium paulo rotundato, dense punctato, testaceo sed utrinque et super discum plus minus nigrescente; elytris testaceis, per suturam nigrescentioribus, profunde, rugulose, parciis et vix seriatis punctatis (punctis magnis); antennis pedibusque elongatis, illis gracilibus picescentibus (ad apicem fere nigris), his infuscate testaceis, interdum in femoribus (rarius in tibiis, rarissime in tarsis) obscuratis.—Long. corp. lin. 1¾–2½.

Habitat S. Antão, S. Vicente, S. Iago, Fogo, et Brava; ad flores foliaque Euphorbia Tuckeyanae, late diffusus.

This fine Auletes is rather larger (on the average) than any of the Canarian and Madeiran species hitherto detected; its rostrum is a little longer, as well as somewhat more shining and more finely punc-
tured; and its limbs are altogether more elongate. This last fact is very apparent as regards the feet, which also have their third joint very broadly bilobed. Its pubescence likewise is longer and denser, and is on the elytra much more erect; and its entire colour is considerably darker—being normally of much the same hue as the darkest aberration of the *A. maderensis*. In the shape of its posteriorly-rounded prothorax it is more on the pattern of the *maderensis* and *anceps* than of the *cylindricollis*. Like most of the exponents of this genus, it is exceedingly variable in hue; but typically its head, rostrum, and antennae seem to vary from piceous into nearly black, whilst its prothorax is testaceous, but so largely infuscated at the sides and across the disk as to appear (on the whole) almost dark, and its elytra are uniformly pale except along the suture—which is conspicuously obscured. The legs are either altogether testaceous or clouded (more or less) in most of their parts, especially however the femora.

The *A. euphorbiae*, as its name implies, is eminently of *Euphorbia*-infesting habits—though, unlike either the wood-boring Coleoptera or those which reside beneath merely putrid bark, it is of course only on the flowers and foliage of those viscous shrubs that (in its imago-state) it is to be found; but in such situations it probably exists, wherever the *E. Tuckeyana* still remains, throughout the archipelago. It was taken by Dr. H. Dohrn (at the Barro de Ferro) in the north of S. Antão, by Mr. Gray and myself on the top of Monte Verde in S. Vicente, by myself on the hills above S'ta Catharina in the interior of S. Iago, as well as at the Monte Nucho in Fogo, and by Mr. Gray above the Povoação in Brava—in every instance on bushes of the *Euphorbia*.

(Subfam. APIONIDES.)

Genus 101. **APION.**

Herbst, *Küf*. vii. 100 (1797).

145. **Apion 4-spinosum**, n. sp.

*A. elongato-ovatum*, opacum, nigrum sed ubique squamis demissis cinereo-albidis vestitum; antennis pone medium rostri (elongati, linearis, teretis, subarcuati) insertis; prothorace (subter squamis leviter et parce punctato) conico; elytris (subter squamis profunde crenato-striatis, in interstitiiis rugulosis sed vix punctulatis) ad basin juxta scutellum utrinque densius albido-squamosis; pedibus (præsertim in femoribus tibialisque rectis) clarioribus. *Mas* rostro paululum breviore rugosiusque sculpturato, ad antennae-
rum insertionem obsoletissime subampliato; tibiis posterioribus ad angulum internum spinula subcurvatâ armatis.—Long. corp. lin. 1½.

*Habitat* Fogo; super folia plantarum, præsertim *Aerva javanica*, in inferioribus intermediosque occurrunt.

This *Apion* is particularly interesting, as being the only member of the genus hitherto detected in these islands; and it may easily be recognized by its surface being uniformly clothed with a coarse, decumbent, whitish pubescence. It is further remarkable for the four hinder tibiae of its males being armed at their inner apical angle with a slightly curved spinule*. We observed it only in Fogo, where it was first captured by Mr. Gray (from plants of the *Aerva javanica*) at a low elevation between S. Filipe and the Porto da Luz; and we subsequently met with it, at a much higher altitude, and in still greater abundance, by beating the rank herbage at the Monte Nucho. In all probability it is not peculiar to this archipelago; for I possess four specimens taken by the late Mr. Melly in Egypt which (although perhaps a trifle smaller) seem hardly separable from the Cape Verde ones; but as all of them are unfortunately females, I cannot examine the tibiae of their male sex, and therefore am not able to decide positively.

(Subfam. CLEONIDES.)

Genus 102. **MICROLARINUS.**

Hochhuth, *Bull. de Moscou*, i. 540 (1847).

146. *Micolarinus lypriformis.*

*M. angusto-linearis*, fusco-niger sed pube fusco-cinereâ subalbidâque nebulosus et pilis elongatissuberectis (in elytris sublongitudinaliter) parce obsitus;rostro brevi, crasso, sed sublineari, oculis sat parvis subrotundatis: prothorace rugose punctato, ad latera subrecto atque ibidem densius subalbido; elytris subeylindricis, punctato-striatis, singulis in maculis duabus basalibus (sc. ad humerum et juxta scutellum) nee non in duabus postmediis sublateralibus (omnibus indistinctis et plus minus obliteratoris) densius subalbidis; antennis (brevibus) pedibusque (crassunculis) rufo-ferrugineis, clavâ obscuriore, acuminata.—Long. corp. lin. 1½—2.

* It is not an uncommon circumstance for the two front tibiae of the male Apions to be furnished at their inner apical angle with a small spine (a character which may be seen in the Canarian *A. calcaratum*, the *chalybeipenne* of the Madeiran and Canarian Groups, and the European *cardiurus, euneum*, and *radiolus*, and obscurely in the *onopordi*); but I am acquainted with no other species in which the spinule is removed to the four hinder ones. Possibly, however, a close examination might show that this structure obtains even in some of the recognized forms.

Habitat S. Vicente, Fogo, et Brava; præsertim plantas Zygophylli (vel simplicis vel Fontanesii) in aridis arenosisque inferioribus colens.

This rather narrow and subcylindrical little Curculionid (which is irregularly clothed with a dirty yellowish-brown and whitish pubescence, and sparingly studded with suberect, cinereous, or almost silvery, hairs) is widely spread over the archipelago, where we may anticipate that it will be found to be pretty general in arid and sandy spots of a low elevation. A single example of it was taken, many years ago, by Mr. A. Fry, in S. Vicente—in which island a second was lately obtained (at Madeiralinho) by Mr. Gray; and it was also found by Mr. Gray on the succulent plants of Zygophyllum between S. Filippe and the Porto da Luz in Fogo (where I likewise met with it, afterwards, in tolerable abundance), as well as near the Porto da Furna in Brava.

The M. lypriformis is very closely allied to the M. Lareynei of southern Europe, of which indeed it might well be regarded as but a geographical state. It seems to be, merely, a trifle narrower and more straightened, with its elytra not quite so wide just behind their base (at the humeral angles), and with the decumbent portion of its scale-like pubescence of a slightly yellower, or less silvery, tinge.

Genus 103. LIXUS.

Fabricius, Syst. Ent. ii. 498 (1775).

147. Lixus creteopictus, n. sp.

L. cylindrico-oblongus, niger, pube griseâ adspersus necnon pulvere cretaceo plus minus albido et subroseo densissime late variegatus; rostro (prothorace breviore) cylindrico, crassiusculo, oculis magnis, reniformibus; prothorace (subter squamis profunde et parce punctato) conico, subroseo, sed ad latera (apice punctuloque medio exceptis) albido; elytris (subter squamis grosse substriato-punctatis) ad basin ipsam prothoracis latitudine, apice singulatim rotundatis, subroseo albidoque irregulariter marmorato-fasciatis (sc. sepius subalbidis sed in fasciis basali obscurâ, mediâ dentata, et subapicali intus abbreviatâ, omnibus plus minus obscuris suffusis, subroseis); antennis tarsisque brevibus clariobis, femoribus muticis, tibiis ad apicem internum acutis sed haud uncinatis, tarsi late dilatatis.

Variat pulvere plus minus omnino saturete vel subflave albido (vix subroseo adspersus), fasciis ægre observandis.—Long. corp. lin. 3½—vix 6.

Habitat S. Iago; ad folia Prosopidis (et rarius Zizyphi) in apricis inferioribus intermediisque degens.
This elegant, but variable, Lixus was discovered by Mr. Gray, close to the Villa da Praia, in S. Iago—on a prickly Acacia, or Prosopis (probably the P. physocarpa), in the Palm-grove adjoining the eastern outskirts of the town, a locality in which I met with it myself, subsequently, in equal profusion. Although chiefly on the Prosopis, we obtained it occasionally from the (likewise spiny) Zizyphus orthacantha—both of which are unquestionably indigenous in the Cape Verde archipelago. We did not observe it in any of the other islands, and indeed I am not aware that those trees occur (either of them) except in S. Iago; but in the latter it will perhaps be pretty general throughout the districts which are characterized by that remarkable, and often quaintly-distorted, Prosopis—from which I also captured it at San Domingos.

The present Lixus being the only one hitherto detected in the Cape Verdes, it can scarcely be confounded with anything else enumerated in this volume; nevertheless the excessive beauty of the unrubbed and highly-coloured examples of it, which are densely clothed with a mixture of a somewhat rosy and almost white chalky powder—the head and prothorax (which however has its sides white) being chiefly of the former tint, whilst the elytra are mainly of the latter, but ornamented with three more or less obscure and broken irregular reddish fasciae,—will sufficiently characterize the species. Being very variable, however, its cretaceous covering is sometimes almost entirely of a dirty yellowish-white, with only faint traces of the darker elytral fasciae; whilst, on the other hand, old and abraded specimens (the clothing of which has been destroyed) are of course nearly black. It has a slight primâ facie resemblance to the L. nycterophorus, of Reiche, from Abyssinia; but, apart from many other distinctions, that species (the antennae of which, judging from the published figure, are longer) has the femora dentate; whereas in the creteopictus they are simple.

Genus 104. CLEONUS.
Schönherr, Curv. Disp. Meth. 145 (1826).

148. Cleonus mucidus.
C. oblongus, niger, pube cinereo- (vel subflave-) brunneâ densissime tectus; rostro (prothoracis circa longitudine) lineari, angulato, supra bisulcato, oculis elongatis, anguste reniformibus; prothorace (subter squamis profunde denseque rugoso-punctato) breviter subconico, in disco vix parcius squamoso; elytris (subter squamis grossestriato-punctatis) ad basin ipsam prothoracis latitudine, pone
humeros (oblique sectos) subangulatis, per discum obsoletissime fasciis tribus valde abbreviatis maculiformibus (sc. antemedia, post-media, et subapicali obsoleta in impressione sita) utrinque nebulo­sis, ad apicem ipsissimum paululum deliscentibus; abdominis se­gmentis 2<sup>do</sup>, 3<sup>to</sup>, et 4<sup>to</sup> (vix 5<sup>to</sup>) subtus ad basin nigro 4-maculatis.
—Long. corp. lin. 5½.

Curculio mucidus, Germ., Mag. der Ent. i. 132 (1813).
—— mucidus et var. β, Id., ibid. vi. (pars 2) 48 (1842).

Habitat S. Vicente, et S. Iago; in aridis inferioribus, rarior.

I took a single example of the C. mucidus, close to the Villa da Praia, in S. Iago—beneath a stone, in the Palm-grove to the east of the town; and four more were captured, some years ago, by Mr. A. Fry ("under succulent plants" near Porto Grande) in S. Vicente. We may expect therefore that it will be pretty general, at low elevations, throughout the archipelago; for it is a species which has a wide range along the western countries of Africa—occurring in Senegal, Guinea, &c., and even so far south as the Cape of Good Hope. In eastern Africa it appears to be represented by the nearly-allied C. arenarius—which is found in Egypt, &c., and which extends even into India. It is a variable insect, in the exact colour of its scales; and the particular phasis of it which occurs in these islands was de­scribed in the second volume of Schönherr's work as distinct, under the name of C. maculipes; but subsequently (in vol. vi.) it was treated as a "var. β" of the mucidus—being altogether of a rather yellower tint, with its abdominal patches brighter, and its legs a trifle more annulated.

(Subfam. BYRSOPSIDES.)

Genus 105. GRONOPS.


149. Gronops pallidulus, n. sp.

G. squamis fulvo-cinereis, cinereis, et paulo obscurioribus densissime marmoratus, squamisque demissi subcinereis (in elytris longitudinaliter) parcissime adpersus; rostro angulato, supra planiusculo, inter oculos profunde foveolato; prothorace angustulo, inequali, pone apicem transversim constricto, fulvo-cinereo sed ad latera (subrecta) neeon in medio (late canaliculato) magis subalbidocinereo; elytris prothorace multo lutiorebus, grosse striato-punctatis, in suturâ interstitiisque alternis costato-elevatis (costâ discalî
ante apicem subito terminatā, nodum parvum efficiente), cinereobrunneis et hinc inde subnigro irroratis, sed utrinque et postice plus minus fulvo-cinereis, necnon in fasciis duabus transversis obscuris (sc. in medio et ante apicem sitiis) paululum albidoribus.

*Variet* squamis plus minus concoloribus, fasciis obsolcis.—Long. corp. lin. \(2\frac{3}{4}\)–\(2\frac{2}{3}\).

*Habitat* S. Vicente; sub lapidibus in aridis inferioribus, ac paululum elevatis, congregans.

This handsome *Gronops* is very much larger than the European (and Canarian) *G. lunatus*, with the subapical node of its elytra less developed, with its legs relatively longer, and with its coloration different. This latter (although perhaps with a less admixture of snowy-white scales) is *on the whole* paler and more uniform—the major portion of the surface being of a pale yellowish-brown, or brownish-cinereous, hue; and the two elytral fasciae (the anterior one of which is narrower and less lunulate) are more suffused, or less sharply defined. The only specimens which I have seen were taken by myself, beneath stones, at a very slight elevation in S. Vicente—on the arid slopes about a mile to the south-east of Porto Grande, in ascending from the sandy tracts to the first range of low rounded hills. There, however, it was in tolerable abundance—occurring (as is usual with the members of this genus and *Rhytidorhinus*) in clusters, within the scoriaceous hollows of the stones.

(Subfam. BRACHYDERIDES.)

Genus 106. DINAS (nov. gen.).

*Corpus* plus minus elongato-ovatum, minutissime squamosum et interdum setis erectis obsitum, apterum; *rostro* brevi, subparallelo, supra planiusculo, serobe profundo, curvato, longe ante marginem oculi (parvi, subrotundati) anticum oblique ducto; *prothorace* antice paululum constrieto-angustato, sed recte terminato et fasciulcis lateralisibus haud instructo; *scutello* minutissimo, ægre observando; *elytris* antice plus minus angustatis, ad basin ipsam aut prothoraces latitudine aut paululum latiorebus. *Antenna* (ad apicem rostri insertæ) subgraciles; *scapo* subflexunso, ad apicem parum subito clavato; *funiculo* 7-articulato, art\(7^a\) et 2\(°\) obconiceis, illo longiusceulo, hoc breviore, reliquis subrotundatis moniliformibus latitudine vix crescentibus (art\(6^a\) horum medio, aut funiculi quinto, annexis obsoletissime subminore); *clavâ* abruptâ, solide 3-articulatâ, apiçe acutâ. *Pedes* longiusceuli, robusti; *femoribus* subitus denticulo minuto armatis; *tibiis* antecis subcarvatis, et intus sæpius minutissime subserratis; *tarsis* latiusceulis, *unguiculis* ad basin connotatis.

[Typus—*D. rugicollis.*]
The five species for which I have established the present genus are remarkable (inter alia) for their femora being armed beneath with a minute spinule, and for the first and second joints of their funicular being obconical and (particularly the former) comparatively elongate, whilst the remaining five are short, subglobose, and moniliform—the central one of them, moreover (or the fifth of the funiculus), being just perceptibly smaller than the one which precedes and that which follows it. As in most of the true Brachyderides, the elytra are more or less narrowed anteriorly (where they are either of the same width as the base of the prothorax, or only very slightly broader), their bodies are apterous, their scutella are barely traceable, and their claws are soldered together at the base. I may add that I sent the D. ob-sita to Liége, for the opinion of Lacordaire—who returned it with the following remark: “J'ai examiné avec soin le petit insecte des îles du Cap Vert. Je ne le connais pas, mais c'est évidemment un Brachyderide vrai, très voisin des FouUARTIA et des PlatyTARUS, mais ne rentrant bien dans aucun de ces deux genres—donc il diffère non seulement par ses cuisses dentées en dessous, mais par quelques autres caractères portant principalement sur le rostre et les scrobes. Je crois que vous pouvez hardiment en faire un genre, dont la place me paraît être entre les deux que je viens de nommer.”

150. Dinas rugicollis, n. sp.

D. nigra, quasi subcalva (solum squamulis minutissimis granuliformibus fere conceoloribus, aut vix dilutoribus, præsertim postice irrorata, pilisque suberectis subcinereis versus latera et apicem par-cissime obsita); rostro parce et leviter punctulato, necnon rugose longitudinaliter strigo; prothorace brevi, apice truncato, ad lattera valde rotundato, basi distincte marginato, grosse scabroso- tuberculato (tuberculis magnis), in medio profunde caualiculato; scutello minutissimo; elytris convexis, subglobose, inflatis, leviter substriato-punctatis; antennis brevibus, piecensitibus, clava ab ruptà; pedibus robustis, femoribus subtus denticulo minutissimo armatis, tibiis anticiis intus distincte sed parce serratis; tarsis latiusculis.—Long. corp. lin. 3–3½.

Habitat S. Vicente; sub lapidibus in summò ipso Montis Viridis par-cissime deprehensa.

A most remarkable Curculionid, and apparently exceedingly scarce—the very few specimens which I have seen having been captured by myself, beneath stones, on the extreme summit of Monte Verde, in S. Vicente. Probably, however, at a different season of the year it might be more plentiful. Its rather large size and deep-black hue,
combined with its short, laterally-rounded, and very roughly sculptured prothorax (which is densely beset with exceedingly coarse tubercles), and its convex, inflated, subglobose, lightly striate-punctate elytra, will sufficiently characterize it. Its rostrum is a trifle longer than in the four following species, its antennal club is thicker and more abruptly, and its anterior tibiae are more evidently serrated internally. The fact of its surface being black causes it at first sight to appear entirely bald; nevertheless when closely inspected it will be seen that at any rate its elytra are besprinkled with most minute and nearly concolorous scales, which have all the primâ facie appearance of granules. They are more abundant, however, behind than in front—where, also, from being a little paler (or more fulvescent), they are more conspicuous.

151. Dinas elliptipennis, n. sp.

_D_, subnigra, squamulis minutis submetallico-cinereis densissime nebulosa pilisque erectis subcinereis præsertim postice parce obsita; rostro antice laevi, postice argute longitudinaliter strigosus; prothorace ad latera rotundato, utrinque saepe subdensus cinereo, in medio subintegro (vix canaliculato); scutello distincto; elytris ellipticis, leviter punctato- striatis; antennis (breviusculis) pedibusque ferrugincis, femoribus subitus denticulo minuto armatis, tibiis anticis intus obsolete et parce serratis; tarsis latiusculis.


_Habitat_ Fogo; in herbidis (inter Euphorbias) ad Monte Nucho capta.

Easily known from the other species here enumerated by its elytra being more regularly _elliptical_, and its entire surface densely clothed with whitish, or cinereous, scales which have a distinct submetallic lustre. It is smaller than the last species, but a little larger and broader than the following ones. Neither its scutellum nor the denticle of its femora is quite so minute as is the case in the _rugicolleis_, and its antennal club is narrower and more acuminate; but its feet are almost as broad as in that insect, and its anterior tibiae are very obsoletely serrated along their inner edge. Its rostrum is smooth anteriorly, but longitudinally strigulose behind; its antennae are rather short, and of a clear rufo-ferruginous tint; and its prothorax is closely rugose-punctate, and almost free from any appearance of a dorsal channel.

I have seen but five examples of this insect—all of which were taken by myself, amongst herbage, and in the immediate vicinity of the Euphorbias, at the Monte Nucho, in Fogo.
152. Dinas angustula, n. sp.

_D. angustula_, subnigræ, squamulis minutis cinereis et brunnæis (rarius submetallicis) densissime lutoso-nebulosæ, aut calva aut setis crassis subrectis subcinereis præsertim postice parce obsita; prothorace ad latera leviter rotundato, utrinque subdensis cinereis, in medio subintegro aut tenuiter canaliculato; scutello minutissimo, aegre observando; elytris angustulis, antice gradatim angustatibus (ad basin ipsam prothoracis latitudine), in medio leviter rotundatis, punctato-striatis; antennis pedibusque aut ferrugineis, aut piceo-ferrugineis, illarum clavâ acutâ, femoribus subtus denticuolo minuto armatis, tibiis anticus intus subintegris, tarsi latiusculis.—Long. corp. lin. 2–2½.

_Habitat_ S. Antão; in intermediiis editioribusque, præsertim inter _Euphorbias_, lecta.

Whatever may be the modes of life of the other members of the present genus, this species and the following one appear to be attached chiefly to the _Euphorbias—from the bushes of which they may sometimes be taken in considerable profusion_. Whether they are exclusively, however, _of Euphorbia_-infesting propensities I cannot tell; for we occasionally obtained them from the flowers of other plants likewise, in the vicinity of those viscous shrubs; but I am inclined to suspect that, in at all events their previous states, they will be found to be so. And if that should be the case, I have little doubt that the habits of at any rate the _elliptipennis_ (from Fogo) are similar. The _D. angustula_ was captured abundantly, by Dr. H. Dohrn, in the north of S. Antão—from _Euphorbias_ at the Feijãa dos Bois; and three examples of it (which are altogether free from additional erect setae) were found by Mr. Gray in the same island—namely, at Catano, towards the head of the Ribeira das Patas.

The present _Dinas_, however, and the following one being both extremely variable (in outline and clothing), I cannot feel altogether satisfied that they are more in reality than insular states of a single plastic form. Yet, in spite of their great instability, they certainly do possess a few distinctive characters, one or more of which are always appreciable in even the most aberrant specimens. Thus the _D. angustula_ is _on the average_ a little larger and narrower than the _obsita_; its elytra are less ovate (or less rounded _behind_ the middle), and more sparingly studded with rather shorter setae (some examples indeed being quite free from them); and its antennae and legs are just perceptibly thicker. The club of the former, also, is a trifle
less abrupt at its base (consequent on the ultimate joints of the funiculus being a little more incrassated), and more decidedly acuminato at its apex; and the tibiae and feet are somewhat broader, or more developed—the former being, if anything, a little more curved (or less straightened along their inner edge).

153. Dinas obsita, n. sp.

D. precedenti affinis et forsan eijus varietas insularis; plerumque subminor ac paulo minus angustata, elytris magis ovatis (pone medium rotundationibus) setisque longioribus densius adspersis, antennis pedibusque sensim gracilioribus, illarum clavā ad basin paululum magis abruptā (i. e. funiculi articulis ulterioribus vix minus incrassatis) necnon ad apicem minus acuminatā, tibiis subrectioribus (intus evidenter minus sinuatis), tarsis subangustrationibus.—Long. corp. lin. 1 3/4.

Habitat S. Vicente; praecipue inter Euphorbias, sed interdum ad flores varios (Tornabenie insularis et caet.), in editioribus occurrens.

Whilst the last species seems to be peculiar to S. Antão, the present one clearly represents it in the neighbouring island of S. Vicente; and, considering how variable both of them are, I cannot (as just stated) feel quite sure (despite the opposite aspect of their extremes) that they are more than insular modifications of a single form. Yet to treat them as such would perhaps hardly be prudent—seeing that they have a few distinguishing points which are always more or less traceable, and since the whole of these four species (the elliptipennis, angustula, obsita, and sitonaformis) are connected topographically with each other in much the same kind of way as are the two now under consideration. The D. obsita occurs in the higher districts of S. Vicente (as the angustula does in those of S. Antão), from which island it was first communicated to me, a few years ago, by the English consul, Mr. Miller. During our late expedition, however, it was taken abundantly by myself and Mr. Gray on the summit of Monte Verde—chiefly on the flowers, and dead shrubs, of the Euphorbia Tuckeyana, though likewise on the blossoms of Tornabenia insularis (a carrot-like plant growing in the immediate vicinity of the former). I have little doubt that it is, in reality, of Euphorbia-infesting habits.

As already implied, the D. obsita is on the average a little smaller than the angustula; and its elytra are usually more ovate (or rounded behind the middle), as well as more densely (though, at the same time, sparingly) beset with rather longer erect setae. Its
limbs also are just appreciably slenderer, with the antennal club somewhat abrupter at the base (consequent on the terminal joints of the funicularus being a trifle less thickened), and less acuminate at the apex; its tibiae are, if anything, perhaps, straighter (or less sinuated along their inner edge); and its feet are not quite so broad.

154. Dinas sitonaeformis, n. sp.

D. nigra, nitida, squamulis minutis cinereo-metallicis (sæpius opalino et virescente, rarius subaureo vel cupreo tinctis) nebulosa (sed pilis setisve omnino carens); capite rostroque fere esculpturatis, oculis majusculis prominentibus; prothorace (saltem in disco) leviter et parce punctato, ad latera paulo rotundato et vix subden- sius squamoso, in medio tenuiter canaliculato; scutello minuto; elytris ovalibus, subconvexis, (ad basin ipsam prothorace vix latio- ribus,) punctato-striatis; antennis pedibusque longiusculis, ferr- rugineis, illis versus apicem femoribusque (subtus denticulo mi- nuto armatis) paulo obscurioribus, tibii anticus intus subintegris, tarsi longiusculis.—Long. corp. lin. 2–2½.

Habitat S. Nicolão; à Dom. Gray inter plantas Malva parvisflora sat copiose deprehensa.

Several examples of this distinct species were brushed by Mr. Gray off some plants of Malva parvisflora, on the mountains in S. Nicolão—at about 2000 feet above the sea. They bear so strong a primæ facie resemblance to a somewhat opaline, submetallic Sitona (of the regensteineïs and latipennis type) that, until I had examined them carefully, I concluded them to be an exponent of that genus; nevertheless the denticle of their femora, their apterous body, their connate claws, and the structure of their funicularus—the first and second joints of which (especially the former) are obconical and comparatively elongate, whilst the remaining five are short and sub- moniliform, with the third (or central) one of them just appreciably smaller than those which adjoin it—unmistakeably affiliate them with the members of our present group, of which perhaps they may be regarded as the representative in S. Nicolão. If peculiar how- ever to the Mallows, they at least recede in their habits from most of the other species (which seem more or less dependent on the Eu- phorbias); but, still, we have yet to ascertain that this is truly the case; for Mr. Gray’s examples may possibly have been attracted to the blossoms of those plants, just as the D. obsita in S. Vicente ap- pear to have been to those of the carrot-like Tornabénia.

But whatever be the mode of life of the D. sitonaeformis, it is
abundantly distinct from the other species here enumerated; for not only is it more brightly coloured, or metallic (varying in its scales from a palish opaline-blue into greenish, or even into a brassy green), and apparently free from all traces of suberect hairs or setae, but its surface (beneath the pubescence) is more polished, and the sculpture of its head and prothorax is very much lighter; indeed the former, together with the rostrum, is almost unsculptured. The last five joints of its funiculus are not quite so rounded and moniliform as is the case in the other species.

Fam. 35. ANTHRIBIDÆ.

Genus 107. TRIGONORHINUS.


*Corpus* breviter oblongum, densissime pubescentem variegatum; *rostro* brevissimo, subtriangulari, apicem integro bisinuato rotundato (nee emarginato, nee etiam truncato), *oculis* parvis, demissis, antice anguste emarginatis; *prothorace* convexo, æquali (nee tuberculato, nee strigato), conico, postice elytrorum latitudine, antice rotundate producto, basi margi tato, necnon in dimidiâ parte posteriâ marginis lateralis carinato; *scutello* parvo, subrotundato; *elytris* postice pygidio brevioribus. *Antennae* prothorace vix breviores, graciles sed apice abrupte et valde clavatae, mox ante sinum oculorum in foveâ laterali insertae, art. 1\textdegree\textsuperscript{m}, et 2\textdegree\textsuperscript{m} (illo praecipue) longiusculis robustis, reliquis ad clavam parvis latitudine subæqualibus (3\textdegree\textsuperscript{m} quarto vix longiore), 9\textdegree\textsuperscript{m}, 10\textdegree\textsuperscript{m} et 11\textdegree\textsuperscript{m} clavam magnum valde abruptam efficiuntibus. *Pedes* sat validi, postici paulo breviores: *femoribus* muticis; *tarsi* pseudotetrameris, art. 1\textdegree\textsuperscript{m} et 2\textdegree\textsuperscript{m} longitudine subæqualibus, hoc apice leviter emarginato, tertium profunde bilobum recipiente, 4\textdegree\textsuperscript{m} minus tissimo, inter lobos tertii abscondito.

The present genus is perhaps nearer to *Cratoparis* than to *Anthribus* proper; and it may be known, *inter alia*, by its exceedingly short and triangular rostrum (which is wide behind, regularly attenuated anteriorly, and produced, or rounded, at its extreme apex, instead of being scooped-out), its sunken eyes, greatly abbreviated, abruptly-clubbed antennæ, conical prothorax, and even surface. And it is also remarkable from its having no trace whatsoever of the antebasal prothoracic costa which is usually more or less apparent in these immediate Orthocerous groups; and its antennæ have their third and fourth joints subequal in length, with their clava very wide and abrupt.
155. *Trigonorhinus pardalis.*

*Trigonorhinus* subcylindrico-oblongus, squamis brunneo-nigris et fulvescenti-subcinereis densissimè variegatus, sed pilis erectis omnino carens; rostro brevi, triangulari, depresso; prothorace conico, convexo, brunneo-nigrro sed obscure fulvescente marmorato; coleopteris latius maculatus, se. (praesertim in disco) fulvescenti-subcinereis, sed in interstittis alternis punctis brunneo-nigris longitudinaliter tessellatis, necnon utrinque macula majore discali brunneo-nigra ornatis; antennis brevibus, rufo-ferrugineis, clavâ (apruptâ) pedibusque nigrescentibus.—Long. corp. lin. 1.4—2.4.

*Trigonorhinus pardalis*, *Woll.*, *loc. cit.* 103 (1861).

*Habitat* S. Vicente; mihi non obvins, sed à DD. Gray et Clark mense Decembrí a.d. 1856 invenisse dictur.

Two examples of this insect were communicated by the Rev. H. Clark, amongst the few species which were taken by himself and Mr. Gray during their day’s sojourn at S. Vicente, in December 1856; but as we did not meet with any traces of it during our recent (and more careful) explorations in the same island, I cannot but feel that additional evidence would be very desirable in order to make perfectly sure that no mistake arose concerning its habitat. I mention this, not that I have any particular reason for questioning the latter, but simply because we did not obtain it during our late cruise, and because Mr. Clark had no recollection whatever concerning its actual capture—and (I may further add) because I myself inspected examples (which did not seem, *primâ facie*, to differ from the supposed S. Vicente ones) which he collected during the previous June in Algeria. Hence it appears to me to be just *possible* that Mr. Clark may perhaps have mixed-up accidentally a few of his Algerian specimens with those from the Cape Verdes—an observation which applies equally to two other species included in this volume, namely the *Xenoglæus politus* and the *Isomatus hesperidum*. Still this is but conjecture on my part; and I must state distinctly that I have no reason for doubting the professed habitat of any of the three insects to which I have alluded, except that our more recent investigations failed to detect them, and that they *all* rather depart from the particular types of form which are more particularly characteristic of these islands. It is quite possible, however, that, so far as the *T. pardalis* is concerned, it may occur both in northern Africa and the Cape Verde archipelago.

The *T. pardalis* may be known by its short, cylindric-oblong outline, abbreviated, flattened, triangular rostrum, and obscurely dappled surface. The latter is densely clothed with brownish-black
and somewhat fulvo-cinereous scales—those on the prothorax being *chiefly* of the former hue; whilst the elytra are principally of a dull yellowish-cinereous tinge, but tessellated with darker rounded spots which are placed longitudinally down the alternate interstices; and there is also a rather larger patch on the inner disk of each elytron. Its antennæ are short, slender, and rufo-ferruginous, with an abrupt darker club.

**Fam. 36. BRUCHIDÆ.**

Genus 108. **BRUCHUS.**

Geoffroy, _Ins. des Env. de Paris_, i. 163 (1762).

§ 1. Oculi modici, profunde emarginati, in fronte parum distantes. Femora postica versus apicem internum spinis duabus elongatis acutis armata; tibiae posticae late, ad apicem calcari elongato robusto instructæ.

156. **Bruchus calcaratus**, n. sp.

*B. niger* sed squamis albidis, fulvo-cinereis nigrisque laete pictus; capite in medio argute carinato; prothorace (subter squamis fulvo-cinereis densissime et minute punctulato-rugulosis) conico, basi trisinuato (in lobo medio densius fulvo-cinereo); scutello albido; elytris subquadratis, fulvo-cinereis sed singulis fasciis majoris medio intus abbreviata, necnon in interstitio tertio (parte basali concolori, punctulisque duobus nigris, exceptis) neeron in fasciis postmedii (inter maculas nigras sita) albido irroratis, argute et profunde erenato-striatis; pygidio fulvo-cinereo, immaculato; antennis robustis, serratis, nigrescentibus, basi pedibusque anterioribus fusco-testaceis, posticis nigris.—Long. corp. lin. 1\frac{1}{2}.

_Habitat_ S. Vicente; in domo Milleriana ad Portum Grandem à Rev. R. T. Lowe semel captus.

The single example from which the above diagnosis has been compiled was taken by the Rev. R. T. Lowe, in S. Vicente—in Mr. Miller’s house at Porto Grande; so that I cannot feel quite sure that it may not be the exponent of a species which has become naturalized in the island. At first sight it has somewhat the coloration and aspect of the European *B. marginellus*, though in reality it belongs to a totally different section of the genus,—having the eyes larger, the elytra (which are fulvo-cinereous, but brightly maculated with black, and interspersed with a few snowy-white scales) squarer, the hind femora armed beneath with two acute spines, and the hind tibiae broader and furnished with a very much more elon-
gate and robust spur. Its limbs too are altogether more developed, and (instead of all being black) the posterior legs and the apical portion of the antennae are alone nigrescent—the base of the latter, and the four front legs, being of a brownish-testaceous hue.

§ II. Oculi maximi, minus profunde emarginati, valde prominentes, antice in fronte approximati. Femora subintegra (postica versus apicem internum denticulo minutissimo, obsolet, subanguliformi, vix observando, solum armata); tibiae postice ad apicem calcari minuto instructae.

157. Bruchus amplicornis, n. sp.

B. niger sed in elytris abdomineque rufo-ferrugineus, ubique fulvo-cinereo squamosus; capite in medio argute carinato; prothorace (subter squamis densissime et minutissime subpunctulato-ruguloso) conico, basi trisinuato; femora integra (postica versus apicem internum denticulo minutissimo, obsolet, subanguliformi, vix observando, solum armata); tibiae postice ad apicem calcari minuto instructae.

Mas paulo major, antennis pedibusque longioribus (illis valde elongatis et grosse serratis), tarsis multo longioribus.

Fem. sensim minor, elytris brevioribus, antennis (pallidioribus?) pedibusque (præserint taris) brevioribus.—Long. corp. lin. 1\(\frac{1}{2}\)–1\(\frac{3}{4}\).

Habitat Fogo; in intermediis rarissimus.

Two male examples of this beautiful Bruchus were taken by myself in the intermediate districts of Fogo, by brushing the dry vegetation between the Monte Nucho and Pico Pires; and a female, which I have no hesitation in referring to the same species, was obtained by the Rev. R. T. Lowe amongst some plants which he had collected in the latter locality. Mr. Lowe’s specimen was found within the semi-dried fruit of a shrub which is regarded by the inhabitants as a kind of plum, but which in reality does not belong to even the same natural family—being, most probably, a Diosporus. Its greatly developed eyes and antennae (the former of which are anteriorly subapproximate on the forehead, whilst the latter in the male sex are extremely elongate and coarsely serrated), combined with its almost simple posterior femora, will readily distinguish it. Although its entire surface is uniformly clothed with fulvo-cinereous pubescence (giving it a somewhat hoary appearance), the colour nevertheless (beneath the scales) of its head, prothorax, and scutellum is black, whilst that of its elytra, abdomen, and legs
is a more or less clear rufo-ferruginous. Its elytra, however, are a little darkened in the scutellary region and at the shoulders; and its feet have their apical joint conspicuously (and the third and fourth ones slightly) blackened.

**Fam. 37. CRIOCERIDÆ.**


158. Lema Milleriana, n. sp.

*L. nitidissima, rufo-testacea, in elytris viridi-cyanea sed rufo-testaceo picta; capite inaequali, postice saepius nigrescente et ibidem in medio profunde foveolato, oculis magnis, prominentibus; prothorace antice angulatim latiore, longe ante basin transversim valde constricto (quare ad latera pone medium quasi profunde excavato), fere impunctato, in maculis tribus ad marginem antienem inertiis, necnon in alterij basali ad angulum posticum utrinque posita, nigro; scutello parvo, postice truncato, rufo-testaceo; elytris (prothorace multo latioribus) parallelis, viridi-cyaneis, sed ad apicem necnon in fasciâ transversâ mediâ rufo-testaceis, grosse substrato-punctatis, ante medium in disco utrinque malleato-inaequalibus; antennis pedibusque elongatis, testaceis, illis versus apicem interdum obscursioribus, tarsis ad apicem ipsissimum nigrescentibus.

a. Elytrorum fascia media transversa integra, i. e. usque ad marginem lateralem utrinque ducta. [Ins. *S. Iago.*]


*Habitat* S. Vicente, et S. Iago; in intermediis editionibusque rarissima.

Species ornatissima, pulchritudine superbiens, et in honorem T. Milleri, Amigeri, in Hesperidis consultis Britannici citata.

The excessive beauty of this elegant *Lema*—which has the head and prothorax rufo-testaceous (the former however being blackened posteriorly, and the latter also in three more or less confluent anterior patches, as well as in a lateral one on either side at the base), whilst the elytra are of a bright greenish-blue, with the apical por-

* In their basally-connate claws, and posteriorly-constricted prothoraces, the two species described above belong to *Lema*, rather than to *Crioceris*; and the shape of their scutella (which are minute, and somewhat truncated at the apex, instead of being rounded or produced) is likewise more in accordance with the members of the former group, than with those of the latter.
tion and a central transverse fascia rufo-testaceus—will readily distinguish it. Its entire surface is very highly polished; its pro-
 thorax (which is impunctate) is comparatively wide in front, where it is anguliform on either side, but greatly constricted at a consider-
able distance from the base—a structure which causes the lateral edges to appear deeply scooped-out a little behind the middle; and its legs are testaceous.

The *L. Milleriana* is apparently extremely scarce, occurring at intermediate and lofty altitudes: With the exception of a single example, which has lately been communicated from S. Vicente by Mr. Miller (after whom I have named the species), the few speci-

mens which I have seen were taken by myself—partly by shaking some heaps of dead vegetable refuse (composed mainly of the stalks of Indian corn) on the summit of Monte Verde in S. Vicente, and partly at San Domingos in the interior of S. Iago. The examples from the latter locality were all captured, in company with the *Aspidomorpha cineta*, beneath the dry loosened bark of a large native *Ficus* (either identical with or allied to the *F. sycomorus*); but as I found them during January, it is probable that they were merely hybernating, and are not necessarily connected with that particular kind of tree. In the S. Iago individuals the medial fascia is con-

tinued *quite across* both elytra, so as to reach the outer margin of each; whereas in those from S. Vicente it is much abbreviated (ex-

ternally) on either side; but there is no other difference, that I can detect, between them.

159. *Lema Clarkiana*, n. sp.

*L. nitida*, infra nigra, supra luride flavo-testacea; capite inaequali, 
piecescente, oculis vix permagnis sed valde prominentibus et sub-
conicis; prothorace angusto, antice (vix subangulatim) rotundato, 
ante basin transversim constrieto (quare ad latera pone medium 
qua quasi excavato), nitidissimo sed punctis perpaucis (sat magnis sed 
levibus) præsertim in disco et versus latera irrorato; scutello 
parvo, postice truncato et subcanaliculato, nigrescente; elytris 
(prothorace multo latoribus) parallelis, per suturam nigro-
piecescentibus neconon pone scutellum sæpius obsoletissimè ob-
scuratis, grosse substrato-punctatis; antennis nigrescentibus, ad 
basin piceo-ferrugineis; pedibus testaceis, tarsis ad apicem nigres-

centibus.—*Long. corp. lin.* circa 2.

*Habitat* S. Vicente; inter quisquilias aridas unà cum specie præce-
dente parce deprehensa.

The remarkable *prima facie* resemblance which this *Lema* bears
to the *Crioceris luridotestacea* will shortly be alluded to,—the lurid, yellowish-testaceous colour of the two insects, combined with their more or less darkened antennæ, head, and suture, causing them at first sight to appear almost similar. Yet I believe, nevertheless, that in reality they do not belong to even the same genus—the minuter and posteriorly truncated scutellum of the present species, added to its slenderer limbs, differently-shaped prothorax, and basally-soldered claws, showing it, at all events, to be a true and genuine *Lema*. Apart from these characters, however, a careful inspection will prove that, in other respects likewise, it is abundantly distinct,—being not only a little smaller and more shining than the *Crioceris luridotestacea*, with its head more glabrous and, together with the subconical eyes (which are extremely prominent), less developed, but with its prothorax (which is altogether narrower) more rounded anteriorly, though with the extreme front angles more thickened, and with its elytra immaculate—the suture only being darkened.

I obtained a few examples of the *L. Clarkiana* on the top of Monte Verde, in S. Vicente, by shaking the dry vegetable refuse out of which I obtained the preceding species and the *Crioceris luridotestacea*; and a single one was met with by Mr. Gray, in the same locality, by beating the herbage about semicultivated spots. I am glad to dedicate it to the memory of my late friend the Rev. Hamlet Clark, whose researches have thrown so much light on the Phytophagous group of the Coleoptera.

Genus 110. **Crioceris**.

Geoffroy, *Ins. des Env. de Paris*, i. 237 (1762).

160. *Crioceris luridotestacea*, n. sp.

*C. subnitida*, infra nigra, supra luride flavo-testacea sed in elytris parce negro picta; capite lato, inæquali, parce fulvo pubescente, postice nigrescoente et in medio frontis argute canaliculato, oculis magnis et valde prominentibus; prothorace breviter subcylin-drico, ad latera paululum rotundato et mox ante basin transversim constricto, subopaco, levissime et obsolete subpunctato-ruguloso, concolori; scutello majusculo, postice subrotundato, nigresco-cente; elytris (prothorace multo latioribus) parallelis, per suturam (sed vix ad apicem), neon in maculis duabus parvis (se. ad humerum et in medio ante apicem sitis) nigro ornatis, grosse substrati-punctatis; antennis pedibusque crassis, illis nigresco-centibus, his testaceis, tarsis latiusculis, ad apicem nigrescoentibus. —Long. corp. lin. 2\(\frac{1}{3}\).

*Habitat* S. Vicente; cum speciebus *Lema* præcedentibus semel lecta.
The single example described above was captured by myself, at a high elevation, in S. Vicente—by shaking the weeds and stalks which had been cleared off from cultivated spots, and accumulated into heaps, on the summit of Monte Verde; and a second has lately been communicated from the same locality by the English Consul, Mr. Miller. I feel almost sure that its claws are not soldered together at their base; but, apart from this, its other external features—including its thickened limbs, its more cylindrical prothorax, and its rather larger and posteriorly more rounded scutellum—are so much more in accordance with *Crioceris* than with *Lema* that I have but little hesitation in referring it to the former of those groups.

In general colouring and aspect the *C. luridotestacea* has a curious resemblance, at first sight, to the *Lema Clarkiana*; but, in addition to the structural features above alluded to, it may be known from the latter by being a little larger and broader, by its head being wider and more sericeous, with the eyes less conical and considerably more developed, by its (rufo-testaceus) prothorax being less polished, and by its (lurid-yellow) elytra being not only more regularly darkened along the suture, but having likewise a small patch at either shoulder, as well as a *subapical* one in the centre of each elytron, black.

**Fam. 38. GALLERUCIDÆ.**

**Genus 111. CALOMICRUS.**


161. *Calomicrus tæniatus*, n. sp.

*C. nitidus*; capite nigrescente, in fronte binodoso (nodos scapos antennales simulantibus) et inter nodos profunde foveolato-sulcato; oculis magnis; prothorace rufo-testaceo sed in disco antico septius paulo obscurato, parce punctulato, subquadrato, angulis antice incassatis, posticis obtusis sed paululum obscurato, parce punctulato, subquadrato, angulis antice incrassatis, posticis obtusis sed paululum incrassatis, basi leviter rotundato; coleopteris (prothorace multo latioribus) testaceis, sed in limbo lineâque latâ magna longitudinali discale utrinque nigro ornatis, paulo profundiis subrugulose punctatis, apice singulatim rotundatis et pygidio nigrescente brevioribus; antennis pedibusque elongatis, gracilibus, illarum artî 1°, 2°, 3° neeon 9° et 10° plus minus piceo-testaceis, 4°, 5°, 6°, 7°, 8° et 11° nigrescentibus, his testaceis, femoribus ad apicem, tibiis ad basin, tarsisque minus infuscatis. Subtus (capite, limbo, et apice, obscurioribus, exceptis) testaceus, abdomen pubescente.—Long. corp. lin. 1½-2½.

**Habitat** S. Vicente, S. Iago, et Brava; interquisqulias aridas in
This beautifully-striped Calomieaeus is widely spread over the Group, occurring at intermediate and lofty elevations. It was taken in tolerable abundance by myself and Mr. Gray, on the top of Monte Verde, in S. Vicente (in which island it was also captured by Mr. Miller)—by shaking the heaps of dry vegetable refuse, composed of the stalks of Indian Corn and other plants, which had been cleared off from cultivated spots; and I subsequently met with it at San Domingos and St. Catharina in the interior of S. Iago, as well as near the Povoação in Brava. We may expect it, therefore, to be almost universal throughout the archipelago. It may be readily known by its testaceous hue—the head however being darkened, and the elytra having their margin, and a broad longitudinal band down the disk of each, black. The limbs are elongate and slender; and the antennae are remarkable from having their first three joints and the ninth and tenth more or less piceo-testaceous, whilst the remainder (which include the ultimate one) are darkened.

Fam. 39. HALTICIDÆ.

Genus 112. HALTICA.

Geoffroy, Ins. des Env. de Paris, i. 244 [script. Altica] (1762).

(Subgenus Phylloatre, Chev.)

§ I. Antennarum art. 3¾ secundi circa longitudinem (aut vix sublongior).

Scutellum minutum. Elytra ad humeros subrotundata.

162. Haltica Dohrniana, n. sp.

H. ãnea, vix subvirescente tineta, nitida; capite coriaceo (sed vix punctato); prothorace (subtilissime transversim striguloso) elytrisque densissime et distincte punctulatìs, illo ad latera distincte, ad basin tenuissime marginato, augulis anticis paululum incrasata-tis, his pygidio paulo brevioribus; antennis elongatis, gracilibus, fuscis, ante basin paulo magis testaceis, artʻulte suboblongo; femori-bus piceoecentibus, tibiis tarsisque plus minus saturate piceo-testae-
cis.—Long. corp. lin. vix 1½.

Habitat S. Antão, et S. Vicente; in editioribus rarior.

Obs.—H. nodicornem, Europæam, primá facie simulans, sed paulo minor, nitidior, minus nigro-ænea (se. evidentius subvires-
cente tineta), ac sensim subtilius punctulata, elytris minus paral-
lelis (ad humeros magis rotundatis) et subconvexioribus, antennis
(in utroque sexu, nisi fallor, similibus) sublongioribus, multo gracilioribus et pallidioribus (se. fuscis, vel bruneis, basi dilutioribus), necnon pedibus, præsertim in tibiis tarsisque, pallidioribus.

Two examples only of this Haltica have, as yet, come beneath my notice. One of them was taken by Dr. H. Dohrn (after whom I have named the species) in the Ribeira de Garça, towards the north of S. Antão, and the other by Mr. Gray on the top of Monte Verde in S. Vicente. It is rather larger and more brassy than either of the following species; its forehead is subopake and coriaceous, but hardly punctured; its antennæ are longer and paler—being brownish (except before the base, where they are testaceous), and with their ulterior joints comparatively elongate (a structure which is very evident as regards the terminal one); and its tibiae and tarsi are dull-testaceous.

The H. Dohrniiana is somewhat allied to the European H. nodicori-nis; but, unless I am much mistaken, its antennæ are similar in both sexes. Apart from this, however, it is a trifle smaller, less deeply punctured, and more shining, than that insect; and, instead of being entirely of a dark-aeneous hue, it has an additional (though very obsolete) subvirescent tinge; its elytra are somewhat shorter, convexer, and less parallel (being more rounded at the shoulders); and its antennæ are longer, as well as very much slenderer, and, together with the tibiae and feet, paler.

163. Haltica laeviceps, n. sp.

H. nigro-aenea et conspicue virescente tincta, nitidiuseula; capite nitido, fere impunctato; prothorace elytrisque alutaceis, densissime et minute punctulatis, illo postice latiuseulo, ad latera distincte, ad basin tenuissime marginato, angulis antecis paululum incrassatis; antennis gracilibus, nigrescentibus, fere concoloribus (ante basin obsolete dilutioribus), art° ult° subovali; femoribus nigrescentibus, tibiis tarsisque paulo dilutioribus, his ad basin saturate subtestaceis.


Habitat S. Iago; ad plantas Sinapis nigra, nisi fallor, capta.

Three examples of this little Phyllotreta were taken by myself (I believe off Sinapis nigra) at San Domingos, in S. Iago. Its rather finer punctation and more evidently greenish-brassy lustre, combined with its brighter and almost unsculptured head, will sufficiently distinguish it from the other two species here enumerated. It has much in common at first sight with the European H. melana, but is a little more metallic and finely punctulated, with its forehead
brighter and unsculptured, with its prothorax a trifle longer and more conical (or widened posteriorly), its elytra somewhat more rounded-off at the shoulders, and with the subbasal joints of its antennae, as well as its tibiae and feet (the last of which have their third joint less broadly expanded), a little more diluted in hue, or less blackened.

§ II. Antennarum art. 3\textsuperscript{a} secundo subbrevior. Scutellum paulo major, semicirculare. Elytra ad humeros rectiora.

164. Haltica subatra, n. sp.

\textit{H.} atra, vix submetallico tincta, nitidiuscula; capite coriaceo et distincte punctulato; prothorace elytrisque dense et parum profunde punctulatis, illo ad latera (subaequaliter rotundata) distincte, ad basin (saltam in medio) haud margino, sed ante basin in medio obsolete transversim impresso, angulis anticus subito et conspicue incrassatis, his oblongis (ad humeros paulo rectioribus, aut minus rotundatis); antennis subgracilibus, nigrescentibus, fere concoloribus (ante basin obsolete dilutoribus), ar\textsuperscript{a} ult\textsuperscript{a} subovato; pedibus nigrescentibus, tarsiis (presertim ad basin) paulo dilutoribus.—


\textit{Habitat} S. Iago; in foliis \textit{Sinapis nigrae} deprehensa.

Taken by myself, off plants of \textit{Sinapis nigra}, at San Domingos, in the interior of S. Iago—in company (I believe) with the last species. It may readily be known by its intensely black hue (which is almost free from even the faintest trace of a submetallic lustre), more deeply punctured surface (even the head being distinctly punctulated), rather larger scutellum, straighter elytra (which are a little less rounded-off, or more rectangular, at the shoulders), and by the third joint of its antennae being, if anything, a trifle shorter than the second. Its prothorax also (which is somewhat more equally rounded at the sides) has the anterior angles more abruptly thickened, and is un-margined in the centre behind—though with an obsolete transverse impression just in front of the base.

The present \textit{Haltica} may be regarded as the representative in these islands of the common European \textit{H.} \textit{atra}, though I do not think that it can be looked upon as any geographical modification of that species—being not only smaller and altogether less deeply sculptured, but with its prothorax (which is narrower and less developed) provided with an obsolete transverse impression at the base, instead of with a curved

\* From the common European \textit{H. nigripes}, the \textit{varic peace} differs (\textit{inter alia}) in its smaller size, slenderer limbs, highly-polished, unsculptured forehead, and less laterally rounded prothorax.
one towards either hinder angle, with its elytral punctures without any (or scarcely any) tendency to be arranged in longitudinal rows, and with the subbasal joints of its antennae much less evidently pale.

(Subgenus Aphthona, Chev.)

165. Haltica laevissima, n. sp.

*H. breviter ovata*, atra (obsoletissime, vix perspicue, subpiceo tineta), nitidissima; capite prothoraceque fere impunctatis (hoc, oculo fortissime armato, punctulis minutissimis irrorato), hoc ad latera (rotundata) distincte, ad basin tenuissime marginato, angulis antecis conspicue subito incrassatis; sentello majusculo, semicirculari; elytris obsoletissime, minute et levissime seriatim punctulatis; antennis pedibusque gracilibus, testaceis, illis versus apicem femoribusque posticis picescentibus.—Long. corp. Hn. \[\text{vix } 1]\.

*Habitat* S. Antão, S. Vicente, S. Nicolão, S. Iago, Fogo, et Brava; praesertim inter *Euphorbias* degens.

*Obs.*—Species *H. euphorbia*, Europæa, minor, brevier, ac multo magis atra, elytris multo levius sculpturatis—punctulis sc. minutissimis, levissimis sed (oculo fortiter armato) in seriebus longitudinalibus evidenter dispositis (nee confusis), necnon antennis pedibusque gracilioribus, pallidioribus.

A small and dark *Aphthona* which appears to be universal throughout the Cape Verde group, having been obtained in all the islands which have yet been explored. Although found on various plants, it is more particularly attached to the *Euphorbia Tuckeyana*; and we may expect, therefore, to meet with it wherever the latter still remains. It was first captured by Mr. Gray, in February 1864, in S. Nicolão; and, during our late expedition, it was taken both by him and myself, independently of altitude, in S. Antão, S. Vicente, S. Iago, Fogo, and Brava. It seems to occupy the place in this archipelago of the Canarian *H. Paiwana*.

The *H. laevissima* may be known by its small size, short, ovate outline, almost unpunctured, highly-polished surface, and by the dark hue of its head, prothorax, and elytra—its limbs (except the infuscated apex of the antennae, and the two hinder femora) being pale. Although its colour is black, there is likewise a just appreciable piceous, though hardly metallic, tinge; and the punctation of its prothorax is so minute as to be quite inappreciable except under a very high magnifying-power, whilst that of even its elytra is *extremely* light and fine—though, at the same time, disposed (as will be seen, when closely inspected) in longitudinal lines.
166. Haltica signatifrons, n. sp.

*H. oblongo-ovata*, pallida, nitida; capite prothoraceque fere impunctatis, illo rufo-testaceo, inter oculos lineâ transversâ arcuatâ (carinulam simulante) notato, hoc testaceo; scutello majusculo, semicirculari, piceo-testaceo; elytris saturate pallido-testaceis, minutissime alutaceis ac laevissime confuse punctatis; antennis (breviusculis, gracilibus) pedibusque pallido-testaceis, illis versus apicem femoribusque postiscis picescentibus.—Long. corp. lin. 1¼.

*Habitat* S. Antão, et S. Iago; in inferioribus intermediis, rarior.

The present *Aphthona* is very much larger than the preceding one, and (instead of being black) is pallid. Its head (which is marked with a coarse semicircular line, having at first sight more the appearance of a keel, between the eyes) is reddish-testaceous, its prothorax (which is likewise unsculptured) is testaceous, and its elytra (which are very lightly and confusedly, though thickly, punctured) are a shade paler still. The two hinder femora, however, are piceous; and the antennæ are a little infuscated towards their apex. Judging from a type now before me, it seems very close to the *flaviceps*, Allard, from the south of France; nevertheless the prothorax is almost, if not entirely, impunctate (even when viewed beneath the microscope), the punctures of its elytra are more dense, and its arcuated frontal line is much coarser and more defined.

The *H. signatifrons* is apparently scarce, though widely spread over the archipelago—where it occurs independently of elevation. It was beaten off *Artemisia gorgonum* by Mr. Gray, in the Ribeira Fria, in S. Antão; and we likewise took it near the Villa da Praia in S. Iago, in the interior of which island I subsequently met with a single specimen (in the Orgãos ravine).

Genus 113. **LONGITARSUS**.


167. **Longitarsus stenocyphon**, n. sp.

*L. elongato-ovatus*, subnitidus; capite (labro nigrescente excepto) rufo-testaceo, impunctato; prothorace brevi, testaceo, fere impunctato (oculo fortissime armato, minutissime parce punctulato), postice rotundato sed angulis posticis paululum incurassatis, ad latera in medio subangulato; scutello pico-testaceo; coleopteris infuscate pallido-testaceis, per suturam in medio, necnon in macula media discei utrinque positâ, nigrescentibus, distincte sed confuse punctatis, profunde striatis (sed striis internis antice subevanescentibus); antennis pedibusque elongatis, illis nigrescentibus, ar-
Halticid.E.

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ticulis 3 basalibus pedibusque testaceis, femoribus posticis versus apicem picescentibus.—Long. corp. lin. $1\frac{1}{3}$—$1\frac{2}{3}$.

Habitat S. Vicente; ad plantas Echii stenocyphonis, Webb, in editoribus hinc inde vulgaris.

I am extremely doubtful whether this *Longitarsus* should be regarded as more than a geographical state of the Canarian *L. persimilis*, with which it seems to agree in nearly everything except colour; whilst even as regards that, the two insects are alike in their testaceous prothorax, and the black patch with which the disk of each of their (still paler, though more or less obfuscated) elytra is marked. In the Cape Verde species, however, the head is less darkened (as also a trifle less roughened transversely); and the elytra not only want the black *humeral* blotch which distinguishes the *persimilis*, but their suture also (instead of being blackened throughout almost its entire length) is dark from merely a little before to somewhat behind the middle. Its two posterior femora, likewise, are less obscured.

The *L. stenocyphon* has been captured hitherto only in the higher districts of S. Vicente, where it was met with by Mr. Gray and myself on the ascent (as well as on the summit) of Monte Verde. It was only on the *Echium stenocyphon*, Webb, that it was to be obtained; so that we may expect it to occur in most places where that plant is found. Its near Canarian ally, the *L. persimilis*, frequents, in like manner, the *Echia* of that archipelago.

168. *Longitarsus laxicornis*, n. sp.

*L. precedenti affinis, sed vix ejus varietas insularis; differt præcipue corpore subangustiore, colore omnino obscuriore (minus testaceo), antennis paulo longioribus (articulis intermediis sensim magis elongatis ac paululum magis linearibus), prothorace vix minus transverso, densius evidentiusque punctulato necnon minute ruguloso, elytris subconvexioribus, angustioribus, ad humeros et latera paulo magis rotundatis, minus evidenter striatis ac multo obsoletus maculatis (sc. per suturam necnon in nebula mediae discali suffusâ utrinque sitâ indistincte infuscatis), pygidio pallidioribus, rufo-ferrugineo (unc piceo), sed femoribus posticis obscurioribus.—Long. corp. lin. $1\frac{1}{2}$.*

Habitat S. Nicolão; à Dom. Gray semel tantum deprehensus.

Having but a single example, from which to judge, of this *Longitarsus* (which was captured by Mr. Gray, during February 1864, in S. Nicolão), I at first suspected that it might possibly be but an insular variety of the last one; nevertheless a closer examination has
brought so many small distinctions to light that I cannot feel sure that it belongs to even the same exact group, of Echium-infesting species. Not to mention its darker (or more brownish-testaceous) hue, it is altogether narrower than the *L. stenocyphon*, and its elytra are less parallel (or more attenuated both before and behind)—being appreciably rounder both at the shoulders and sides. Moreover the black patch with which the *L. stenocyphon* is so conspicuously adorned on the disk of each of its elytra is here so faintly indicated by a suffused dusky cloud that I am a little doubtful whether the species can strictly be defined as "maeuluted" at all—though I am inclined to suspect that more highly coloured individuals would have a portion of the suture, and a central dash on either side, darkened. In other respects, its elytra are less deeply striated than is the case in the *stenocyphon*; its prothorax is less transverse, more thickly and evidently punctulated, and *minutely rugulose*; its pygidium is rufoferruginous, instead of piceous; its two posterior femora are more infuscated; and its antennae are a little longer—their intermediate joints being not only somewhat more lengthened, but also (particularly the subapical ones) narrower and more filiform.

Genus 114. **ARGOSOMUS** (nov. gen.).

*Corpus fere ut in Sphceroderma* (i.e. hemisphaericum, vel rotundato-ovale) sed minor, *capite prothoraceque angustioribus, oculis antennisque magis approximatis, coleopteris ad basin prothorace latioribus ac profunde sinuatis, ad humeros obtuse rotundatis, antennis pelibus- que gracilioribus, illarum articulis brevioribus, *tibis* gracilibus, linearibus, rectis, inarmatis, *tarsis* gracilibus (nee ad basin dilatatis).

*Ab υργός, velox, et σάμα, corpus.*

I have ventured to propose a separate genus for the insect described below, since it certainly cannot be referred to *Sphceroderma* (which seems to me to be its most nearly allied form), and it recedes still further from *Argopus* (with which, also, it has something in common). In its subhemispherical body, finely but sharply punctulated surface, and rufocastaneous hue it partially resembles *Sphceroderma*; but the species before me is smaller, and perhaps a little less convex, than the members of that group, its antennae (which are shorter and slenderer) are more approximated at their insertion, and its elytra are wider anteriorly—being conspicuously broader at their base than the prothorax, a good deal sinuated, and with the shoulders obtusely rounded (a structure which gives the insect somewhat the outline of an *Epilachna*). Its legs, moreover, are much
slenderer than those of *Sphaeroderma*—the tibiae especially being narrower, more linear, and less developed, and the tarsi (which are a little longer) undilated at their base.

169. **Argosomus epilachnoides**, n. sp.

*A. rotundato-ovalis, convexus, nitidus, rufo-castaneus, antennis ad basin pedibusque testaceis; capite impunctato; prothorace sat minute et parce punctulato, postice latriore, ad latera marginato ac leviter oblique rotundato, angulis antecis paululum incassatis, postice in medio obsolete longitudinaliter foveolato; scutello distincto, subtriangulari; coleopteris prothorace latioribus, basi sinuatis, ad humeros obtusus rotundatis, ad latera rotundata distincte marginatis, evidentius sed parce punctulatis (punctulis inter se subconfusis, aut obsolete subseriatim dispositis), intra humeros subcallosos inaequalibus; antennis breviusculis, versus apicem nigrescentibus, basi pedibusque saturate testaceis.—Long. corp. lin. vix 1½.*

*Habitat* Brava; in intermediis (juxta oppidulum Povoação) semel captus.

Apart from the structural features above alluded to, the rounded-oval outline, convex body, reddish-chestnut hue, and shining, rather distantly (but sharply) punctulated surface of this insect, which has the apical half of its antennæ almost black, while the basal portion and the legs are testaceous (with here and there a slightly obscurer, or picescent, tinge), will sufficiently distinguish it. My single example I took, at a tolerably high elevation, in Brava—amongst dry vegetable detritus, in a Banana-ground, at the foot of the more or less perpendicular mountains close to the Povoação.

170. **Argosomus obscuripennis**, n. sp.

*A. præcedenti simulis, sed paulo major, etiam subconvexior et omnino obscurior (sc. in capite prothoraceque rufo-piceus sed in elytris fere niger), nitidissimus, prothorace sublatiore, in medio integro (nee postice longitudinaliter foveolato), sed (an semper?) fovea rotundatâ mediâ inter discum et latera utrinque impresso, elyтроrum punctis subremotioribus ac paululum evidentius subseriatim dispositis.—Long. corp. lin. 1½.*

*Habitat* S. Antão; à cl. H. Dohrn, M.D., semel repertus.

As in the case of the last species, I have but a solitary example of this *Argosomus* from which to form an opinion; nevertheless I think it possesses too many peculiarities of its own to warrant the suspicion that it is any mere insular state of the former. Thus (judging from this single individual) the *A. obscuripennis* would seem to be
basi fere ad suturam, mox pone apicem, ductâ) paulo latiore, nigro ornatis; antennis brevissimis, testaceo-piceis; pedibus testaceis.

Variat elyris ad basin ipsam (juxta scutellum) obscure albido tinctis, in limbo concoloribus (nee angustissime nigris), et linea arcuata discali usque ad suturam ipsam (mox pone apicem) ductâ.—Long. corp. lin. 2–2½.

Cheilomenes vicina, Dej., Cat. 459 (1837).

Cydonia vicina, Muls., Sécurip. 440 (1851).

Habitat S. Antão, et S. Vicente; in intermediis editoribusque, hinc inde sat vulgaris, præsertim floribus foliisque Cassiae hicsuplaris gaudens.

Judging from the published description, I have no doubt whatever that this beautifully-striped Cydonia is the C. vicina of Mulsant's monograph—a species which is recorded from Egypt, Nubia, Senegal, and Guinea, and which would appear therefore to have much the same geographical range as the Exochromus nigripennis, described below. It is not uncommon in the intermediate and rather lofty districts of S. Antão and S. Vicente, but it has not yet been observed elsewhere throughout the archipelago. In the former of those islands it was taken by Mr. Gray and myself in the Ribeira Fria, and towards the head of the Ribeira das Patas; and in the latter at Madeiralzinho, and on the summit of Monte Verde. It was found more especially by Mr. Gray; and although he brushed it off various plants (such as the Artemisia gorgonum &c.), it was the shrubs of the Cassia bicepsularis that he obtained the greater number. From S. Vicente it has, also, been communicated by Mr. Miller and the Barão do Castello de Paiva.

There is little fear of confounding the C. vicina with anything else enumerated in this volume,—its whitish-yellow head and prothorax (the latter of which is ornamented with a large, broad, and somewhat obtriangular black patch immediately behind its anterior excavation, connected by a short peduncle with a wide band which covers the entire base), its dark scutellum, and its orange-coloured, rounded elytra (which have their suture, an arcuate stripe down the middle of each, parallel to the outer margin, and usually also the extreme outer edge itself, black) being more than enough to distinguish it.

Genus 117. EXOCHROMUS.
Redtenbacher, Tentam. 11 (1844).
173. Exochromus nigripennis.

E. subhemisphaericus, nitidus, (nisi oculo fortissime armato) quasi impunctatus; capite prothoraceque late sanguineo-testaceis; scutello et coleopteris (basi emarginatis et ibidem prothorace latioribus) nigris; epistomate antice leviter emarginato, utrinque in genas rotundatas facile mergente; antennis pedibusque rufo-testaceis.—Long. corp. lin. 1½—vix 2.


Habitat S. Iago, et Fogo; in apricis inferioribus intermediisque, ad plantas, rarissimus.

The bright, immaculate, reddish-testaceous head and prothorax, and totally black elytra, of this beautiful Exochromus, combined with its rounded outline and almost unpunctulated surface, will abundantly distinguish it. It is apparently extremely scarce—occurring, on various plants, in sunny spots of low and intermediate altitudes. It was beaten by Mr. Gray off the blossoms of Calotrupis procera near the Villa da Praia in S. Iago, and by myself (from amongst the herbage) at the Monte Nucho in Fogo. It is probable however that at a different season of the year it would be more general throughout the Group, inasmuch as it seems to be a species of a wide African range—having been recorded in Egypt, Nubia, and Senegal. Indeed I myself possess an Egyptian example, taken by the late Mr. Melly*.

Genus 118. COCCINELLA.


174. Coccinella 7-punctata.


Habitat S. Antão, S. Vicente, Fogo, et Brava; passim.

* The E. nigripennis was first described by Erichson in his Paper on (supposed) "Angolan" Coleoptera; and it is consequently recorded by Mulsant as occurring in Angola. But since a large number of the species enumerated in Erichson's memoir were in reality from the Cape Verdes (the collector, sent from Berlin, having touched at those islands on his outward route, whilst his material from the two regions was afterwards mixed up indiscriminately), and since the insect appears to range across the African continent at a higher latitude than Angola, I think that further evidence should be required ere we admit for it a habitat so far to the south.
The common *C. 7-punctata*, which possesses such a wide geographical range, and which is universal in the Madeiran and Canarian Groups, will probably be found to be equally universal in the Cape Verde archipelago. Hitherto however it has been noticed in only four of the islands—having been obtained by Mr. Gray and myself in S. Antão and S. Vicente, by myself in the lower districts of Fogo, and by Mr. Gray in Brava. It is not generally very abundant; but we saw more indications of it in S. Vicente than elsewhere, it being in comparative profusion on the summit of Monte Verde; and it has also been communicated from thence by the English Consul, Mr. Miller. It seems quite independent of elevation; for in S. Vicente I observed the remains of it in arid spots near the sea, and in Fogo beneath the succulent plants of *Zygophyllum* which trail over the hot sandy slopes at the base of the basaltic cliffs close to the Porto da Luz.

A single specimen was captured by the Rev. R. T. Lowe at a very lofty altitude in Fogo (namely on the elevated scoriaceous region, known as the Chão da Relva, adjoining the volcanic cone) which is a little smaller and narrower than the ordinary type, and has its eflyral punctules still less distinct (indeed almost obsolete); but I cannot detect any character about it of sufficient importance to lead me to suppose that it represents more than a slight variety, or state, peculiar to those upland tracts.

175. *Coccinella artemisiae*, n. sp.

*C. ovalis*, albido-flava (*aut straminea*); capite prothoraceque nitidisimis, subdiaphanis, ( nisi oculo fortissime armato) fere impassatis, hoc brevi, ad latera subaequaliter rotundato, recurvo-explanato et (um à cum margine antico) pellucido, utrinque malcelato-inæquali, in disco postico obsolete fulvescente (interdum fere trinebuloso); scutello minutissimo; coleopteris prothorace latiortibus, paulo minus nitidis, et multo evidentius sat profunde punctulatis, per suturam obsolete fulvescentibus, et utrinque in maculis 8 parvis (sc. 2 max pone basin, 3 in medio, 2 longe pone medium, et 1 ante apicem, sitis) nigro ornatis; antennis pedibusque flavo-testaceis.

*Variat* maculis plus minus incrassatis, necnon elytris singulis pone medium interdum tribus ( nec duabus solum) ornatis.—Long. corp. lin. 1$\frac{1}{4}$–1$\frac{3}{8}$.

*Habitat* S. Antão, S. Iago, Fogo, et Brava; præcipue ad arbuculas *Artemisia gorgonum*, Webb.

The pale, whitish-yellow (or straw-coloured) hue of this small, oval *Coccinella*, added to the eight subequal black spots with which each of its elytra is adorned, its extremely glossy, subdiaphanous, almost unsculptured head and prothorax, and its rather strongly
punctured elytra, will at once distinguish it. Its prothorax (which is very appreciably narrower than the elytra) is semitransparent, or subpellucid, along its extreme lateral and anterior margins—particularly the former, which are likewise a good deal recurved. It is widely spread over the archipelago, where it occurs independently of elevation—being more especially attached to the shrubs of the *Artemisia gorgonum*, which characterize certain districts in several of the islands.

The *C. artemisiae* was first detected by Mr. Gray (during March 1864) in the north of S. Antão, in which island we both of us met with it (during the following January)—in the Ribeira Fria, the Ribeira da Babosa, and towards the head of the Ribeira das Patas. Subsequently we brushed it off the *Artemisia*-bushes, at the Monte Nucho, in Fogo; and it was taken by Mr. Gray close to the Villa da Praia in S. Iago, as well as near the Povoação in Brava.

**Genus 119. SCYMNU**

*Kugelann, in Schneid. Mag. 515* (1794).

§ I. *Corpus majusculum; prothorace distincte punctato, basi in medio sinuato; scutello triangulari-scutiformi.*

176. *Scymnus carbonarius*, n. sp.

*S. breviter ovalis, niger, cinereo pubescens, sat profunde (præsertim in elytris) punctatus; prothoracis parte mediâ antescutellari vix productâ; antennis pedibusque in toto rufo-testaceis: subtus, præsertim in metasterno convexo, profunde punctatus.—Long. corp. lin. 1 1/4.*

*Habitat* S. Vicente; à Dom. Gray semel tantum lectus.

A single example of this *Scymnus* (which may at once be known from the other species here enumerated by its totally black body and rufo-testaceous limbs) was captured by Mr. Gray, during our late sojourn at S. Vicente. In its dark colour, rather large size, and deeply punctured surface it bears a strong *primâ facie* resemblance to the European *S. ater*; nevertheless it is a little wider and more rounded in outline than that insect, and its legs (instead of having only the tarsi pale) are entirely rufo-testaceous—including even the coxae and trochanters. The basal line, also, of its prothorax is, if anything, a trifle closer to the actual edge; and the central portion behind it, in front of the scutellum, is just perceptibly less sinuated or produced. In its totally pale legs, but otherwise black hue, it
agrees (I imagine) with the female examples of the European S. pygmoius; but it appears to be larger than the latter, and I have no evidence that its opposite sex would possess the pale head and prothorax which (according to the published diagnosis) distinguish that species.

177. Scymnus pallidulus, n. sp.


*Habitat* S. Antão, et S. Vicente; in intermediiis editioribusque hinc inde vulgaris.

A *Scymnus* which has been observed only in the two northern islands of the archipelago, S. Antão and S. Vicente—where, however, it appears to be rather common at intermediate and lofty elevations. It was taken in both of those islands by Mr. Gray and myself; whilst in the former of them it was met with likewise by Dr. H. Dohrn, and in the latter by Mr. Miller. It may easily be known by its concolorous, rufo-ferruginous hue—it being altogether free from markings, though occasionally a little infuscated in various parts. It is a trifle more oblong, or less rounded, than the preceding species; and its punctation is very much shallower, or more superficial. Judging from 44 examples which I have overhauled, it would seem to have no tendency to become maculated.

178. Scymnus nigropictus, n. sp.

*S. breviter ovalis,* cinereo pubescens, distincte punctatus (punctis sat magnis sed, præsertim in prothorace, levibus, circularibus): capite in maribus testaceo, in feminis subnigro; prothorace subnigro, ad latera in maribus late et clare, sed in feminis angustius et obscurius testaceo; elytris rufo-ferrugineis aut testaceo-rufis, ad basin (precipue in regione scutellari), per suturam (usque paulo ulterius), ad marginem lateralem (præsertim in medio), necnon in macula discalei (extus in marginem subsuffusâ), plus minus nigresco-centioribus; antennis pedibusque testaceis.—Long. corp. lin. 1 3/8—1 4/15.

*Habitat* S. Iago; ad flores foliaque plantarum in apricus inferioribus deprehensus.

Taken by myself and Mr. Gray, on various plants and shrubs (especially the *Callotrupis procera*), at a low elevation in S. Iago—in the Palm-grove which adjoins the eastern outskirts of the Villa da Praia. It
is quite as large as (if anything, perhaps, a trifle larger than) either of the preceding species; and it is more variegated with black and reddish-testaceous markings than any of the *Seymus* with which we have here to do; for its elytra not only have their entire basal portion and about two-thirds of their suture, but likewise the central part (or, sometimes, more) of their lateral margin, and a patch subconnected with it on either disk, more or less darkened and suffused. Its head and prothorax vary according to the sex—the former being testaceous in the males, but nearly black in the females; whilst the latter may be described as blackish in both sexes, but with the sides more broadly (and brightly) testaceous in the males than in the females. Its punctuation, also, is somewhat peculiar; for, when viewed beneath the microscope, the punctures (especially on the prothorax), although not deep, will be seen to be rather large, superficial, and very circular—the minute points out of which the hairs arise forming often a kind of centre for each separate circle. In the nine examples now before me, its specific characters seem to be tolerably constant.

In its general outline, and markings, the *S. nigropictus* has so much in common with the normal (or highly-ornamented) examples of the *S. canariensis* that we might almost suppose it to be a permanent geographical modification of that species, though, when closely inspected, it will be seen to possess many distinctive features of its own. Thus, apart from the slightly different type of its punctuation (which is readily appreciable when the two insects are placed under the microscope), its dark parts are less black, and less rigidly defined, than is the case in the *canariensis*, and the paler ones are rather more suffused; and its elytra have a deeper (and less triangular) portion at their base darkened, and their discal patch somewhat shaded-off externally into the blackish cloud along the middle of the outer margin—which last does not appear to be curved inwards posteriorly (so as to form an arcuate line which joins the suture just behind the extreme apex). The sides, also, of its male prothorax are much more broadly testaceous.

179. *Seymus posticus*, n. sp.

*S. praecedenti similis, sed paulo minor et vix rotundator, punctis omnibus sensim minoribus; capite ut in illo (sc. masculo pallido, feminine obscuriore) et prothorace nigro, ad latera latissime in maribus, angustius in feminis, testaceo; elyris letius rufo-testaceis (vel testaceo-rufis), in disco immaculatis, per suturem (sublate circa scutellum, sed hand in parte tota basali), necnon in regione postica subarcuata (interdum fere semicirculari) sub-
apicalli, plus minus nigrescentibus; antennis pedibusque saturate testaceis.

*Variet* clytris fere immaeulatis (se. per suturam et postice subconcoloribus).—Long. corp. lin. 1\(\frac{1}{6}\)—vix 1\(\frac{1}{4}\).

*Habitat* S. Antão, et Brava; hine inde minus frequens.

It is only in S. Antão and Brava that this *Scymnus* has hitherto been found—in the former of which islands it was met with by Dr. H. Dohrn, Mr. Gray, and myself, and by myself in the latter of them. It appears to be a little smaller than the *nigropictus*, and, if anything, a trifle rounder; and its punctures, although on the same superficial type, will be seen (when viewed beneath the microscope) to be less developed. It is by its elytral markings, however, that it may be most easily recognized,—merely the suture (instead of the whole anterior region), and a large arcuated cloud behind the extreme apex (which is itself pale), being darkened. The sutural stripe, although sometimes a good deal expanded in front (so as to shape out a triangular scutellary blotch), is never so much so as to reach the shoulders—and therefore, à fortiori, to cover a deep transverse portion at the base; the disk of each elytron is immaculate; and the pale parts are of a redder and clearer hue. I have inspected but 12 examples of it hitherto; and I may add that it is perhaps nearer, in reality, to the *S. floricola*—from which it mainly differs in the large, subareuate (or somewhat semicircular) cloudy dash which almost covers the hinder region of its elytra.

186. *Scymnus floricola*, n. sp.

*S. precedentane paululum oblongior; capite prothoracique ut in illo, sed prothorace vix subtilius punctulato necon postice in medio vix minus sinuato; clytris fere ut in illo, sed postice (ante apicem) concoloribus (nec nigrescentibus), per suturam à basi usque ad ulterius medium (plus minus latius circa scutellum), necon interdum anguste in medio marginis lateralis, nigris vel nigrescentibus; antennis pedibusque saturate testaceis.*

*Variet* clytris fere immaculatis, et (rarissime) prothorace toto pallido.

—Long. corp. lin. 1—1\(\frac{1}{4}\).

*Habitat* S. Iago, Fogo, et Brava; inter plantas ab orá maritimá usque ad locos editiores ascendens.

This is the universal *Scymnus* in the southern division of the archipelago, having been taken abundantly, by Mr. Gray and myself, in S. Iago, Fogo, and Brava—and occurring at all elevations, though principally at intermediate ones. After inspecting 109 examples of it, it seems to be rather variable in size, but tolerably constant in
markings; and although (as regards the latter) it bears a sort of analogy to some of the states of the Protan S. canariensis (as the nigropictus does to the highly-ornamental specimens of that insect), I nevertheless think that it can scarcely be regarded as any modification of either of the two preceding species—unless indeed (which it is scarcely possible to assume) the whole of these immediate Atlantic forms be but permanent phases of a single plastic type*. It descends to a smaller size than either of them, though the largest examples are quite as large as those of the S. posticus; and it is also a trifle more oblong, or less rounded. But, apart from this, the chief point which distinguishes it is that it seems to be perfectly free from any trace of the arenate subapical cloud which is always more or less conspicuous on the elytra of the posticus; and its prothorax is perhaps somewhat more finely punctured, and less sinuated in the centre of its base. The black sutural band is usually expanded in front (so as to form a triangular scutellary blotch), and there are generally traces of a small darkened portion about the middle of the lateral margin; nevertheless in occasional examples the elytra are nearly immaculate.

I cannot see that the present Scymnus differs specifically from an example in my possession which was taken by the late Mr. Melly in Egypt; so that, if the two be really identical, the S. floricola will probably possess a wide African range, and may perhaps be already characterized. Nevertheless I should add that I cannot identify it satisfactorily with any of the species in Mulsant’s monograph.

§ II. Corpus minusculum; oculis maximis; prothorace subtilius punctato, basi rectius truncato; scutello triangulari.

181. Scymnus fractus, n. sp.

S. ovalis, niger (aut subpiceo-niger), nitidissimus, grosse, longe et suberecte cinereo pubescent; prothorace subconcolori (aut ad latera vix dilutiore), minutissime et parce punctulato; elytris distinctius inaequaliter punctatis, singulis ad apicem, in macula subluniformi (in disco postico sita), in altera ovali longitudinali (intra discum posita), et in tertiâ minor obliquâ (longe ante humerum terminatâ), rufo-testaceis, ornatis; femoribus piccis, tibiis tarsisque saturate testaceis: subtus minutissime et (presertim in medio) parce punctulatus.—Long. corp. lin. 1.

Habitat S. Antão; inter quisquilias aridas in intermediis semel captus.

Obs.—S. maculosum, Canariensem, primâ facie simulans, et forsan

* The particular forms to which I allude are the S. durantae of the Madeiran Group, the canariensis, oblongior, and cercyonides of the Canaries, and the pallidulus, nigropictus, posticus, and floricola of the Cape Verde archipelago—all readily distinguishable inter se, but belonging nevertheless to much the same type.
ejus varietas geographica: differet præsertim corpore paululum ma-
jore (?), prothorace fere concolori, subnigro (nec ad latera late et
consiciue dilutioire), basi in medio minus sinuato, elytrorumque
singulorum macula sublaterali media omnino obsoletæ, nullæ, necnon
discalì subhumeraliqve inter se fractis disjunctis (hand suffusis),
illa subminore angustiore atque à margine basali magis remotæ.

The single specimen from which the above description has been
compiled I captured, by sifting dry rubbish, in the interior of S.
Antão; and it may easily be known by its black (or somewhat piec-
eous-black) hue, its highly polished and very minutely punctulate,
but silvery-pubescent, surface, and by its elytra being ornamented
with rufo-testaceo markings—their apex being pale, and also a sub-
luate patch behind the middle of each, as well as an oval (but longitu-
dinally-placed) spot on the inner disk, and another (smaller and ob-
ligne) which adjoins it, but pointing towards the shoulder. Although
with many small distinctions (which I have alluded to above), it so
nearly resembles the Canarian S. maculosus that I cannot feel sure
that it is more, in reality, than a permanent geographical state of that
species. It differs from it in its prothorax being concolorous (or not
dilated at the sides—at any rate in the sex now before me), and in
its elytra wanting the sublateral central spot which is always present
in the maculosus. The other patches, moreover, are not quite the
same as in its Canarian representative—the one on the inner disk
being a little smaller and narrower, further removed from the basal
margin, and entirely separated from (even though very close to) the
oblique subhumeral one*.

182. Scymnuus picturatus, n. sp.
S. præcedenti similis, sed subminor (?), magis ater, nitidissimus,
grosse, longe et subcrecte cinereo pubescens; prothorace ut in illo;
elytris vix parens et magis æqualiter punctatis, singulis ad apicem,
in maculæ sublunato-arcuata transversâ (in disco postico sitâ), in
altera lineari longitudinali (intra discum posita), et in tertiâ minore
obliqua (longe ante humerum terminata), vel in secundam mer-
gente vel disjunctâ, flavo-testaceo ornatis; pedibus corporeque sub-
tus ut in sp. præcedenti.—Long. corp. lin. 4–1.1
Habitat Fogo; in herbidis intermediius hand infrequens, ad Monte
Nuncio reprehensus.

* If (as already stated) the black-and-reddish Scymnus of the preceding Sec-
tion, in these three Atlantic archipelagos, may be regarded (however distinct
from each other) as belonging to much the same type; on the other hand, the
S. fractus, picturatus, and maritimus may in like manner be, as it were, affiliated
with the Canarian maculosus and the Madeiran flavopictus.
Of this beautiful little *Seymus* I captured thirteen examples, by brushing the vegetation, at the Monte Nucho, in Fogo. It is much on the same type as the *S. fractus*, but is of a more intense black, with its markings of a paler (or yellower) hue, and therefore more conspicuous or defined; and its elytra (the punctation of which is a trifle more remote and uniform—being less evidently composed of larger and smaller punctures intermixed) have the longitudinal patch down the inner disk of each narrower and *linear*, and often quite confluent with the oblique subhumeral one which adjoins it.

183. *Seymus maritimus*, n. sp.

*S. praecedentibus* duobus affinis, sed sensim minor, paulo minus nitidus, densius longinsque suberecete argentoe pubescentis, et ubique subcrebrius (sed in elytris paulo levius) punctalatus; elytris minus nigris (sepe omnino fusecescentibus), fere ut in *S. picturato* macularis sed maculis obscuris subobsoletis (interdum ægre observandis) et macula in disco postico subrotondata (nee transversa arcuata); pedibus corporeque subbus fere ut in sp. praecedenti.


*Habitat* S. Antão (var. β), et S. Vicente; sub quisquiliis in arenosis salinis, haud procul a mare ipso sitis, rarissimus.

I took five or six examples of this minute *Seymus* (which seems to be extremely rare, and of subsaline habits) on the low sandy flats immediately behind the sea-beach, about a mile to the south of Porto Grande, in S. Vicente. It was in company with the *Pentatomnus affinis*, under the small particles of triturated refuse which had been deposited in lines by the salt water which appears occasionally to overflow these level spots between the sandy hillocks and the shore. On the probability that this indicated its normal mode of life, I thought it not unlikely that it would prove to be at any rate congeneric with the *Ccelopterus salinus*—a small Seymnid which was detected in the south of France, and which is placed (in the recent Catalogues) in juxtaposition with *Seymus* proper; but I cannot see that it possesses either the structural or trivial characters which Mulsant assigns to that insect. Indeed this supposition is now rendered almost untenable from the evident affinity which it displays—in its markings, clothing, and sculpture—with the two preceding species, as well as with the *maculosus* of the Canarian Group and the *flavopictus* of Madeira.

A single example which I captured in S. Antão may possibly be the type of a closely allied species; but as it is hardly mature, I
cannot feel quite certain that its elytra (which appear totally imma-
culate) might not be obscurely spotted in more satisfactory speci-
mens. Still, since I believe that I met with it at a comparatively high
elevation, and far removed from the coast, I am inclined to suspect
that further material will tend to separate it from the S. maritimus ;
and therefore, if such should prove to be the case, I would then
propose for it (as above indicated) the title of obliterator.
The S. maritimus may be known by its diminutive size, by the
course, dense and suberect silvery pubescence with which it is
clothed, and by its elytra (which are often much diluted in hue, or
fuscescent) being so obscurely ornamented with paler markings that
the latter are sometimes scarcely traceable. When sufficiently so,
however, to be properly observed, it will be seen that the patches
are in much the same positions as those of the picturatus and fractus
—though the one on the hinder disk of each elytron appears (so far
as I can judge) to be rounded, instead of transverse and arcuate.

184. Scymnus inconspicuus, n. sp.
S. breviter ovalis, niger, nitidus, suberecte cinereo pubescens; pro-
thoraee subecomolorii (ad angulos antices solos paulo dilutiores),
una cum elyris distincte et argute punctulato; his saturate rufo-
ferrugineis, in regione scutellarii usque ad suture medium late et
suffuse triangulariter nigrescentibus, necnon etiam in margine
laterali paulo nebulosis; femoribus nigro-piecis, tibias tarsisque
saturate testaceis; metasterno transversim ruguloslo, postice con-
vero.
Variet elyris omnino obscuratis, pieco-nigrescentibus, postice solum
paulo diluitoribus; vel (immaturus) colore omnino pallidiorum,
plus minus olivaceo-ferrugineo.—Long. corp. linu. circa 3.
Habitat S. Antão, S. Iago, et Fogo; inter quisquillas aridas in infe-
rrioribus intermediisque lectus.

A small Scymnus, much about the size of the European S. mini-
mus, though belonging to a totally different type. It may be known
by its short oval outline and pubescent surface; by its head and
prothorax being almost wholly black, whilst its elytra are of a dull
rufescent colour—but more or less largely (and gradually) darkened
anteriorly by a suffused blackish cloud, forming a triangular patch,
which is broad at the base, and extends (at its apex) to about the
middle of the suture. Their lateral edge is usually a little obscure
likewise; and these clouded portions are at times tolerably well ex-
pressed, though more frequently shaded-off imperceptibly into the
paler ones. In occasional examples, indeed, they are so much dif-
fused as to render the entire elytra nearly dark. Its punctures, although small, will be seen (when viewed beneath the microscope) to be not only considerably larger than those of the preceding three species, but also comparatively deep and sharply defined.

The *S. inconspicuus* is widely spread over the archipelago, where perhaps it will be found to be nearly universal, though hitherto it has been detected only in S. Antão, S. Iago, and Fogo. It is however, decidedly scarce; and the few examples which I have seen (eleven in number) were taken by myself—for the most part (if not entirely) beneath dry vegetable detritus at low and intermediate altitudes, but never in saline spots like the *S. maritimus*. The majority of my specimens are Fogo ones, and were captured amongst the small triturated rubbish which had accumulated under the succulent plants of *Zygophyllum* on the hot sand slopes at the base of the sea-cliffs close to the Porto da Luz; but the S. Antão and S. Iago ones were met with (so far as I can recollect), by sifting, in the interior of those islands, at a much loftier elevation*.

185. *Scymnus depressiusculus*, n. sp.

*S. suboblongus*, minus convexus, depressinusculus, fusco-testaceus, nitidus, brevius et demisce cinereo pubescentis; capite paululum minus deflexo; prothorace latiusculo, minutissime leviter punctulato, in disco suffuse paulo obscuriore; elytris subparallelis, postice pygidio sensim brevioribus, distinctius punctulatis, vel conceoloribus vel antice circa scutellum obsolete obscuratis; pedibus conceoloribus: subtus paulo picosecentior, metasterno minus convexo et in medio vix punctulato.—*Long. corp. lin. $\frac{3}{4}$*—vix 1.

**Habitat** S. Iago, et Fogo; in apricus inferioribus rarior.

Three examples only of this very distinct little *Scymnus* have as yet come beneath my notice. Two of them I captured in S. Iago (I believe, at a low elevation near the Villa da Praia), and the other (in company with the last species) close to the Porto da Luz in Fogo. It is rather larger than the *S. inconspicuus*, less convex, and very much more oblong. Indeed this latter peculiarity, in conjunction with its somewhat less deflexed head, its pale, brownish-testaceous hue (the disk of its prothorax being alone obfuscate), its finer and

* Although totally distinct from it, the *S. inconspicuus* bears a certain analogy to the Canarian *S. cersyonides*; but it is a little smaller and rounder, with its pubescence longer and more cinereous, its prothorax more truncated at the base (being less sinuated, or produced, in the middle), its scutellum relatively larger, its elytral punctures very much finer, and the reddish portion of its surface is altogether darker and more suffused. In reality, indeed, I believe that the *cersyonides* belongs to a different type—being, rather, a small member of the *canariensis*, *nigropictus*, *posticus*, and *floricola* group.
more depressed pubescence, its widish and very minutely punctulated prothorax, and the fact of its elytra being perceptibly shortened behind, so as to expose the apex of the pygidium, will more than suffice to separate it from the other Scymni here enumerated.

Fam. 42. TENTYRIADÆ.

Genus 120. HEGETER.
Latreille, Hist. Nat. iii. 172 (1802).

186. Hegeter tristis.
Blaps tristis, Fab., Ent. Syst. i. 108 (1792).
Hegeter elongatus, Woll., Ins. Mad. 510, tab. xi. f. 7 (1854).
— — —, Id., Col. Atl. 395 (1865).

Habitat S. Antão, S. Vicente, S. Iago, Fogo, et Brava; sub lapidibus, necnon in cavernis tufae, hinc inde congregans.

The H. tristis is found in all these Atlantic Groups—to which, although now met with likewise on the opposite coast of Africa, it was perhaps originally peculiar. It occurs at the Azores, and is universal throughout the Madeiran and Canarian archipelagos; and we may be pretty sure that it is equally universal in the Cape Verde islands, though hitherto it has been captured in only five of them. It is independent of elevation, but more especially abundant perhaps in the lower districts—where it congregates beneath stones, and in open basaltic caverns towards the coast. It was taken in S. Antão by Dr. H. Dohrn and myself; in St. Vicente by myself, Mr. Gray, the Rev. Hamlet Clark, and Mr. Miller; and by Mr. Gray and myself in S. Iago, Fogo, and Brava. From Fogo it has likewise been obtained by the Barão do Castello de Paiva.

Apart from its larger size, more appreciably striated, basally-margined elytra, and various other characters, the H. tristis may at once be known from the numerous Oxycara described below by the structure of its mesosternum, its anteriorly simple (or uncimacrocnated) clypeus, and by its scutellum being conspicuous and transverse.

Genus 121. OXYCARA.
Solier, Ann. de la Soc. Ent. de France, iv. 254 (1835).

Instrumenta cibaria fere ut in Hegetere, sed mandibula dextra margo externus in dentem medium multo longiore supra productus; palporum labialium ant. ult. paulo minus incrassatus; uncus lobi

I have thought it desirable to give the above comparative diagnosis of Orycara (drawn out after a careful examination of ten species and 400 specimens), in order to indicate the exact points in which it differs from Hegeter; for since its numerous exponents would seem to occupy just the same position throughout the Cape Verde archipelago that the Hegeters do in the Canarian Group, it is important that we should know precisely what the distinctions are which separate them from the latter. At first sight, indeed, they have so much in common with Hegeter that they might well be supposed to constitute a mere section of that genus; yet, when accurately overhauled, they will be seen to possess characters which are abundantly sufficient to render their isolation a matter of necessity. Perhaps their most remarkable feature is the structure of their mesosternum—which (instead of being as in Hegeter, obtriangular and curved inwards, and widely scooped out anteriorly for the blunt sternal lobe to be applied against) is thick and flattened (or horizontal), and almost a parallelogram in outline, though cleft in front to receive the comparatively acute and more produced apex of the prosternum. This particular shape causes the base of the mesosternum to be wider than in Hegeter (where it is scarcely more than the apex of a reversed triangle), and consequently the rounded portion of the metasternum (between the posterior coxae), against which it rests, to be more broadly and straightly truncated.

Next to the peculiarity of the mesosternum (which removes them from all the other known members of the Tentyriadae), the most appreciable character which separates the Orycara from the Hegeters is
the absence of a visible scutellum and the unmargined (and less sinuated) base of their elytra. In one or two species indeed the former is occasionally *just* perceptible, in the shape of a most minute triangular point; but it never makes the slightest approach to that of *Hegeter*—which is conspicuous, transverse, and thickened, so as to constitute a portion of the incrassated elytral edge. Then the head has a longitudinal costiform plait immediately within either eye, and the elytpen (as in *Thalpophila*) is produced in front into a little central nubro. The prothorax also is much less evidently (sometimes, indeed, not at all) margined behind, and has the lateral segments (or *propleura*) of its underside very coarsely and longitudinally strigose, or sulcated—a sculpture, however, which is *faintly* recognizable in many of the Hegeters and allied forms. The penultimate abdominal segment is shorter than in *Hegeter*; and the terminal articulation of the antennae is even still smaller.

The oral organs of the whole of these allied genera are so nearly on the same type that it would be unreasonable to look to *them* for any marked peculiarities: yet there are, nevertheless, in the case of *Oxy Cara*, many small items in which they differ from those of *Hegeter*. Thus, for instance, the last joint of the labial palpi is sensibly less thickened, the mentum is straighter at the sides, and the right mandible has the great central tooth which branches off from the upper surface of its outer edge much more prominent and elongate.

With the many peculiarities thus indicated, there can be little doubt that *Oxy Cara* is positively and aboriginally distinct from *Hegeter*; and although it manifestly *represents* the latter (so abundant throughout the Canarian Group) in the Cape Verde archipelago, nevertheless we are still further debarred from supposing that it can be any mere *geographical modification* of it by the fact that *Hegeter also*, in its genuine and unaltered form (though only, as hitherto observed, in a single species), has every appearance of being equally indigenous amongst these same islands.

187. *Oxy Cara hegeteroides.*

*O. elongato-ovata*, atra, submitida, in capite profunde, dense et rugose, in prothorace minutius, minus dense et multo levius (tamen argute), sed in elytris minutissime, pare et levissime punctulata; prothorace coleopteris angustiores, subconico, ad latera anterius subrotundato, postice subsinnato, angulis posticis aeniiusculis, basi in medio transversim plus minus impresso (quare ibidem ad basin
extremam quasi subelevato); elyris convexit, vel (sæpimus) obso-
letissime lineatis vel simplicibus; pedibus longiusculis.

_Variet_ prothorace integro (postice nullo modo impresso).

_Var. β. affinis [an species?]._ Paulo minor, minus ovata, nitidior,
punctura (valde instabili) omnino profundiore, pedibus plerumque
minus elongatis.—Long. corp. lin. 31/4—5.


_Habitat_ S. Antão; ab orá marítimá (in statu typico) usque ad sum-
mos montes (plerumque, nisi fallor, in var. β) ascendens, sed
nusquam vulgaris.

This _Oxycara_ would seem to be peculiar to S. Antão, where it oc-
curs (though nowhere very abundantly) from the sea-level to the
summits of the mountains. It is considerably more variable, both
in size and the strength of its punctuation, than any of the other
species; but _on the average_ it is larger than most of them, and (in
conjunction with the _ebenina_) it has more of the outline of a _typical_
_Hegeter—as represented by the tristis and amaroïdes._ Although
usually finely sculptured, it may nevertheless, when contrasted with
its allies, be described as somewhat _strongly punctate—at all events_
 anteriorly, and particularly on the head; but the punctuation of the
latter, and of the prothorax, is in reality most inconstant. In its
outline it is elongate-ovate (or subattenuated in front, and rounded
behind the middle); and its prothorax, which is altogether narrower
than the elytra, is a trifle longer and more subconical than in the
generality of the species—though the sides are _comparatively pa-
allel (even whilst a little rounded anteriorly). The latter, moreover,
has its hinder angles sensibly acute, or produced; and although
sometimes entirely free from inequalities, it is _usually_ impressed
with a transverse _striga_ along its base—which causes the extreme
hinder margin to appear as though raised in the central part.

In its normal state (or that which accords with Erichson’s type)
the _O. hegeteroides_ was taken by Mr. Gray and Dr. H. Dohrn in the
north of S. Antão, and by myself (at Tarrafal) in the south. This
phasis of the species is on the average rather larger and less shining
than that which obtains in the higher regions, its punctuation is
finer, and its legs are more elongate. What I have treated as the
“var. β” seems to be merely a form which is gradually put on as
the insect ascends into the loftier districts. Under that guise it
appears to be a little smaller, more shining and strongly punctured,
a trifle less ovate, and with its legs less elongate, or developed;
but, despite the very opposite aspect of the extremes, I can detect
nothing of sufficient constancy and significance to serve for a specific character. This latter race I have met with in the Ribeira Fria, the Ribeira das Patas, the Ribeira da Babosa, and on the Campo Rando.

188. **Oxy cara ebenina**, n. sp.

_O. ovata et praecedenti subsimilis, sed minor, minus nitida (plerumque subopaca), puncturâ multo subtilliore (sc. in prothoracîs disco elytrisque à grege observanda); prothorace integro (nee postice in medio transversim impresso); antennis pedibusque brevieribus, illarum articulis (presertim tertio) consipie magis abbreviatis._


*Habitat* S. Vicente; sub lapidibus in locis editoribus degens.

Found in the higher elevations of S. Vicente—having been taken by Mr. Miller, Mr. Gray, and myself on the ascent, and summit, of Monte Verde. In its _ovata_ outline it agrees with the *hegeteroides*; but it is considerably smaller, and (relatively) rather less elongate, as well as more opake, its punctation is very much finer (indeed on the elytra and prothoracic disk scarcely traceable), and its limbs are shorter—the antennal joints (particularly the third one) being conspicuously more abbreviated.

189. **Oxy cara castanea**, n. sp.

_O. depressiuscula, rufo-picea ant potius castanea, subnitida, in capite distincte et argute, in prothorace minute et leviter, sed in elytris minutissime et levissime punctulata; prothorace ad latera anterius rotundato, postice rectiore et sensim angustato, angulis posticis argute subobtusis, ad basin subsummatâ, ante basin sepius transversim impresso; elytris depressis, vel (sepius) obsoletissime lineatis vel simplicibus; antennis pedibusque longiusculis._

*Variet* prothorace integro, neonon (_var. β_) rarius colore obscuriore, fere nigro.—Long. corp. lin. 3–4.

_Oxy cara hegeteroides, Woll. [nec Erich.], Ann. Nat. Hist. vii. 198 (1861)._ 

*Habitat* S. Vicente; in editoribus plerumque (sed vix copiose) occurrunt.

* The _O. hegeteroides_ and _pedinoides_ were both of them described by Erichson in his paper on (supposed) “Angolan” Coleoptera; but I have already stated that a large proportion of the latter were not from Angola at all, but from the Cape Verde archipelago; and there can be no kind of doubt that these two _Oxy caras_ came from the islands only. I say “only,” because the first of them is clearly confined to S. Antão, whilst even the second has but a slightly wider range; so that, manifestly endemic as they are, it would be preposterous to assume (simply on account of Erichson having recorded for them a _habitat_ which was erroneous) that they extend along the African coast down to Angola!
Easily known by its rather depressed body and rufo-piceous or (more properly) reddish-chestnut, hue, by its extremely fine and light punctation (that on the head, however, being rather sharper and more distinct), by its prothorax being somewhat narrowed (and obliquely straightened) posteriorly, and faintly bisinuated at its base, and by its limbs being slightly elongate. Its elytra are usually very obsolesly and obtusely striated; but sometimes they are free from all traces of longitudinal lines. It has been observed hitherto only in S. Vicente, where it occurs principally in the higher elevations—though occasionally at intermediate ones. It is far less abundant than the *O. pedinoides*, which teems everywhere; and it is chiefly on the ascent, and summit, of Monte Verde that I have myself met with it. It was taken, however, by Mr. Gray, and the Rev. Hamlet Clark, in 1856, at a lower elevation; and I obtained two examples of it at Madeiralzinho, but which differ from those of the lofter regions in being almost black. These latter constitute the "var. β" of my diagnosis.

In a paper on S. Vicente Coleoptera, published in 1861, I identified this *Oxycara* with the *hegeteroides* of Erichson; but I have received, since that date, from the late Dr. Schaum, one of Erichson’s types—which evidently belongs to the S. Antão species. It is true that this type was communicated under the name of "*helopoides, Erich.*" but as Erichson never published an *Oxycara* with that title, and the type agrees much more accurately than the present species does with the description of the *hegeteroides*, I feel quite satisfied that it was merely by a *lapsus calami* that Schaum wrote "*helopoides*" (instead of *hegeteroides*).

190. *Oxycara* pedinoides.

*O. oblongo-ovalis, atra, subnita, in capite prothoraceque sat distincte et argute, sed in elytris minute (tamen evidenter) punctulata; prothorace fere coleopterorum latitudine, ad latera aequaliter leviter rotundato, angulis posticis subrectis, punctulis in disco levioribus; elytris simplicibus, aut interdum obsoletissime (vix perepicue) sublineatis; antennis pedibusque breviusculis, illarum art. 2do crassiusculo, breviusculo, subobtriangulari (nee obconico).


*Habitat* S. Antão, et S. Vicente; in inferioribus intermediisque (praesertim illis) sub lapidibus occurrens. In ins. S. Vicente praeципae abundat.
The *O. pedinoides* is the common *Oxycara* of S. Vicente, where it abounds (beneath stones) in arid spots of low and intermediate altitudes. It occurs likewise in the neighbouring island of S. Antão, where however it appears to be scarce, and found only (so far as I was able to detect) at low elevations near the coast, under which circumstances I met with it at Carvoeiros and Tarrafal. In S. Vicente it is almost universal; and it seems to have been captured by everybody who has collected in that island—including Mr. Miller, Mr. Fry, Captain Hutton, Mr. Gray, the Rev. Hamlet Clark, the Rev. R. T. Lowe, and myself; and it was likewise obtained from thence by the Barão do Castello de Paiva.

The *O. pedinoides* is rather more strictly oblong, or oblong-oval, than the three preceding species—its prothorax (which is but slightly, and evenly, rounded at the sides, with the hinder angles nearly right angles) being generally of about the same breadth as the elytra; and these latter are more conspicuously (even though minutely) punctulate than is the case in any of the other forms here enumerated. Its head is somewhat deeply and sharply punctured; but the punctures of its prothorax, although distinct towards either side, are small and nearly evanescent on the disk. Its limbs are shortish; and the second joint of its antennæ is a trifle thicker, more abbreviated, and more obtriangular than in the allied species.

191. *Oxycara laevis*, n. sp.

*O.* præcedentis similis, sed vix ejus varietas insularis, usque ad statum satis minorem descendens, puncturâ omnino subtiliorem (se. in prothorace, lateribus exceptis, elytrisque ferre evanescente), elytris in medio vix magis rotundatis, antennarumque articulop paululum longiori ac sensim minus obtriangulari.—Long. corp. lin. 2f. 3f. 8f.

*Habitat* S. Nicolão; à Dom. Gray deprehensa.

Very closely allied to the last species, of which indeed it is just possible that it may be but a permanent insular state peculiar to S. Nicolão—in which island it was taken, during Feb. 1864, by Mr. Gray. Still, since the *pedinoides* retains its characters unimpaired in S. Vicente and S. Antão, and the present *Oxycara* is most easily separable from it, I do not see how we can treat the latter as a mere phasis of that insect.

The *O. laevis* differs from the *pedinoides* in its punctation being very much finer (indeed almost evanescent on the elytra, and on the greater portion of the prothorax), in its elytra being a trifle more rounded on either side in the middle, and in the second joint of its
antennæ being just appreciably less shortened, less thickened, and less obtriangular. It would seem likewise to be more variable in stature; for while some of the specimens are as large as those of the *pedinoides*, the smaller ones descend to a comparatively diminutive bulk.

192. **Oxyara cribrata**, n. sp.

*O. pedinoidem* simulans, sed paulo minus nitida, depressiuscula; capite et prothorace (ad latera subrectiore) multo profundius rugosisusque dense punctatis (punctis magnis et plus minus, præsertim versus latera, longitudinaliter subconfluentibus); elytris minute (tamen evidenter) subdente punctulatis, granulisque (sive tuberculis minutissimis) parce irrortatis.—Long. corp. lin. 3½–4½.

*Habitat* S. Iago; in inferioribus intermediis, præsertim illis, abundans.

The remarkable sculpture of the head and prothorax of this *Oxyara*—which are densely covered with very coarse punctures, having a conspicuous tendency (particularly towards the sides) to become longitudinally confluent—would, of itself, separate it from the other species here enumerated. In general size and outline it much resembles the *pedinoides*; but it is usually a trifle more opaque and depressed, with its prothorax somewhat straighter at the edges, and with its elytra a little less evidently (though perhaps, if anything, more closely) punctulate, and sparingly besprinkled with additional granules, or minute tubercles. It is the universal species in S. Iago—in which island alone it has hitherto been observed, and where it was taken by Mr. Gray and myself from the sea-level to a considerable altitude on the mountains of the interior.*

193. **Oxyara similis**, n. sp.

*O. pedinoidem* simulans, sed vix depressior, plerumque multo minus nitida, ac multo levius punctulata (punctulis in elytris prothoracisque disco minutissimis); elytris fere ut in *O. cribrata* (se. tuberculis minutissimis superadditis, præsertim postice, parce irritatis).—Long. corp. lin. 3–4.

*Habitat* Fogo; in inferioribus intermediis (præsertim illis) ubique vulgarissima.

* The *cribrata* is the only *Oxyara* that we met with in S. Iago (during our late expedition), in spite of the most diligent research; and therefore I feel almost confident that some examples of the *O. similis* which are included amongst Mr. Gray’s former S. Iago material (collected in 1864) were in reality from the neighbouring island of Fogo, where that species seems to be universal and peculiar, and that they were unintentionally mixed up with his specimens from S. Iago. Still, as I cannot be quite certain of this, I must just allude to the possibility of the *similis* being found in S. Iago.
Peculiar, I believe, to Fogo, where it is most universal and abundant,—having been taken by Mr. Gray and myself at low and intermediate altitudes; and it has likewise been obtained from thence, in great profusion, by the Barão do Castello de Paiva. True it is that some examples of it are labelled as coming from S. Iago, in the material which was collected by Mr. Gray in 1864; but as we were unable to detect any vestige of it in that island during our late campaign (its place being supplied by the O. cribrata), I feel almost confident that a mistake has accidentally arisen in Mr. Gray's habitat; and I think it safer, therefore, not to record the species as extending beyond Fogo.

In size, outline, and general aspect, the O. similis greatly resembles the pedinoides; but it is impossible to regard it as an insular modification of that species unless we are also prepared (which I certainly am not) to treat as phases of the latter the cribrata from S. Iago, the levis from S. Nicolão, and the irrata from Brava. It differs from the pedinoides, principally, in being a trifle less shining, just appreciably more depressed, and very much more finely punctulate; and in having its elytra (as in the last species) sparingly besprinkled with additional granules, or minute tubercles.

194. Oxycara irrata, n. sp.

O. præcedente plerunque paulo major, subopacior, ac sensim magis ovata; capite prothoraceque fere ut in cā; elytris sensim magis rotundatis, tuberculis minutis (aut quasi punctulis asperatis) æqualiter, argute et paulo grossius irroratis.—Long. corp. lin. 3–5.

Habitat Brava; ubique, sed præsertim in inferioribus, vulgaris.

This is the common Oxycara in Brava, where it swarms beneath stones at most elevations, though particularly at low ones. It was found by Mr. Gray and myself, in great profusion, on the dry slopes near the Porto da Furna. Although (like most of the species) variable in stature, it ascends to a rather larger bulk than any of the remainder (except perhaps the extreme ones of the O. hegeteroides, from S. Antão); and it is also a little more ovate, or rounded behind the middle, than the immediately allied forms. It may further be recognized by being somewhat opaque, and by its elytra being sharply, regularly, and distinctly beset with minute tubercles—which may perhaps be occasioned by obliquely-impinging, asperated punctules.
195. Oxycara asperula, n. sp.

*O. ovata*, *atra*, *depressiuscula*, *opaca*, in capite argute, sed in pro-
thorace (saltem in medio) vix punctulata; prothoracis linea basali
integra; elytris distincte lineatis, tuberculis minutis et minuti-
simis (his quasi punctulis asperatis effectis) sat dense et conspici-

*Habitat* Fogo; à el. Barone Castello de Paiva benigne communicata.

A single example of this *Oxycara* has been communicated by the
Barão do Castello de Paiva, by whom it was obtained from Fogo;
but whether it was met with at a high elevation (as I should be in-
clined to suspect), I have no means of determining. In its some-
what ovate outline, opake surface, and rather distinctly lineated
eytra, it is a little suggestive, at first sight, of the *Hegeter ama-
roides*; and it may be further known by its slightly depressed body,
by its prothorax being (at any rate in the middle) most minutely
punctulated, and by its elytra being roughened with small tubercles
—interspersed with others which are a trifle smaller still, and which
have the appearance of being occasioned by obliquely-impinged (and,
therefore, asperated) punctules.

196. Oxycara curta, n. sp.

*O. breviter ovalis*, *latiuscula*, *atra*, *convexiuscula*, *subnitida*, in capite
minute, sed in prothorace (saltem in medio) vix punctulata; pro-
thorace convexo, valde transverso, intra angulos posticos subrectos
interdum foveolato; elytris tuberculis minutissimis (aut potius
punctulis asperatis) equaliter et argute irrornatis; antennis brevi-
bus, articulis subapicalibus moniliformibus; tibis anticis vix sub-
arcuatis, apicem versus fortius dilatatis, necnon ad angulum ex-
lin. 3—3½.

*Habitat* Fogo; à Barone Castello de Paiva, unà cum specie præce-
dente, parce communicata.

In the rather shorter, and more moniliform, subapical joints of its
antennae, as well as in the structure of its anterior tibiae (which are
faintly subarcuate, and more conspicuously widened towards their
apex, with the external angle less truncated, or more porrect), the
present insect might almost be supposed to merit generic separa-
tion from the whole of the preceding Oxycaras—though I believe
that a careful inspection of it will show that it is merely the ex-
ponent of a somewhat different type in the same group. It is rela-
tively shorter, *wider*, and more rounded (or rounded-oval) than any
Peculiar, I believe, to Fogo, where it is most universal and abundant,—having been taken by Mr. Gray and myself at low and intermediate altitudes; and it has likewise been obtained from thence, in great profusion, by the Barão do Castello de Paiva. True it is that some examples of it are labelled as coming from S. Iago, in the material which was collected by Mr. Gray in 1864; but as we were unable to detect any vestige of it in that island during our late campaign (its place being supplied by the O. cribrata), I feel almost confident that a mistake has accidentally arisen in Mr. Gray’s habitat; and I think it safer, therefore, not to record the species as extending beyond Fogo.

In size, outline, and general aspect, the O. similis greatly resembles the pedinoides; but it is impossible to regard it as an insular modification of that species unless we are also prepared (which I certainly am not) to treat as phases of the latter the cribrata from S. Iago, the levis from S. Nicolão, and the irrata from Brava. It differs from the pedinoides, principally, in being a trifle less shining, just appreciably more depressed, and very much more finely punctulate; and in having its elytra (as in the last species) sparingly besprinkled with additional granules, or minute tubercles.

O. precedente plerumque paulo major, subopacior, ac sensim magis ovata; capite prothoraceque fere ut in ea; elytris sensim magis rotundatis, tuberculis minutis (aut quasi punctulis asperatis) equaliter, argute et paulo grossius irratis.—Long. corp. lin. 3–5.

Habitat Brava; ubique, sed præsertim in inferioribus, vulgaris.

This is the common Oxycara in Brava, where it swarms beneath stones at most elevations, though particularly at low ones. It was found by Mr. Gray and myself, in great profusion, on the dry slopes near the Porto da Furna. Although (like most of the species) variable in stature, it ascends to a rather larger bulk than any of the remainder (except perhaps the extreme ones of the O. heteroides, from S. Antão); and it is also a little more ovate, or rounded behind the middle, than the immediately allied forms. It may further be recognized by being somewhat opake, and by its elytra being sharply, regularly, and distinctly beset with minute tubercles—which may perhaps be occasioned by obliquely-impinged, asperated punctules.
195. *Oxycara asperula*, n. sp.

*O. ovata*, *atra*, *depressiuscula*, *opaca*, in capite argute, sed in pro-thorace (saltēm in medio) vix punctulata; prothoracis lineā basālō integrā; elytrī distincte lineātīs, tuberculis minutīs et minutissimīs (his quasi punctulis asperatis effectīs) sat dense et conspicue irrorātīs.—Long. corp. lin. 4¼.

*Habitat* Fogo; à cl. Barone Castello de Paiva benigne communicata.

A single example of this *Oxycara* has been communicated by the Barão do Castello de Paiva, by whom it was obtained from Fogo; but whether it was met with at a high elevation (as I should be inclined to suspect), I have no means of determining. In its somewhat ovate outline, opake surface, and rather distinctly lineated elytra, it is a little suggestive, at first sight, of the *Hegetera amaroides*; and it may be further known by its slightly depressed body, by its prothorax being (at any rate in the middle) *most* minutely punctulated, and by its elytra being roughened with small tubercles—interspersed with others which are a trifle smaller still, and which have the appearance of being occasioned by obliquely-impinged (and, therefore, asperated) punctules.

196. *Oxycara curta*, n. sp.

*O. breviter ovalis*, latiuscula, *atra*, convexiuscula, subnitīda, in capite minute, sed in prothoracē (saltēm in medio) vix punctulata; pro-thoracē convexō, valde transverso, intra angulos posticos subrectos interdum foveolato; elytrīs tuberculis minutissimīs (aut potius punctulis asperatis) equaliter et argute irrorātīs; antennīs brevibus, articulis subapicalibus moniliformibus; tibīis antīcis vix sub-arenatis, apicem versus fortius dilatātīs, necon ad angulum extermum minus truncatīs (sc. etiam subporrectīs).—Long. corp. lin. 3-3¼.

*Habitat* Fogo; à Barone Castello de Paiva, unà cum specie precedente, parce communicata.

In the rather shorter, and more moniliform, subapical joints of its antennae, as well as in the structure of its anterior tibiae (which are faintly subareuate, and more conspicuously widened towards their apex, with the external angle less truncated, or more porrect), the present insect might almost be supposed to merit generic separation from the whole of the preceding *Oxycaras*—though I believe that a careful inspection of it will show that it is merely the exponent of a somewhat different type in the same group. It is relatively shorter, *wider*, and more rounded (or rounded-oval) than any
of the other species here enumerated—its prothorax (which is convex, and with its punctules almost inappreciable except at the sides) being, in consequence, although not in reality abbreviated, much more transverse; and its epytra are sharply beset, though not densely so, with most minute asperated punctules—which form, from being obliquely impinged, conspicuous, but diminutive, tubercles.

The only specimens (four in number) which I have yet seen of the O. curta have been communicated by my excellent friend, the Barão do Castello de Paiva, by whom they were obtained from Fogo. I suspect that they are from a higher region than any which I visited during our late campaign; and the structure of their anterior tibiae would seem to imply that in their habits they are perhaps even more retiring, or subfossilial, than the ordinary members of the genus.

**Fam. 43. SCAURIDÆ.**

Genus 122. **SCAURUS.**


197. *Scaurus variolosus*, n. sp.

*S*. ater, subnitidus; capite elongato, grosse longitudinaliter punctato-rugoso, in fronte inæquali, epistomate parcius leviusque punctato, ad latera conspice recurvo, apice vix emarginato sed paululum undulato; prothorace convexo, transverso-subquadrato, ad latera æqualiter subrotundato, in limbo (praesertim basi in medio) marginato, profunde, dense, et argute punctato; elytris angustulis, ovalibus, tuberculis minutis granuliformibus parce irroratis, necnon dense seriatim punctatis, aut fere variolosis (punctis magnis sed levibus), suturâ postice elevata, elytris singulis costis duabus longitudinalibus (internâ antice plus minus evanescente) instructis; pedibus paulo picescentioribus, tibiis anticae intus spinâ robustâ armatis.

**Mas** pedibus anticae paulo longioribus, femoribus subtus spinâ elongata subarcuata internâ (necon non sapis alterâ obsolêta anguliformi externâ) armatis, tibiis arcuatâs.

**Fem.** pedibus anticae paulo minus elongatis, femoribus subtus spinâ breviore (tamen robustâ) et rectiore armatis, tibiis rectis; elytrum regione scutellari plurumque magis impresso-declivibus.—Long. corp. lin. 6-6½.

**Habitat** Fogo: sub lapidibus in aridis inferioribus, mex supra Porto da Luz, sat copiose repertus.

The present *Scaurus* was taken by Mr. Gray and myself, at a low
elevation in Fogo—from beneath stones on the top of the dry basaltic cliffs immediately above the Porto da Luz; and it is especially interesting as being the only member of the genus which has hitherto been detected in any of these Atlantic archipelagos. Apart from the two raised costae down each of its elytra, and the robust spine of its anterior femora (both of which are almost generic characters), it may be known by its strongly and sharply punctured prothorax, and by its elytra (which are rather narrower than is usual for the Scauri) being sparingly besprinkled with small granuliform tubercles, and densely crowded with large but shallow punctures, or varioles, which are disposed in longitudinal rows. Its head is very uneven, and coarsely roughened; and its epistome is much recurved at the sides, and minutely undulated (though scarcely emarginate) in front.

Fam. 44. PEDINIDÆ.

Genus 123. CENOSCELIS (nov. gen.).

 Corpus linearis-oblongum; epistomate antice integro truncato, oculis lateralisbus, transversis, paulo arcuatis sed integris (nee à genus divisis); prothorace subquadrate, postice elytrorum latitudine, angulis posticis rectis (nee productis, nee in foveam elytrorum humeralen receptis), subitus in propleuris obsolete striguloso; scutello sat magno, triangulari-scutiformi; prosterni lobo (inter coxas anticas) subito desiliente, sed ad apicem ipsum porrecte prominulo; mesosterno antice late et obtuse excavato; lobo abdominali (inter coxas posticas) angusto, rotundato-triangulari; elytris liberis; alis distinctis, sed haud amplis. Antennas apicum versus gradatim incrassatæ, art. 2° brevi, 3° paulo elongato. Labrum corneum, transversum, antice rotundatum sed in medio paulo truncatum. Mandibulae corneæ, valida, apicis bidentatæ, intrus profunde sianuata et in medio lacinia coriaceæ subescence aucta. Maxillos breves, lobis dense pilosis, internò apice unco subcurvato corneo instructo. Palpi maxillares elongati, art. 1° subconico, 2° elongato gradatim clavato, 3° breviore, ult. magno securiformi: labiales ad basin externam ligulæ (corneæ, concave, biloba) surgentes, art. 1° subflexus, 2° longiore apicum versus latiori, 3° latissimo, subhorizontali, supra planato tabellato elongato-ovali, subitus convexo. Mentum parvum, corneum, obtriguntalre basi truncatum. Pedes ad basin hand valde distantes; tibias anteriories (præseritim in sexu masculo) arcuatis, anticus in sexu masculo intus per dimidiam partem apicalem subito et recte auctis et biciliatis, margine internò (inter cilia) guttatiformi concavo; tarsis in utroque sexu simplicibus, subitus dense pilosis, posticos art. 1° longissimo linearis, 2° et 3° (præseritim hoc) brevibus. 

A keréis, cavus, et scelis, tibia.
So far as I am able to judge from the synopsis given by Lacordaire, the insect for which I have established the present genus would probably enter into his group "Platyscelides" of the Pedi-nidae—its eyes (though somewhat arcuate) being entire, or not divided into two portions by the dilated edges of the clypeus, and its epistome being straightly truncate in front. Moreover the sexual peculiarities of the front tibiae (although not quite the same as in Platyscelis) would still further tend perhaps to point out its affinities.

Unfortunately I have no Platyscelis for comparison; but, judging from the published diagnoses, the Cape Verde insect appears to differ from it in many important particulars—the more conspicuous of which are probably its comparatively large scutellum and developed wings (as in the true Tenebrionidae), its small and obtirangular mentum, its simple tarsi in both sexes, its more approximated posterior coxae, the elongate first joint of its hind feet, and (above all) the marvellous structure of the enlarged terminal one of its labial palpi. This last is most peculiar—being subhorizontal (or placed nearly at right angles to the remainder), extremely flat on its outer surface, which is somewhat oval, but convex on the underside. Its four anterior tibiae are curved, particularly in what I conclude to be the males; and in that sex the front pair are increased (or widened) internally throughout rather more than their apical half by, as it were, a straightened additional piece. This broader portion, consequently, shapes out at its commencement a kind of angle with the basal (or narrow) part of the tibia; and (not being laterally compressed) its two edges, which are furnished with short cilia, are separated from each other by a hollow groove, or channel,—a structure which obtains in many of the Rhynchophora.

198. Cenoscelsis tibialis, n. sp.

C. lineari-oblonga, nitida, nigra; capite prothoraceque dense sed vix profunde punctulatis, hœc transverso-quadrato antice paululum angustiore, ad latera sat grosse marginato, utrinque ad basin (im-marginatam) sæpius obsolete foveolato; elytris profunde punctato- (aut fere crenato-) striatis, in interstitiis minute punctulatis; antennis (præsertim ad basin) pedibusque paulo picescentioribus.

Mas tibiis anterioribus sensim magis areuatis, anticis intus ut supra indicatis.— Long. corp. lin. 3½–3⅓.

Habitat S. Iago, et Brava; inter quisquiliás atque sub lapidibus in intermediis editioribusque degens.
Apart from the structural characters (of tibiae &c.) above alluded to, the present insect may be recognized by its rather narrow, linear-oblong outline, black hue, and shining, somewhat densely punctulated surface. The elytra (in addition to their minute interstitial punctules) are deeply and coarsely crenate-striated. Its prothorax is transverse-subquadrate, with the hinder angles right angles, and about as broad posteriorly as the base of the elytra. It was first detected by Mr. Gray, during 1864, at a high elevation on the mountains in Brava—in which island we both met with it subsequently, in considerable abundance: and we likewise found it at Sta. Catharina, as well as in the Orgãos ravine, in the interior of S. Iago. It occurs beneath stones and decaying vegetable refuse, preferring places which are somewhat damp.

Fam. 45. PHYLACIDÆ.

Genus 124. MELANOCOMA (nov. gen.).

*Corpus magnum, elongato-ovatum, dense rugoso-sculpturatum, bre-viter pilosum; epistomate valde bilobo (se. antice profunde emargi-nato), clypeo ante oculos (laterales, antice emarginatos) rotundato-exstante; prothorace transverso, antice vix emarginato, pos-tice bizunato; scutello sat magno, transverso, semicirculari-triangulari; alis nullis; prosterni lobo horizontali, postice crassi-siulo et paulo producto; mesosterno antice late et leviter concano; lobo abdominali (inter coxas posticas) rotundate qua-drato; abdominis segmentis 1º et 2º in medio leviter longitudi-naliter impressis, 4º brevi. Antennæ capitis prothoracisque longitundine, apicem versus vix inerassatae, art. 2º brevi, 3º valde elongato. Labrum corneum, crassum, rotundato-quadratum, ad latera rotundatum, apice profunde emarginatum et ibidem quasi e laminis dubius efformatum, lobis ciliatis. Mandibulae validissime (sed haud magnæ), corneæ, crasse, triangulares, apice inflææ et obtuse bifidae, in tus in medio fissae, coriaceæ. Maxillæ lobis setoso-pubescentibus, intero ad apicem fortiter uncinato. Pal-porum art. ultimæ in maxillaris magnò securiformi, in labialibus obovato. Mentum corneum, rotundato-quadratum, basi paulo angustatum, apice integrum, angulis anticis rotundatis. Ligula brevis, apice paulo emarginata et longissime ciliata. Pedes elongati; tibiis dense setulosis, anticis versus apicem vix reliquis latoribus.

A μέλας, niger, et κόμη, pilus.

In the structure of their mouth most of these cognate forms are nearly similar; but, in spite of that, the present genus is un-
questionably distinct from *Trichosternum*—to which it is nevertheless allied. The only member of it hitherto detected is larger than the *Trichosterna*, with its elytra more rounded behind the middle (and, therefore, more narrowed in front),—altogether more depressed, more densely and roughly sculptured, everywhere *pubescent* (though particularly on the elytra), with its limbs relatively longer, and with the anterior tibiae slenderer (they being scarcely more widened than the remaining four). Its prosternum also is more horizontal, more thickened (and produced) posteriorly, and less pilose; and its abdominal lobe, between the hinder coxae, is squarer.

199. *Melanocoma vestita*, n. sp.

*M. elongato-ovata*, depressiuscula, atra, ubique breviter et parce pilosa (pilis in elytris erectis); capite prothoraceque dense, profunde et rugose punctatis, hoc ad latera (argute marginata) in medio rotundato, basi marginato et bi- (vel fere tri-)simulato, angulis posticis acutiusculis; scutello dense ruguloso; elytris antice angustioribus et ibidem prothoracis latitudine, pone medium paulo rotundatis, striatis et in interstitiis grosse denseque tuberculato-asperatis; antennis pedibusque longiusculis et (præsertim his) dense setoso-pubescentibus.—Long. corp. lin. 7½—8.

*Habitat* Fogo; sub lapidibus in inferioribus intermediiisque rarior, unâ cum *Trichosterno*.

This large Melasome is at once remarkable for its elongate-ovate outline, its depressed, roughly sculptured, sparingly *pubescent* surface, for its limbs being rather elongate, and for its elytra (the short pile on which is *erect*) being narrowed anteriorly (where they are of the same breadth as the base of the prothorax), somewhat rounded behind the middle, and coarsely asperated between their striae with densely-set tubercles. Its head and prothorax are closely and deeply punctured. It appears to be very rare, and confined (so far as hitherto observed) to Fogo—where I met with it, beneath stones, at the Monte Nucho and Pico Pires. It occurs, however, in the lower districts likewise; for Mr. Gray obtained the mutilated remains of it on the top of the basaltic sea-cliffs immediately above the Porto da Luz.

Genus 125. **TRICHOSTERNUM**.


*Corpus* sat magnum, fere oblongum; *epistomate* profunde bilobo, *clypeo* ante oculos (laterales, antice valde emarginatos) rotundato-exstante; *prothorace* transverso, antice leviter emarginato, postice
This genus, so universal throughout the Cape Verdes, may be said to represent in that archipelago Hadrus of the Madeiran Group; but it has no analogue in the Canaries. It is indeed very near to Hadrus—from which it mainly differs in its setose and sharply margined prosternal lobe, less bald surface (at any rate towards the sides of the elytra), and more robust limbs, the anterior tibiae especially being more conspicuously widened. The structure, too, of its upper lip and mentum is not quite the same as in Hadrus; and its scutellum is rather more triangular, or less abbreviated. The Trichosterna seem to be truly endemic in the Cape Verde archipelago, occurring in every island which has yet been explored; but the three species from the more northern islands (of S. Antão, S. Vicente, and S. Nicolão) belong to a somewhat larger, and slightly different, type from the one which permeates the three southern islands of S. Iago, Fogo, and Brava*.

200. Trichosternum tenebricosum.

T. oblongo-ovatum, convexum, nigrum, subopacum; capite grosse punctato; prothorae (presertim in disco) minus grosse subaspre-rato-punctato, adlatera granulato-rugoso, angulis posticis acutiusculis; scutello dense ruguloso-punctato; elytris minute et parce asperato-tuberculatiss, distinete et late sed vix profunde striatis (aut suleatis) interstitiis obtuse convexis, versus utrumque latus parce et suberecete fulvo setosis; antennis pedibusque piecis.—Long. corp. lin. 6–7.

Phylax validus, Dej. (ined.).
Caragonia canariensis, Reiche (ined.?).
Trichosternum striatum, Woll., loc. cit. 206 (1861).

Habitat S. Vicente; sub lapidibus ab orà maritimà usque ad summnos montes ascendens.

This is the common Trichosternum in S. Vicente, where it is locally

* Concerning the affinities of Trichosternum, Lacordaire, to whom (in 1861) I forwarded the T. tenebricosum for his opinion, wrote as follows:—“Cet insecte est nouveau; il entre dans les Opatrides du groupe des Phylacides, où il doit former un genre particulier parmi ceux qui ont les yeux incomplètement divisés. Je le placerais par conséquent immédiatement avant les Hadrus.”
abundant (beneath stones) from the sea-level to the tops of the mountains. Although quite as large as the *melanarium*, it is relatively a trifle shorter and thicker, and has its elytra conspicuously, though obtusely, sulcated, and (in unrubbed specimens) studded towards either side with longer robust setae. Its scutellum is more densely sculptured; and its whole surface is often a good deal incrusted with a kind of earthy deposit, which causes it to look less black than it really is. It appears to have been taken by everybody who has collected in S. Vicente—including Mr. Miller, Mr. Fry, Captain Hutton, Mr. Gray, the Rev. Hamlet Clark, the Rev. R. T. Lowe, and myself; and it was obtained from thence by the Barão do Castello de Paiva. It has long been known in European collections under the MS. name of "*Phylax validus*, Dej.;" and I have received it from Paris as the "*Caragonia canariensis*, Reiche;" but even if the latter had been published (which, I believe, it has not), it would still be absolutely necessary to change the specific title—the insect having nothing whatever to do with the Canarian Group, and indeed being confined to the single island of S. Vicente even at the Cape Verdes*.

201. *Trichosternum melanarium*.

*T. oblongo-ovatum, nigrum, subopacum; capite grosse punctato; prothorace (prаesertim in disco) minus grosse punctato, ad latera granulato-rugoso, angulis posticis acutis; scutello parce ruguloso-punctato; elytris minute et parce tuberculatis, fere striis carentibus (sc. oculo armato, striolis indistinctis tenuibus, interdum subundulatis et laxe subpunctatis, longitudinaliter notatis) ac paulo transversim rugulosis, versus utrumque latus parce, breviter et subereata subnigro setulosis; antennis pedibusque piceis.*

*Variat* elytrorum striis vel omnino, vel solum alternis, obsoletis, interstitiis vel simplicibus vel obsoletissime (vix perspicue) subelevatis.—Long. corp. lin. 5/2–7.

*Opuntum melanarium, Erich., in Wiegm. Archiv, ix. 246 (1843).*

*Habitat* S. Antão; praecepe in intermedii editioribusque occurrens.

*Obs.—Species* T. *tenubricoso* plerumque subangustior minusque crassa; prothorace subdensius punctato, angulis (praeertim pos-

*This is only another instance of the miserable want of accuracy, as regards habitat, which has been indicated in the material received by me at various times from Paris. Nearly every Canarian species hitherto communicated has been labelled "Teneriffe;" and it would really seem as if they were not aware that there are seven large islands in the Canarian archipelage, differing widely from each other in their respective faunas, and that Teneriffe is only one of them. Pernicious however as this practice is of specifying a particular locality, for which there is no kind of evidence (—instead of merely asserting the island-Group), it is absolutely nothing to the citing of a wrong archipelago, and then applying a trivial name as though to stereotype the very error itself!"
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ticus) acutioribus; scutello minus crebre sculpturato; elytrisque haud aut vix striatis (sc. striolis tennibus subobsoletis, ut supra indicatum est, notatis), necnon versus latera setulis brevioribus ac minus fulvis adspersis.

The T. melanarium is the universal Trichosternum in S. Antão; and, as in the case of the Oxycara peculiar to that island, it is perhaps a little more variable in its exact sculpture than any of the others hitherto detected. It seems to occur principally in the intermediate and higher elevations, and was taken by Dr. H. Dohrn in the northern districts, and by Mr. Gray and myself in the Ribeira Fria, the Ribeira das Patas, &c., of the interior. On the average, perhaps, it is (relatively) a little more elongate, and less thickened, than the last species; and, from being less covered with a scaly deposit, it has the appearance of being blacker. Its prothorax is, if anything, a trifle more densely (and sometimes more lightly) punctured, and has its angles, particularly the hinder ones, usually rather more acute; its scutellum is less closely sculptured; and its elytra are nearly free from striae. The surface of the latter, however, varies within narrow limits, and probably presents some slight modification for almost every locality in which the species is found. Occasionally there are obscure traces of longitudinal sulci (or, which amounts to the same thing, of very faintly elevated interstitial lines); but in most instances these are quite absent. At times a few exceedingly fine, thread-like striae are appreciable, along which we may often detect some elongate, remote, ill-defined punctures; and in this latter case the striae have rather a waved appearance. At others the alternate ones only of these last-mentioned striae are clearly distinguishable, the remainder being sub-obsolete. The surface of the elytra is generally a little wrinkled transversely, and its minute and distant granules are perhaps still smaller (or less raised) than those of the tenebricosum; and the suberect hairs, or setæ, towards the sides, are considerably shorter.

I am satisfied that the present Trichosternum is conspecific with the Opatrum melanarium of Erichson,—the late Dr. Schaum having communicated to me types of the latter (as well as of the O. tenebricosum)*.

* I need not repeat here what I have stated concerning the Oxycara hege-
teroides and pedinoides; for the present Trichosternum and the T. tenebricosum are so unmistakably endemic in the Cape Verde archipelago, and indeed so confined to their respective islands (S. Antão and S. Vicente), that it would be absurd to infer (on account of their having been enumerated amongst Erichson's supposed "Angolan" Coleoptera) that they have anything whatever to do with Angola.

*T. præcedentī similē, sed prothorace paululum angustiorē, multō le-vius sculpturato (punctūlis minoribus et asperatis, discaliibuσ fere obsolētis, aut poētius in granula imbricata mergentibus), angulis (praesertim posticis) minus productis; elytris versus latera setis fulvescentibus sensori longiōribus (ut in *T. tenebricoso*) obsitis; pedibus densius setosis, setis magis fulvescentibus.—Long. corp. lin. 5–6.

*Habitat* S. Nicolāo; in montibus excelsis à Dom. Gray et Revdo R. T. Lowe sub lapidibus copiose captum.

It is not possible that this *Trichosternum* may be but a permanent insular modification, peculiar to S. Nicolāo, of the last species; but if that be the case we should almost be compelled to admit that the *tenebricosum* was, in like manner, a S. Vicente phasis of the same type. Such a conclusion, however, would be purely conjectural; and as the three forms in question are most readily distinguishable from each other, and can never be confounded (on account of each having its own island for a *habitat*), I think it would be most unwise, in the absence of all evidence for a solution of the problem, to attempt to unite them.

The *T. nicolense* was taken, beneath stones, by Mr. Gray and the Rev. R. T. Lowe, in February 1864, towards the summit of Monte Gordo, in S. Nicolāo; and it appears to have been most abundant, for Mr. Gray informs me that he has seldom met with any insect in such absolute profusion. It differs from the *melanarium* in its prothorax being usually a trifle narrower, with the angles (particularly the hinder ones) less porrected and acute, and with the punctures reduced, especially on the disk, to a comparatively diminutive size— and (from being obliquely impinged) taking the form rather of imbricated granules, or minute asperated wrinkles. The suberect hairs with which it is studded on either side are longer (indeed almost as long as in the *tenebricosum*), and the setae of its legs are both more dense and more fulvouscent.

203. *Trichosternum granulosum*, n. sp.

*T. brevĭter et obtuse oblongum, nigrum, opacum, et setulis brevissi-mis fulvescentibus ubique, sed præsertim versus latera, parce irro-ratum; capite prothoraceque grosse et rugoso tuberculato—punctato-asperatis, epistomate a clypeo distincte separato, prothorace ad latera æqualiter rotundato; scutello dense ruguloso—punctato; elytris ubique densissime granulosis granulisque paulo majoribus parce obsitis, nee non punctis levissimis obsolētissimis (vix obser-
vandis) interdum irroratis, plus minus evidenter tenuissime subpunctulato-striatis, interstitiis rarius subconvexis; antennis pedibusque piccis, his dense setosis, tibiis anticus robustus et ad apicem externum in angulum magnum exstantem sublamelliformem ampliatis.—Long. corp. lin. 4–5½.

**Habitat** S. Iago, Fogo, et Brava; in inferioribus intermediisque vulgar.

This is the universal *Trichosternum* of S. Iago, Fogo, and Brava; and, although varying a little within narrow limits, I cannot see that it presents any permanent modifications (for the several islands) of sufficient importance to be worth recording. It is a smaller and more oval (or shortly-oblong) insect than the preceding three; its head and prothorax are densely roughened with imbricated tubercles (occasioned by coarse punctures being obliquely impinged, so as to be lost, or confused, by the asperated anterior edges); its elytra are closely and minutely granulose, and very delicately and lightly marked with subpunctuated striae; and its anterior tibiae are relatively more robust—their external apex being produced into a large, triangular, somewhat compressed or lamelliform, outwardly-directed tooth. Its prothorax is about as wide as the elytra, and regularly rounded at the sides, and its entire surface is besprinkled (more evidently so towards the edges) with exceedingly short, suberect, fulvescent setae. It occurs at low and intermediate elevations, especially the latter, and was taken by Mr. Gray and myself in the three islands to which I have above alluded. From Fogo it has also been obtained by the Barão do Castello de Paiva.

**Fam. 46. OPATRIDÆ.**

**Genus 126. OPATRUM.**

*Fabricius, Syst. Ent. 76 (1775).*

(Subgenus *Gonocephalum, Muls.*

§ I. *Oeuli antice genis profunde secti: tarsi in utroque sexu simplices.*

204. *Opatrum patruele.*

*O. alatum, parallelo-oblongum, dense fulvo squamoso-pubescens; capite rugoso-punctato et tuberculato, genis ante oculos valde ampliato-exstantibus, subangulatis; prothorace argute sed hand dense tuberculato (tuberculis prima facie puncta simulantibus), ad latera subaequaliter rotundato, postice vix angustiore, postice in medio plus minus evidenter oblique biimpresso; elytris profunde punc-
tato-striatis, in interstitiis granulis minutis (punctula simulantibus) parce irrortatis.


Habitat S. Vicente, S. Nicolao, S. Iago, Fogo, et Brava; sub lapidibus in aridis (sepius inferioribus) hinc inde copiosissime congregans.

This large and parallel Opatrum—which may be further known by its broad and prominent genus, by its prothorax being more or less evidently marked behind with two oblique, shallow, central impressions, and by its surface being often a good deal incrusted with brownish, mud-like scales—appears to be extremely abundant in the Cape Verde archipelago, where we may expect that it will be ascertained ultimately to be universal. It occurs for the most part in arid spots of a low elevation, especially towards the coast, and was taken by Mr. Gray and myself in S. Iago, Fogo, and Brava, and by Mr. Gray (on previous occasions) in S. Vicente and S. Nicolao. In S. Vicente it has been likewise captured by Mr. Miller and Mr. A. Fry.

I have little doubt that the present Opatrum is the O. patruele, described in Erichson’s Paper on (supposed) “Angolan” Coleoptera; and if so, it is stated by him to occur likewise in Senegal. It is exceedingly close to my O. lutosum, which abounds in the eastern islands of the Canarian Group; but it is on the average a good deal larger, with its elytra a little more coarsely punctate-striate, and with its genus (or the dilated edges of its clypeus) perhaps a trifle broader and more prominent*.

§ II. Oculi antice genis valde profunde secti (fere divisi): tarsi secundum sexum diversi.

205. Opatrum clavipes, n. sp.

O. alatum, parallelo-oblongum, dense subfulvo squamoso-pubescentis; capite rugoso-punctato et tuberculato, genus juxta oculos obsitus minusque exstantibus, rotundatis; prothorace argute et dense tuberculato, æquali, ad latera subæqualiter rotundato, angulis ipsis-simis posticis fere subprominulis; elytris profunde punctato-striatis, in interstitiis granulis minutis (punctula simulantibus) parce irrortatis.

* If the Opatrum described above should prove hereafter to be distinct from Erichson’s patruele, I would then propose for it the name of lutulentum; for, as I have already given a full and formal diagnosis of it, I feel that I have a right to anticipate any such contingency.
Mas tarsorum anticorum art\textsuperscript{a} ult\textsuperscript{mo} extus in medio in lorum tuberculiformem producto.—Long. corp. lin. 3\textsuperscript{1}3\textsuperscript{4}.

Opatrum prolixum \textit{?}, \textit{Erich.}, \textit{in} Wiegm. Arch. ix. 248 (1843).

\textit{Habitat} S. Antão, S. Vicente, S. Iago, Fogo, et Brava; in locis similibus ac præcedens, sed multo rarius.

In its parallel outline and general sculpture this \textit{Opatrum} has much in common with the preceding one; but in other respects it is totally dissimilar. Thus it is considerably smaller and rather less convex, its prothorax is more densely tubercled, and its eyes are still more deeply cut (indeed almost divided) by the gene—\textit{which consequently appear (when viewed from above) to be carried along the outer margin of the eye to quite its middle point, and to be also more rounded (or less prominent and anguliform) than is the case in the patrucele.}

But its main peculiarity (and it is an extremely anomalous one) consists in the \textit{terminal} joint of the two front tarsi of its male sex, which is curiously developed on its \textit{outer} side into a large central tubercle or node. \textit{It is a structure altogether unprecedented in any Coleopterous form which I have hitherto seen—and one moreover which is so extraordinary that, did it not exist (without any appreciable variation) in all the males (nine in number) which are now before me, I might have been disposed to regard it as the result of some abnormal development, or monstrosity.}

The \textit{O. clavipes} appears to be quite as widely spread as the \textit{patrucele}, and to be found in much the same places—beneath stones in hot, arid spots of a low (but sometimes intermediate) altitude. I have taken it in S. Vicente, S. Iago, Fogo, and Brava; and it was found by Dr. H. Dohrn in S. Antão, and by Mr. Gray and Mr. Miller in S. Vicente; whilst from Fogo it has lately been received by the Barão do Castello da Paiva.

Judging from the diagnosis, I think it is not at all improbable that this \textit{Opatrum} is the \textit{O. prolixum}—described amongst Erichson’s supposed “Angolan” Coleoptera; for although I formerly received from Schaum two examples of the following species as Erichson’s \textit{prolixum}, I suspect that there was some error in Schaum’s identification, and that the \textit{prolixum} is far more likely to be referable to the present one. With this uncertainty, however, it would be extremely rash to adopt for it actually the name of \textit{prolixum} (particularly since Erichson makes no mention whatsoever of its few distinctive features, one of which is truly anomalous); but I mention the \textit{possibility}, in the event of Erichson’s types being at any future time accessible for comparison.
If it _should_ turn out to be the _prolixum_, I may add that the species is stated by Erichson to occur likewise in Senegal and Egypt.

206. _Opatum hispidum_.

*O. alatum*, elongato-oblongum, antice vix subattenuatum, dense et grosse griseo squamoso-pubescent (sed rarius lutosum); capite grosse punctato, genis juxta oculos (magnos) obtuse angustissimique exstantibus, vix rotundatis; prothorace dense et rugose punctato, aquali, ad latera minus rotundato, antice subangustiore, angulis acutis; elytris profunde punctato-sтратis, in interstitius cerebro transversim rugulosis punctulisque minutissimis (x Gerrime observandis) parce irroration.

_Mas_ tarsorum intermediorum art° 1° sub tus retrorsum pectinato-setoso.—_Long. corp. lin. 3 1/4—5 1/4_.

*Opatum tomentosum*, _Dej., Cat._ (édit. 3) 214 (1837).
—— _hispidum*, _Brullé, in Webb et Berth._ (Col.) 68 (1838).
—— _fuscum*, _Woll. [nee Herbst]._, _Ins. Mad._ 500, tab. xi. f. 1 (1854).
—— _——*, _Id._, _Cat._ _Mad._ _Col._ 156 (1857).
—— _——*, _Id._, _Ann._ _Nat._ _Hist._ vii. 204 (1861).
—— _hispidum*, _Id._, _Cat._ _Con._ _Col._ 488 (1864).
—— _——*, _Id._, _Col._ _Atl._ 413 (1865).

_Habitat_ S. Antão, S. Vicente, S. Nicolão, S. Iago, Fogo, et Brava; longe lateque diffusum.

There is no insect more widely spread over the whole of these Atlantic archipelasgos than the present *Opatum*. It has been taken in the Azores, as well as in the five islands of the Madeiran Group, and in the seven Canarian ones; and we may be pretty sure that it is equally universal in the Cape Verdes, it having been met with in every island which has hitherto been explored. It was captured by Mr. Gray and myself in S. Antão, S. Vicente, S. Iago, Fogo, and Brava; and Mr. Gray also obtained it (during 1864) in S. Nicolão. From S. Vicente it has likewise been communicated by Mr. Miller and Mr. A. Fry; and in all probability it will be found to have an extended African range, since it is stated by Erichson to occur in Senegal and Egypt.

The _O. hispidum_ belongs to a slightly different type from that of the two preceding species,—being rather less parallel in outline, or with a faint tendency to be narrowed (instead of somewhat widened) anteriorly; its pubescence is a little longer and coarser; and its surface is punctured (instead of being tuberculose), and is seldom so much incrusted with mud-like scales. Its eyes, moreover, are relatively larger than in either of the other *Opatra* here enumerated; and although the genæ cut very deeply into them (as in the case of
the *clavipes*), the former are still less developed, and less rounded outwards—appearing, when viewed from above, as a mere narrow strip extending to about the middle of the eye. There is a sexual peculiarity, however, in the *O. hispidum* to which I called attention in the ‘Ins. Mad.,’ and again in my Canarian Catalogue—but which I cannot see has been noticed elsewhere, or is paralleled in any other species hitherto described. This consists in the first joint of the *intermediate* feet of the males being pectinated beneath with backwardly-directed bristles*.

I received examples of this *Opatrnum* from the late Dr. Schaum as the ‘*O. prolixum,*’ described in Erichson’s Paper on supposed ‘Angolan’ Coleoptera; but, judging from the diagnoses, I am almost satisfied that it belongs rather to the *next* of Erichson’s species—the *O. virgatum*—and that Schaum was consequently mistaken in his identification of it. But whichever of Erichson’s species this one may represent, it is of no importance as regards the *name*; for the title proposed by M. Brullé has the priority.

Genus 127. *HALONOMUS.*


* Corpus oblongo-ovale, obtusum, convexum: *clypeo* ante oculos subito rotundato-exstante ac paulo elevato, *epistomate* antice profunde emarginato, *oculis* lateralis libris, emarginatis sed hand divisii; *prothorax* transverso, basi coleopterorum latitudine et ibidem bisimnato, angulis posteris paulo productis sed hand acutis; *sentello* magnop, late triangulari; *clytris* liberis; *alis* magnis; *sternis* abdominique fere ut in *Opatro*, sed *lobo prosternali* horizontali et paulo magis producto, necnon *mesosterno* antice argute triangulariter exciso (nece mere concavo). *Antennae* capitis prothoracisque longitudine, basi graciles, art* 5 ulterioribus gradatim crassioribus. *Pedes* subgraciles: *tibiis* minute setulosis, apice breviter bicalcaratis, *anticis* vix dilatatis, sed ad angulum externum in denticulum spiniformem productis: *tarsis* filiformibus, *posterioribus* (sed *præsertim* posticis) art* 1 magno longiaseulo.

The insect for which (in 1861) I established this genus is the *Heterophaga ovata* of Dejean’s Catalogue; and its undilated anterior

* If Erichson’s *O. prolixum* and *virgatum* should be conspecific with the *hispidum* and *clavipes* of this volume (and there is no doubt whatever that, at any rate, the *prolixum* is identical with one of them), it is remarkable that Erichson should have entirely overlooked the anomalous tarsal peculiarity which the male sex of each species possesses! But as it is the custom of continental entomologists not to set-out their specimens as we do in this country, it frequently happens that they never see the limbs (critically) at all when describing them; so that perhaps this omission is not to be wondered at.
tibiae, combined with the general details of its structure, show it to be a member of the "Opatrides vrais." Indeed Erichson cited it as an actual *Opatrum*; but it has too many discrepancies with the members of that group to allow of its being united to them. Thus, the *Halonomi* are not only shorter, more oval, less sculptured, and more convex than the *Opatra*, but their legs are likewise less robust, and their anterior tibiae have the outer apical angle produced into a small prominent spine. Their antennæ also are rather more elavate at the apex, their upper lip is entire in front, their prosternal lobe is a little more developed and less deflexed (being in fact *horizontal*, and at its extreme point even suberect), their mesosternum is triangularly and sharply cut out in the centre (instead of being simply concave), and the construction of their mentum and ligula is different*.

207. *Halonomus ovatus.*

*H.* oblongo-ovalis, convexus, fusco-niger, subopacus, setulis brevibus demissis cinereis irroratus; capite prothoraceque (præsertim illo) dense et subrugulose punctatis, ad latera explanate recurvis et picescentioribus, hæc transverso, basis (coleopterorum latitudine) bisinuato et marginato; scutello picescente, calvo, dense ruguloso-punctato; elyris leviter subpunctato-stratiis, in interstitis obsolete subrugulosis et minute parce punctulatis; antennis piceo-ferrugineis, ad apicem dilutioribus; pedibus inaequaliter ferrugineo-piecis, tibiiis antieis ad angulum externum spiniformi-productis.—Long. corp. lin. 2 3/4–3.

Heterophaga ovata, *Deji,* Cat. (édit. 3) 220 (1837).


*Habitat* S. Vicente; in salinis juxta mare, necnon circa radices plantarum in colliculis arenosis crescentium fodiens, hine inde vulgaris.

A saline insect of a rather wide geographical range—having been found in Sicily (and it will doubtless occur elsewhere throughout Mediterranean latitudes) and at Senegal. In these islands it has been observed hitherto only in S. Vicente; but we may expect to meet with it in the eastern portion of the Group, and indeed wherever there are

* Although perfectly satisfied concerning the affinities of *Halonomus*, I nevertheless a few years ago transmitted my Canarian *H. salinicoa* to Lacordaire for his opinion; and, in reply, he wrote as follows:—"Vous avez parfaitement reconnu la place de cet insecte. Il appartient en effet à ce groupe dont j'ai parlé (p. 269) dans les notes relatives au genre *Opatrum*, en citant, comme en faisant partie, l'*Heterophaga ovata* de Dejean dont vous me parlez. C'est donc aussi un genre nouveau du groupe des Opatridés vrais." The "note" to which Lacordaire referred is in the fifth volume of his "Genera des Coléoptères."
salt places to afford the necessary conditions for its existence. In S.
Vicente it is decidedly common, occurring in brackish spots to the
south of Porto Grande—not merely about the Salterns which have
been dug in the low flats behind the sea-beach, but likewise (in com-
pany with the Ammidiurn ciliatum &c.) amongst the loose sand which
has accumulated into hillocks around the dwarf Tamarisks, and the
plants of Zygoophyllum, which characterize that tract. It may be
known by its rather thick and obtuse body, oblong-oval outline,
brownish-black hue, and by the short and decumbent whitish hairs,
or minute setae, with which it is everywhere besprinkled. Its head
and prothorax (the latter of which is subrecurred at the sides, and
about as broad behind as the base of the elytra) are somewhat coarsely
punctured, and piceous at the edges; its elytra are very lightly punc-
tate-striate, with the interstices sparingly studded with diminutive
punctules; its wings are largely developed; its limbs are slender, and
more or less piceo-ferruginous; and its anterior tibiae have their outer
angle produced into a small spiniform projection, or tooth.

The H. ovatus was taken by Mr. Gray and the Rev. Hamlet Clark,
in 1856, and subsequently by Mr. Fry and Captain Hutton; and
during our late campaign we met with it in considerable profusion.
Although when describing it, in 1861, I was fully aware that it re-
presented Dejean’s Heterophaga ovata, I nevertheless did not know
that Erichson had (in 1843) enunciated it as an Opatrum, under the
trivial name given in Dejean’s Catalogue. Hence it was (feeling in
nowise bound to any mere Catalogue-name) that I proposed for it the
specific title of Grayii—which must of course be suppressed, Erich-
son’s “ovatus” having the priority*

**Fam. 47. STIZOPIDÆ.**

*Genus 128. AMMIDIDUM.*


(= Eremonomus, *Woll.*, 1861.)

*Corpus* breviter rotundato-ovale, convexum; *clypeo* ante oculos

*The *H. ovatus* is so closely allied to a species which I met with in great abun-
dance in the Canarian archipelago (namely, at the Salinas in the north of Lan-
zarote) that I cannot feel perfectly satisfied that the latter, which I described under
the trivial name of salinicola, is more than a permanent geographical modification
of it. Still, since its characters (such as they are) are always very appreciable,
I have not thought it prudent to regard the two as absolutely conspecific. The
*H. salinicola* differs from the *ovatus* in its elytra being very much more distinctly,
and sharply, punctate-striate, and a little less wrinkled,—in its limbs being a little
shorter, the third (and one or two following) joints of its antennae (which are
darker at the tip) being perceptibly more abbreviate,—in its prothorax being
Stizopidae.

subito rotundato-extantane ae paulo elevato, epistomate antice vix emarginato, oculis lateralisbub, emarginatis sed haud divisis; pro-
thorace valde transverso, basi circiter coleopterorum latitudine et
ibidem subsinuate truncato, angulis posticis rotundate obtusis sed
argute determinatis; scutello sat magnô, late triangulari; elytris
ventricosis, liberis; alis sat magnis. Antenne capitis protho-
racisque longitudine, basi graciles, artis 5 ulterioribus gradatim
erassioribus. Labrum submembranaceum, transverso-subquadra-
tum, ad latera et præsertim ad angulos anticos rotundatum, apice
leviter emarginatum. Mandibulae validae, triangularares, ad apicem
(saltem in unà) obtuse biffidæ, intus fissæ et coriaceæ. Maxillarum
lobi apice setoso-pubescentes, internus biuncinatus. Palpi maxil-
lares elongati, arta ulta securiformi, labiales filiformes. Mentum
transverso-quadratum, ad latera rectum, antice latissime sed haud
profunde emarginatum. Ligula ad basin tegumento submembra-
naceo connexivo cum mento conjuncta, cornæ, robusta, subcordata,
angulis anticis fortiter setoso ciliatis. Pedes robusti: tibiis forti-
ter setulosis et muricatis, apice breviter bicalcaratis; anticis late
triangulariter dilatatis, compressis, margine externo ante medium
profunde eroso, dentes duos magnos obtusos plus minus irregularres
efformante, intus (infra apicem externum) concavis, tarsos inter
otium reponendos recipientibus: tarsis filiformibus, posterioribus
(sed præsertim posticis) arta 1mae longiuscelo.

I have not the slightest doubt that the insect from which I have
compiled the above structural diagnosis is the Ammidium ciliatum,
established in Erichson’s paper on supposed “Angolan” Coleoptera;
for it agrees precisely both with the generic and specific descriptions
of the latter; and I have therefore suppressed the name of Eremono-
mus, under which I reenunciated it in 1861.

Lacordaire appears to have fallen into a slight error, or confusion,
concerning it; for when I forwarded it to him, for inspection, after
his volume on the Heteromera had been finished, he returned it as a
new genus belonging to the subfamily Stizopides of the Opatridæ.
I have no doubt that its location thereabouts is correct, and this is the
more probable since it was referred to the Opatridæ by Erichson like-
wise; but Lacordaire (in his ‘Genera’) places Ammidium amongst
the Platyscelides of the Pedinidæ—a step, however, which is very
pardonable, seeing that he distinctly records that he had only a single
example from which to judge. But I strongly suspect that some mis-
take must have arisen concerning that example which had been com-
municated to him as having been determined by Erichson, and that
it did not belong to Ammidium at all; for, had it been a genuine type,

somewhat less deeply punctured,—in its clypeus being a trifle less prominent
immediately in front of either eye,—and in its body being, if anything, perhaps, a
little shorter and more obtuse, with the decumbent setæ still more minute.
STIZOPIDÆ.

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he would not only have identified the specimens which I subsequently sent to him (instead of regarding them as new), but he would likewise have come to the same conclusion about its affinities as he did with mine—instead of assigning it to the Pedimidae. And this is still further borne out by the fact that he states (amongst the “corrigenda”) in his Appendix that *Ammidium* must be removed into the Trachyscelidae (!) and united with *Anemia*—a well-known group which has scarcely anything in common with the careful and accurate diagnosis of *Ammidium* as defined by Erichson. I think it is extremely probable, that the insect which was communicated to Lacordaire as Erichson’s *Ammidium* was in reality my genus *Pseudanemia*—which is taken in the same locality, and which might have been accidentally confounded with it.*

208. *Ammidium ciliatum.*

*A. convexum*, ferrugineum, subnudum, in limbo pilis griseo-cineris longe ciliatum; capite prothoraceque dense asperato-granulatis, hoc transverso, ubique tenuiter marginato, ad latera rotundato et leviter explanato; elytris ventricosis, versus humeros rotundatis, subtilius parciusque granulatis (aut asperato-punctatis) setulisque brevibus demissis cinereis (interdum sublineato-interruptis) irroratis; pedibus muricatis, tibiis anticus latis, extus plus minus grosse irregulariter bidentatis.—Long. corp. lin. 2-2½.


*Habitat* S. Vicente; in aridis subsalinis, et præcipue circa radices plantarum in coliculis arenosis mox pone oram maritimam crescentium, fodiens.

The short, rounded-oval outline of this convex and pale-ferruginous insect, combined with its somewhat asperate sculpture, the abbreviated, depressed, whitish hairs, or minute setæ, with which its elytra are besprinkled, the fine elongate cilia which fringe its lateral edges, its roughened legs, and its broad, externally-bidentate anterior tibiae, will readily distinguish it. It is subsaline, sand-infesting, and fosorial in its habits—as indeed its pallid hue, ciliated sides, and the

* Ammidium appears to have puzzled others besides Lacordaire. Duval (at p. 287 of his ‘Genera des Coleòpt.’) very properly doubts the conclusion arrived at by Lacordaire, that it should be united to *Anemia*, stating that the securniform last joint of its maxillary palpi, and its various other details as enumerated in Erichson’s *diagnosis*, would seem to prevent its amalgamation with that group. And, indeed, had Lacordaire judged also from the diagnosis only, he could not have united it with *Anemia*; but on the supposition (alluded to above) that he had received as *Ammidium* my genus *Pseudanemia* (which is taken in company with it), and contented himself with this supposed type, instead of the description, his mistake would be at once intelligible.
structure of its legs would at once lead us to anticipate; residing in sandy places behind the sea-beach, though not generally on the actual shore. Hitherto it has been observed only in S. Vicente, where it was captured abundantly by myself and Mr. Gray on the hillocks of loose drifted sand (about a mile to the south of Porto Grande) which have accumulated around the various plants (particularly Zygophyllum Fontanesii and the low shrubs of Tamarisk) which stud that arid tract. We may expect to meet with it in, at all events, the opposite island of S. Antão—where there are sandy spots, about a mile or two to the south of Carvoeiro, which seem to afford every condition for its occurrence.

A few mutilated examples of this insect were taken, in 1857, by Captain F. W. Hutton, who touched at S. Vicente on his outward route to Calcutta. I have already mentioned that I was induced to describe them as new, through the fact of Lacordaire (to whom I sent them for inspection) having failed to identify them with Ericson’s genus Ammidium; but as I am now quite satisfied that they are generically and specifically coincident with the A. ciliatum, I have suppressed the title which (in 1861) I proposed for them*.

Fam. 48. TRACHYSCELIDÆ.

Genus 129. ANEMIA.

De Casteln., Hist. Nat. des Col. ii. 218 (1841).

209. Anemia crassa, n. sp.

A. oblonga, crassa, nigra (aut subpiceo-nigra), subnitida, in limbo longe fulvo-ciliata; capite prothoraceque (præsertim illo) dense subrugoso-punctatis, epistomate profunde bilobo (lobis rotundatis, obtusis, apice paululum subcrevus), hoc valde transverso, ad latera rotundato, postice gradatim angustiore, angulis posticis obtusis sed argute determinatis; scutello scutiformi, lævi; elytris profundius parcinusque punctatis, transversim rugosis et obsoletissime (vix pereplicue) longitudinaliter substriatis; antennae brevibus, rufo-piceis;

* Having already been compelled to do the same in so many similar instances, I need scarcely call attention to the fact that the Ammidium ciliatum has nothing to do (we may feel tolerably sure) with “Angola.” The unfortunate mistakes into which Ericson was led through a quantity of Cape Verde species having been mixed up with those from Angola, and the whole having been enumerated by him as coming from the latter locality, has resulted in a series of geographical misrepresentations which, having been once published, it will be difficult ever to neutralize. The Ammidium ciliatum (although totally unknown in collections) is invariably cited as an Angolan insect, and perhaps such will always be the case; yet there is no reason to suspect that it has ever yet been taken except in the single island of S. Vicente.
pedibus robustis, piceis, tibiis antecis latissimis extus fortiter bidentatis, posterioribus extus inaequalibus, versus basin dente spiniformi armatis et ad apicem in alterum multo majorem productis.—Long. corp. lin. 3\textsuperscript{3}3\textperthousand.

Habitat S. Vicente, S. Nicolão, S. Iago, et Fogo; sub lapidibus in inferioribus intermediaisque, rarissima.

Apparently very rare, though widely distributed over the archipelago, occurring at low and (I believe, more particularly) intermediate altitudes. I have seen but four examples of it hitherto,—one of which I captured on the summit of a rounded hill in S. Vicente, about a mile from Porto Grande, another (dead) in S. Iago (in the palm-grove adjoining the eastern outskirts of the Villa da Praia), and a third at the Monte Nucho in Fogo; whilst the fourth was taken by Mr. Gray in S. Nicolão. It is found beneath stones, and appears to be solitary in its habits,—a single specimen residing in a small hole, or excavation, into which its powerfully dentate fossorial tibiae enable it to burrow.

The \textit{A. crassa} may be known by its thick, obtuse, and parallel-oblong body, black (or somewhat piceous-black) hue, and by its coarsely punctured surface—the punctures being rather larger, and more remote, on the elytra than on the head and prothorax. Its prothorax is rounded anteriorly, but rather straightened and narrowed behind, with the basal angles obtuse but sharply defined; its edges are ciliated with long, fulvescent hairs; and its legs are extremely robust—the front tibiae being greatly dilated and powerfully bidentate externally, whilst the four posterior ones are very uneven along their outer edge, armed with a spiniform tooth towards their base, and produced into a large but somewhat irregular one at their apical angle.

210. \textit{Anemia denticulata}, n. sp.

\textit{A. precedente} molto minor et angustior, omnino subtilius sculpturata, prothorace ad latera paulo magis rotundato, mox ante angulos posticos simuato, quare angulis ipsissimis posticis acute prominulis, denticuliformibus (neq obtusis), pedibus (specimine nostro mutilato) non obsvis.—Long. corp. lin. 2\textperthousand.

Habitat S. Antão; in loco quodam valde excelso ("Campo Radondo" dicto) semel tantum, in statu mortuo, reperta.

I met with a single example (dead and partially mutilated) of this \textit{Anemia}, beneath a stone, on the Campo Radondo—a very elevated ridge, on the mountains, in the interior of S. Antão; and, fortunately, it is so well defined by the shape of its prothorax, that I can have no
doubt as to its being totally distinct from the preceding species. In its habits, too, it will probably be found to possess a higher range. It is considerably smaller and narrower than the _A. crassa_, and altogether less coarsely sculptured; and its prothorax is rather more rounded at the sides (or less straightened posteriorly), and sinuated, or somewhat scooped out, immediately in front of the hinder angles—which latter are, in consequence, acute and almost denticuliform (instead of being obtuse). As its limbs are broken, I cannot tell whether there would be any additional character in the armature of its tibiae.

**Genus 130. PSEUDANEMIA.**


_Corpus et instrumenta cibaria fere ut in Anemia, sed corpore minore, breviore; prothorace postice rotundato, angulis fere obliteratis; oculorum parte superiore minore, valde demissâ; epistomatis lobis sensim magis angulatis; palpis labialibus longioribus; necnon antennis certe 10- (nec 11-)articulatis, clavâ 4- (nec 5-)articulatis._

The present genus was established, in my Canarian Catalogue, for the reception of an insect (captured on the sandy shores of Lanzarote) which does not appear to be specifically distinct from the one described below. In its general sculpture and contour, as well as in the formation of its robust fossorial legs, and the elongate fulvous pile with which it is fringed at the edges of its body, it might be regarded at first sight as almost identical with _Anemia_; but the remarkable fact that its antennæ are composed, without doubt, of only ten articulations, and of its club being 4—instead of 5-jointed, would of themselves suffice to separate it from that group. As adjuncts however to this primary feature, I may mention that it is much smaller, and relatively shorter, than the _Anemia_; its prothorax has the posterior angles rounded off (instead of sharply defined); the upper division of its eyes (and indeed its entire head) is less developed; the lobes of its epistome are more anguliform; and its labial palpi are longer. Its antennæ and feet are much abbreviated, its wings are large and powerful, and its elytra (in addition to the elongate cilia at the sides) have a few thick but fragile hairs scattered over their surface*.  

* As I had but a single example, from which to judge, when compiling my Canarian Catalogue, I stated that the elongate cilia which fringe the edges of the body in _Anemia_ are absent in the present genus. This appears however to be untrue, for they are quite as much developed as (perhaps even more than) in that group. The fact is, they are easily destroyed; and in specimens which are old and worn it sometimes happens that there are no traces of them left. I may
211. **Pseudanemia brevicollis.**

*P.* brevissime oblonga, rufo-ferruginea, subnitida, in limbo longe fulvo-ciliata; capite prothoraceque (praesertim illo) dense et transversim ruguloso-punctatis, epistomate profunde bilobo (lobis angulatim subrotundatis, apice paululum subrecurvis), hoc brevi, valde transverso, ad latera rotundato, angulis posticis rotundatis, fere oblitteratis; scutello scutiforme, laevi; elytris profunde parciusque asperato-punctatis, transversim rugosis et obsolete longitudo substriatis, pilis paruidioribus, tarsisque brevibus, piceo-testaceis; femoribus tibiisque paruo picescentioribus, tibiis anticus latissimis, extus fortiter bi- dentatis (dente apicali obtusissimo), posterioribus extus inaequalibus, versus basin dente brevi lato anguliformi armatis, et ad apicem in alterum multo longiorem productis.—Long. corp. lin. vix 2½.


*Habitat* S. Vicente, et S. Iago; in aridis inferioribus, præsertim arenosis, raraissima.

I took a single specimen of this rare insect on the sandy hillocks in S. Vicente, about a mile to the south of Porto Grande, and another (at an equally low elevation) in S. Iago—in the palm-grove which adjoins the eastern outskirts of the Villa da Praia. Its strongly toothed, fossorial tibiae and the elongate hairs with which it is fringed at the sides of its body at once indicate its burrowing, sand-infesting habits; and we may therefore expect to meet with it more abundantly, when searched for in the proper places and in the vicinity of the shore. The example which I captured, originally, in the Canarian Group was, in like manner, found on a sandy slope (in the island of Lanzarote) immediately behind the sea-beach.

**Fam. 49. PHALERIADÆ.**

Genus 131. **PHALERIA.**


The second of the two species described below is so much more parallel and elongate than the ordinary *Phaleria* that, until inspecting it recently with considerable care, I did not recognize it as a *Phaleria* at all; but I am unable to detect a single structural difference of suffi-
mention, also, that Lacordaire records the antennal club of *Anemia* as 4-articulate; but to me it certainly appears to be composed, most distinctly, of five joints—as distinctly so, indeed, as that of *Pseudanemia* is made up of only four. I perceive, however, that Duval figures the antenna correctly.
cient importance to warrant its separation from that group. It is true that its mesosternum is longer than what is normal, and that its wings are largely developed; but the latter character obtains equally in the *P. Clarkii*, which could not be looked upon as anything but a genuine *Phaleria*. Indeed, after examining carefully their oral organs, and their various other details, it is impossible not to regard the *Clarkii* and *parallela* as members of the same group; and since the former of them is manifestly a *Phaleria*, I conclude that the latter must be so likewise.

I may add however that both of these *Phaleriae* recede a little from the more northern members of the genus—not only in being powerfully winged and rather less convex, but also in their eyes (which are less cut—into anteriorly by the gene) and scutellum being somewhat larger, and in their antennae being a trifle less abbreviated and compact, with the third joint more appreciably longer than the following one; and although the *parallela* is much the more elongate and parallel of the two, yet even the *Clarkii* (so unmistakeably a *Phaleria*) is a little more oblong and depressed than is commonly the case.

Both Duval and Lacordaire regard the want of lateral cilia as one of the most important distinctions of the *Phaleriae*; but some of the species, although not so conspicuously fringed as the members of the *Trachyscelidae*, have their cilia extremely apparent, whilst even in the others we can generally detect some short and distant marginal setæ. The *P. bimaculata*, which occurs in Portugal, the Azores, and the Salvages, my *ciliata* from Porto Santo, and the *ornata* from the Canaries, are most distinctly furnished with these side-bristles. The absence or presence of wings, although distinctive of the species, seems to be no generic character at all; so that Lacordaire, who describes the group as winged, and Duval, who affirmed it to be apterous, are both of them equally in error.

### 212. Phaleria Clarkii.

*P. oblongo-ovata*, depressiuscula, subopaca (sc. subtilissime alutacea) punctulisque minutissimis (ægerrime observandis) oculo fortiter arnato irroratis; capite prothoraceque saturate rufo-testaceis, illo paulo distinctius punctulato, hoc brevi, sat parvo, coleopteris subangustiore, antice sensim angustato, ad latera leviter rotundato, angulis posticis obtusiuseulis, basi utrinque foveolâ brevi longitudinaliter impresso; coleopteris testaceis, maculâ magna discai transversâ sublunatâ nigrà ornatis, leviter et tenuissime subpunctulato-striatis, interstitiis depressis, in limbo minute et parce cilia-tis; tibiis anticus apicem versus latis.

**Var. β.** Prothoracis disco postico suffuse, elytrorumque regione scu-
tellari ac suture parte antica (una cum maculâ discali junctis) distincte nigrescentibus.

Var. \( \gamma \). Capite prothoracisque disco suffuse, elytrisque (limbo pallidio, et interdum humeris, exceptis) distincte nigrescentibus.—Long. corp. lin. 2\( \frac{1}{3} \)–3.


Habitat S. Vicente, S. Iago, et Fogo; in arenosis, praecipue subjectamentis, juxta mare fodiens.

This beautiful Phaleria will probably be found to be universal throughout the Cape Verde archipelago, if searched for in sandy places along, and near, the shores; but hitherto it has been observed only in S. Vicente, S. Iago, and Fogo—in which three islands I met with it during our late cruise. In the first and second of them it was captured likewise by Mr. Gray; but it had been previously obtained by him and the Rev. Hamlet Clark, during December 1856, as well as by Mr. A. Fry, in S. Vicente. Although remarkably constant in its general proportions and minutely alutaceous finely sculptured surface, it is extremely variable in colour; for, whilst what I have regarded as the normal state is usually altogether pale with only a large black sublunate patch in the centre of its elytra, in other examples ("var. \( \beta \)") the hinder prothoracic disk is more or less clouded, and the elytra have a triangular portion at their base and the anterior half of their suture (confluent with the medial fascia) additionally black; whilst in others the greater part of the head and prothorax is infusced, and the black markings of the elytra are suffused over their entire surface—with the exception of the pallid margin, and sometimes the shoulders. The paler specimens are principally found in S. Vicente, the intermediate ones in S. Iago, and the darkest of all ("var. \( \gamma \") in Fogo.

213. Phaleria parallela, n. sp.

P. parallelo-oblonga, depressiuscula, saturate testacea, immaculata, nitida, punctulis minutissimis ægerrime observandis (oculo fortiter armato) irrorata; prothorace longiore, transverso-subquadrato, postice ad latera rectiore, angulis posticis subrectis, basi utrinque foveolâ brevi longitudinaliter impresso; coleopteris prothoracis cincter latitudine, subparallelis, profunde subcrenato-striatis, interstitiiis convexis, in limbo calvis; tibiis anticus apicem versus latis.—Long. corp. lin. 3–3\( \frac{1}{2} \).

Habitat S. Vicente, S. Iago, et Brava; in locis similibus ac præcedens.

The comparatively parallel outline, and shining, pallid, immaculate
surface of this elongate and peculiar *Phaleria*, combined with its much less abbreviated and posteriorly more straightened prothorax (the hinder angles of which are nearly right angles), its deeply striated elytra, and its convex interstices, will at once distinguish it. It appears to be as widely spread over the archipelago as the *P. Clarkii*, though perhaps somewhat rarer, occurring in much the same kind of places—beneath *rejectamenta*, on, and near, the sandy shores. I have taken it at Porto Grande in S. Vicente, near the Villa da Praia in S. Iago, and at the Porto da Furna in Brava—in the first of which localities it was found likewise by Mr. Gray.

**Fam. 50. ULOMIDÆ.**

**Genus 132. PSEUDOSTENE.**


Genus in collectionibus cum *Triboioi* conjunctum, sed a *Triboii* (i. e. *ferrugineo et madente*) species hujus generis tota ccelo recedunt. Non solum fossores sunt (per oras maritimas arenosas sub confervis, vel in locis valde salinis, degentes), prothorace multo majore antice lato basi haud sinuato elyopeaque ad latera minus elevato neeman ad apicem rotundato (haud emarginato), sed lobo prosternali majore crassiore sublineari-angusto (nec spatuliformi), mesosterno in medio profundius et argutius triangulariter exciso, mandibulis ad apicem brevius bifidis [apex colllateralis nisi oculo obliquo haud observandum], mento apice late emarginato, ligulâ recte truncata, maxillarum lobo externo multo longiore elongato-ovato loboque interno breviore magis curvato inarmato, antennis lenius incrassatis (clavâ 5-, nec 3-, articulâta), artâ basilari multo longiore et valde curvato, et præcipe tibii simul dilatioribus, antecis latissime compressodilatatis.

214. Pseudostene angusta.

*P.* angusto-linearis, picea, utida, calva; capite dense punctato-ruguloso, elyceo dilutioire, ante oculos obtuse rotundato et vix exstante; prothorace majusculo, subconvexo, antice gradatim latiore, ad latera oblique subrecto, angulis posticis obtusis sed parum argute determinatis, (praesertim in disco postico) multo profundius parciusque punctato, basi utrinque obsoletissime (vix perspicue) et minunte fovolato; elytris parallelis, parce transversim rugulosis, leviter punctato-stratiatis punctisque vix minoribus in interstitiis subuniariorum notatis; antennis pallide ferrugineis; pedibus piceo-ferrugineis, tibiis antecis apicem versus late compresso-dilatatis.—Long. corp. lin. circa 2.


*Habitat* S. Vicente; in salinis et arenosis juxta mare, rarior.

Found in saline places, in the vicinity of the shore, and hitherto
only in S. Vicente; though, when the proper localities are searched, we may expect to meet with it in the other islands likewise. A single example of it was taken originally by the Rev. Hamlet Clark, during his day's sojourn at S. Vicente (in company with Mr. Gray), in December 1856; and it was again met with, though very sparingly, by Mr. Gray and myself, during our late cruise. It resides not only beneath marine rejectamenta on the beach itself, but also in saline places generally (such as the edges of the Salterns), and even—along with Halonomus and Ammidium—on the small hillocks (adjoining the coast) of loose drifted sand, into which its broadly compressed anterior tibiae enable it to burrow. It may be known by its narrow, linear outline, its rather largely developed and anteriorly widened prothorax (which is somewhat obliquely straightened at the sides, and deeply punctured, especially on the disk), and by its elytra being parallel and very lightly punctate-striate, with their interstices sparingly besprinkled with punctures which are hardly smaller than those contained in the striae.

The P. angusta is so nearly allied to a species which I took (in similar, saline places) in Lanzarote, one of the eastern islands of the Canarian Group, that it is not altogether impossible that the two may be but permanent geographical states of a single plastic form. Even if this, however, should be the case, the name of angusta would still have to be adopted—the Canarian fossoria being enunciated in a footnote (and therefore secondarily, as regards position) in my paper above referred to on Cape Verde Coleoptera. But I should rather be inclined to regard them as distinct; for there seems to be a small cluster of species, of this particular type closely resembling each other, and yet differing in many minute (even structural) particulars; and a third, which I possess from Egypt, would still further tend to strengthen this hypothesis. The Canarian species recedes from the P. angusta in being altogether appreciably broader and blacker, with its prothorax (which is somewhat more coarsely punctured) slightly wider anteriorly and less straightened at the sides (which causes the hinder angles to be just perceptibly more obtuse, or less sharply defined), with its genæ, if anything, perhaps, less prominent in front of either eye, with its scutellum a little more acute (or angular) at the apex, with its elytra not quite so parallel, and a trifle more coarsely sculptured, and with its two hinder tibiae somewhat less slender towards their base.*

* The Egyptian P. subelavata is nearer, I think, to the Canarian species than to the Cape Verde one, and might perhaps safely be regarded as a slight geo-
Genus 133. **TRIBOLIUM.**


*Tenebrio ferrugineus,* Fab., *Spec. Ins.* i. 324 (1781).

--- ---, *Id.*, *Cat. Mad.* Col. 151 (1857).
--- ---, *Id.*, *Cat. Can.* Col. 496 (1864).

--- ---, *Id.*, *Col. Atl.* 420 (1865).

*Habitat* S. Iago; ad nuces *Jatrophae* aridas in oppido ipso "Villa da Praia" à Dom. Gray deprehensum.

The almost cosmopolitan *T. ferrugineum*—so liable to dissemination, through the medium of various articles of commerce, over the civilized world—appears to have established itself in the Cape Verde archipelago, as it has in the Madeiran and Canarian Groups. No doubt it will be found to be pretty general, when searched for in the warehouses and towns; nevertheless the only specimens of it (six in number) which I have seen hitherto were taken by Mr. Gray in S. Iago—off some bags of dried Physic-nuts (*Jatropha curcas*) which had been brought from the interior to the Villa da Praia.

Genus 134. **GNATHOCERUS.**

216. *Gnathocerus cornutus.*

*Trogosita cornuta,* Fab., *Ent. Syst.* Suppl. 51 (1798).
*Cerandria cornuta,* Woll., *Ins. Mad.* 490 (1854).

--- ---, *Id.*, *Cat. Mad.* Col. 151 (1857).
*Gnathocerus cornutus,* *Id.*, *Cat. Can.* Col. 496 (1864).

--- ---, *Id.*, *Col. Atl.* 420 (1865).

*Habitat* S. Vicente; circa domos, in granariis et caet., ex alienis certe introductus.

I took a specimen of this common European insect in S. Vicente crawling on the outer wall of Mr. Miller's storehouse at Porto Grande. There can be little doubt that it will be found pretty generally throughout the Group; for the fact of its occurring at all is almost sufficient to ensure that, like most of these imported species, it merely requires to be searched for in the proper places—

graphical modification of the former. Indeed it seems to differ from the Lanzarotan *fossoria,* merely, in having the ulterior joints of the antennæ a little more thickened, and its prothorax perhaps somewhat more largely developed and with less evident traces of the two minute basal foveæ.
about the houses and granaries—in order to be obtained. It has established itself, in like manner, in the Madeiran and Canarian archipelagos.

Genus 135. HYPOPHLEUS.


217. Hypophleus ficicola, n. sp.
H. linearis (vix subfusiformis), rufo-ferrugineus, subnitidus; capite prothoraceque dense punctulatis, epistomate antice rotundato et una cum clypeo paulo elevato; prothorace subquadrate, postice gradatim paulo angustiore, ad latera et postice tenuiter marginato, angulis antec paulo curvatis, clytris subfusciformi-parallelis; clytris majore, pariete striato-punctatis minutissimis in intersticiis subuniseriatim notatis; antennis brevibus, fusiformibus, valde compactis, piceo-testaceis (apice ipso pallidiore); pedibus brevibus, rufo-testaceis, tibiis gracilibus. — Long. corp. lin. 1 ⅛—vix 1 ½.

Habitat S. Iago; sub cortice Fici cujusdam laxo emortuo, in intermediiis, parce lectus.

A small and rufo-ferruginous Hypophleus, which may be known by its narrow, parallel outline, short antennae, densely punctulated head and prothorax, and very transverse scutellum. It is apparently scarce, the only examples of it (five in number) which I have yet seen having been captured by myself in the interior of S. Iago—namely under the loosenened bark of a large native fig-tree (probably the Ficus guineensis, Miq.) which had recently been felled in the Ribeira dos Orgãos.

218. Hypophleus subdepressus.
H. præcedenti similis, sed paulo major et latior; clypeo magis elevato; ocellis subgrossois granulatis; capite prothoraceque vix obsecurioribus, hoc sensim majore, quadratiore, ac magis profunde (præsertim versus latera) punctato; scutello sublato; clytris etiam ad basin tenuiter marginatis) vix profundius sculpturali;

* The H. ficicola is rather larger and broader than the Canarian H. euphorbiæ, with its antennæ relatively shorter, its scutellum a trifle larger and wider, its prothorax more developed anteriorly, and its elytra more coarsely sculptured and a little less fusiform. It is perhaps nearer to the Madeiran H. ambigius, of which it might almost be regarded as a geographical state; but its prothorax and the last joint of its antennæ are both of them appreciably longer, and there are other slight differences of a more trivial kind.
antennis subcrassioribus; tibìisque (praesertim anticus, magis robuste calcaratis) paulo latioribus.—Long. corp. lin. 1¼.

— — —, _Id., Col. Atl._ 422 (1865).

_Habitat_ S. Iago; in intermediis semel tantum repertus.

The single example from which the above comparative diagnosis has been drawn out, and which does not appear to me to differ specifically from one which I captured in Fuerteventura of the Canarian Group, was taken by myself in the interior of S. Iago—I think, at San Domingos; and it certainly possesses too many characteristics of its own to allow of its being referred to the preceding species. Thus it is a trifle larger and wider than the _ficicola_, its clypeus is considerably more elevated at the sides, the lenses of its eyes are appreciably coarser, its head and prothorax are a shade darker in hue, the latter is a little squarer and more developed (particularly in front), as well as more deeply punctured (especially towards the sides), its scutellum is perhaps somewhat broader, its elytra are, if anything, more distinctly sculptured, and narrowly bordered even at their base (at any rate towards the humeral angles), its antennae are somewhat thicker, its tibiae are less slender, particularly the anterior ones, and these last are more powerfully spurred at their inner apex.

§ II. _Epistoma magnum, elongatum, à fronte subrecte separation._ Oculi magni. Scutellum scutiforme. Elytra pygidio breviora.

219. _Hypophleus longicollis_, n. sp.

_H._ angustus, cylindrico-linearis, nitidus; capite prothoraceque nigris, sat dense punctulatis, epistomate antice recte truncato et un cum clypeo haudiv elevato; prothorace elongato, apice subclavato, postice gradatim angustiore, ad latera et postice tenuiter marginato, angulis anticus rotundatis, posticus ipsis subrectis; elytris angustis, cylindricis, rufo-castaneis, minute sequaliter punctatibus (punctulis subseriatis et seriebus alternis in lineis tenuibus levissimis obsolete dispositis); pygidio subnigro; antennis crassis, fusiformibus, piceo-ferrugineis; pedibus longis, piceo-testaceis, tibias latiusculis, anticus ad apicem externum spinulâ parvâ armatis.—Long. corp. lin. 1³⁻⁸⁻¹⁴.

_Habitat_ S. Iago; sub cortice _Fici_, unà cum _H. ficicola_ captus.

This truly indigenous and remarkable _Hypophleus_ belongs to somewhat the same type of form as the European _H. bicolor_, but may be known by its extremely narrow and cylindrical body, its shining and finely punctulated surface, and by its head and protho-
rax (the latter of which is greatly elongated, and gradually widened anteriorly) being black, whilst its elytra (which are truncated behind, so as to expose a portion of the dark pygidium) are rufo-castaneous. Its antennae (which are fusiform and picecent) are much longer and thicker, and not quite so compact, as those of the two preceding species; and its legs (which are piceo-testaceous) are also considerably more elongate, and with their tibiae more robust—the anterior pair, moreover, having their outer apical angle produced into a little prominent spinule.

Several examples of the *H. longicollis* were captured by myself and Mr. Gray beneath the dead loosened bark of a gigantic native *Ficus* in the Orgãos ravine, in the interior of S. Iago.

Genus 136. **DIACLINA**.

Duval, *Genera des Coleopt. iii.* 296 (1863).

I have followed Duval in regarding this genus as unquestionably distinct from *Alphitobius*, with which it has been usual to unite it; but I can scarcely believe (with him) that it should be removed far enough from the latter to be placed in the adjoining family of the *Diaperidae*; for its affinities seem to me most unmistakeably with the *Alphitobii*. But from *Alphitobius* proper it is at once separated (apart from all minor characters) by its comparatively undeveloped genæ, which cut but *very* slightly into the anterior region of the eye, and by its slender legs—even the tibiae being extremely narrow, as well as unspinulose, and with their apical spurs very minute. Its antennæ also are slenderer towards their base than those of the *Alphitobii*, which causes their six ulterior joints to appear more abruptly thickened.

220. **Diacлина suffusa**, n. sp.

*D. oblonga, depressiuseula, rufo-pieca, nitida; capite prothoraceque sat dense et argute punctatis, illo postice obscuriore, oculis magnis, genis haud exstantibus et vix in oculos ductis, hóc basi bisinuate et ibidem coleopterorum latitudine, antice paulo angustiore, angulis posticis subrectis, basi forvæ brevi utrinque leviter impresso; elytris profunde crenato-striatis, interstitiis depressis et punctulis minutissimis parce irroratis, in disco communi obsolete et suffuse obscurioribus; antennis pedibusque saturate testaceis, illis ad basin gracilibus, articulis 6 ulterioribus gradatim conspice incrassatis; pedibus gracilibus, tibis simplicibus (nece spinulosis) et calcariibus minutissimis armatis.—Long. corp. lin. 2.*

*Habitat* S. Iago; inter quisquilias aridas ad San Domingos à Dom. Gray semel deprehensa.
The single specimen from which I have compiled the above diagnosis was taken by Mr. Gray in the interior of S. Iago—by shaking some dry vegetable refuse at San Domingos. It may be known by its oblong outline, and slightly depressed, shining, ruf-piceous surface, the elytra however being a little clouded (or suffused) down the centre of their common disk—which causes the more rufescent portions to have somewhat the appearance, at first sight, of obscure macule, or very ill-defined blotches*. Its head and prothorax (the latter of which is as broad behind as the base of the elytra) are sharply and rather deeply punctured; its elytra are coarsely crenate-striate, with their interstices flat and sparingly besprinkled with most diminutive punctules; and its limbs are slender, and of a dull testaceous hue. It is rather smaller than the European D. chrysomelina; its sculpture is coarser; its prothorax is relatively rather less developed; and its elytral cloud (although obscure) is more confined to the central region, and does not appear to extend to either edge.

Genus 137. **ALPHITOBIIUS.**

221. Alphitobius diaperinus.


--- Id., *Cat. Mad.* Col. 154 (1857).

--- Id., *Cat. Can.* Col. 497 (1864).

--- Id., *Col. Atl.* 419 (1865).

*Habitat* S. Iago, et Fogo; in domibus, cultis mercatorumque repositoris, ex alienis certe introductus.

The wide-spread *A. diaperinus* has established itself in the Cape Verde archipelago, as it has in the Madeiras and Canaries—and indeed throughout a large portion of the civilized world. It occurs about houses and stores, and sometimes even beneath stones in cultivated spots. I have taken it in S. Iago and Fogo, in the former of which it was captured likewise by Mr. Gray; whilst from the latter it has lately been obtained by the Barão do Castello de Paiva.

222. Alphitobius piceus.

*Tenebrio mauritanicus, Fab. [nee Linn., 1767], Ent. Syst.* i. 113 (1792).

*Helops piceus,* Oliv., *Ent.* iii. 58. 17, 22 (1795).

*Perhaps in highly-coloured examples this might be more evident, so as to cause the elytra to seem (as in the European D. chrysomelina) really maculated.*
ULOMIDÆ.


*Habitat* S. Vicente, S. Iago, et Fogo; in locis similibus ac precedens.

*Found in many of the same places as the last species, and (like it) unquestionably naturalized, from more northern latitudes, through the medium of commerce. It was taken by Mr. Gray and myself in S. Iago and Fogo, and it has been communicated from S. Vicente by Mr. Miller; but it will doubtless occur in the other islands likewise. It may be known from the *diaperinus* by being a trifle narrower and less shining, by its prothorax being relatively a little broader, rounder (and more margined) at the sides, somewhat more thickly punctured, and with the angles more acute, by the punc-
tures of its elytral interstices being larger and more numerous, and by its tibiae being appreciably less widened, and almost free from (even minute) spinules. Moreover, it scarcely attains quite so large a stature as the *diaperinus*.*

Genus 138. **XENOGLOEUS.**


*Corpus* sat parvum, subquadrato-oblongum, calvum; *clypeo* vix elevato, *epistomate* truncato (nece emarginato); *prothorace* magno, transverso-quadrato, antice vix emarginato, angulis posticis sub-
rectis, margine postico obtuse sinuato; *scutello* transverso-triangu-
larii; *elytrorum* angulis ipsis humeralibus exstantibus, acutis; *alis* obsoletis; *prosterno* carinato (carinâ postice lobiformi, abrupte terminatâ). *Antenne* prothoracii vix brevieres, apicem versus moniliformes leviter incassatæ, art° ult° subgloboso. *Labrum* subquadratum, postice vix angustius, antice versus angulos antis rotundatum, apice truncatum, ciliatum. *Mandibulae* validæ, subtriangulares, apice incurve acute, intus in medio fisse coriaceae. *Maxillarum lobi* valde pubescente, internus ad apicem subito et valde inflexus incrassatus et ibidem tectiformis concavus obtusus (nece uncinatus). *Palpi maxillares* art° ult° maximo, securi-
formi; *labiales* post ligulam inserti, art° ult° sat parvo flexuoso, 2° do multo ciliatissimo subgloboso, ult° hoc multo magro subovali ad apicem internum oblique truncato. *Mentum* cornu, cordiformi-
quadratum, apice vix emarginatum. *Ligula* subcornea, cordata, antice profunde biloba. *Pedes* breviusculi; *tibiis* ad apicem ex-
ternum subtruncatis, antice spicem versus inflexis latisculis.

The single specimen on which (in 1861) I founded the present genus was communicated by the Rev. Hamlet Clark, as having been taken in S. Vicente—during his day's sojourn there, in company
with Mr. Gray, in December 1856; but as he could recall nothing whatever about it, except that he had found it afterwards in the same box with his other Cape-Verde species, I cannot feel altogether satisfied regarding its habitat. Nevertheless, as it still remains unique, and I have no absolute reason for expunging it from our list, I will not hesitate to admit it—at any rate until some evidence shall have been gleaned to enable me to decide whether Mr. Clark was in error as to its place of capture. I should add, however (as a somewhat significant fact), that it was associated by Mr. Clark with two other insects which we failed to obtain during our late cruise. Concerning its structure and affinities, I cannot do better than transcribe the following note, which I gave in the 'Annals of Natural History.'

"In the extraordinary structure of its inner maxillary lobe—the apical portion of which is suddenly bent inwards (at right angles to the basal part), and, instead of being uncinate, is much thickened, tectiform (or concave), and obtuse at its extremity,—the present genus differs from every other one with which I am acquainted. In its robust, subcorneous, cordate ligula, moreover, and thick, subcordate mentum, as well as in the largely-developed securiform last joint of its maxillary palpi and the acute and prominent humeral angles of its elytra, it is well characterized. With respect to its affinities, I will merely record the opinion of Lacordaire, to whom I transmitted for examination the unique specimen from which the above diagnosis has been compiled. 'Cet insecte,' says he, 'm'est inconnu. Quant à ses affinités, elles ne sont pas douteuses; c'est une Uломide, ainsi que le prouvent la forme de sa tête, de ses antennes, de ses pattes, et surtout l'absence de trochantins aux branches intermédiaires. C'est un genre nouveau, qui repose sur la forme générale du corps plutôt que sur aucun caractère bien précisé, et qui me paraît devoir être placé dans le voisinage des Peltoïdes, Casteln. (Oopiestus, Chevr.).'"

223. Xenogleus politus.

X. rufo-brunneus, politus; capite subrugose punctato, oculis antice nigris; prothorace convexo, leviter et sat parce punctulato, ad latera marginato et vix rotundato; elytris profunde (presertim postice et ad latera) cranato-striatis, interstitiis minutissime remote punctulatis, antice in disco latiis depressis, postice neconon ad utrumque latus angustioribus potius elevatis; antennis pedibusque vix pal- lidioribus.—Long. corp. lin. 24.

Xenogleus politus, WOLL., loc. cit. 252 (1861).

Habitat S. Vicente?; à Rev'do H. Clark olim communicatus.
Fam. 51. **ŒDEMERIDÆ**.

Genus 139. **DITYLUS**.

Schmidt, *in Linn. Ent.* i. 87 (1846).

224. *Ditylus pallidus*.

*D. cylindrico-angustus, elongatus, pallide testaceus (oculis, mandibularum apice, tibiarum calcaribus, et interdum unguiculis, solis nigris), ubique crebre punctatus, neenon longe et densissime pubescens; prothorace subcordato, subinaequali, basi grosse marginato; palpis, antennis versus apicem tarsisque vix obscurioribus. Variat colore omnino fuscescentiore (sed nunquam aurantiaco).—Long. corp. lin. 3–7.*


*Habitat* S. Vicente; in inferioribus à Dom. Fry lectus, necnon à Barone Castello de Paiva benignus communicatus.

*Obs.—D. concolori, ins. Canariensium, valde affinis et forsaeus varietas geographica. Differt colore nunquam aurantiaco (vel pallidiore, vel fuscescentiore) ac pube sublongiore et (saltem postice) paulum minus demissâ vestitus, oculos vix magis prominentibus, prothorace paulo minus profunde punctato, neenon antenerum arté 1me subcrasio.*

A large and pallid *Ditylus* (most variable in size) which has been taken hitherto only in S. Vicente, though, when its habits are fully ascertained, we may expect to meet with it in some of the other islands also. Several specimens of it were captured by Mr. A. Fry, and others have been obtained (more recently) by the Barão do Castello de Paiva. It so nearly resembles the *D. concolor*, found in the Canarian Group and on the rocks of the Salvages, that I cannot feel quite satisfied that it is more than a permanent geographical modification of that insect, though perhaps it will be safer to regard it as a closely allied species of the same type. It differs from its more northern representative in being almost free from the beautiful orange hue which characterizes the latter—it being *either* very pale testaceous, or else with a somewhat yellowish-brown tinge; and its pubescence is a trifle longer and not quite so depressed, at any rate posteriorly. Its eyes are, if anything, somewhat more prominent; its prothorax is less coarsely punctured; and the first joint of its antennæ is just appreciably thicker. Believing the Canarian species to be mainly attached (at all events in its previous states) to the Euphorbias, I should have concluded, from analogy, that the
*D. pallidus* would be in a similar predicament; but as Mr. Fry's examples were taken "beneath trailing succulent plants," I imagine they must have been found in the sandy district to the south of Porto Grande, in which I rather think that the Euphorbias (at any rate the *E. Tuckeyana*) do not grow. In all probability it is the *Zygophyllum* to which Mr. Fry's note alludes; and perhaps, therefore, it may be within the stalks of that low succulent shrub that our present insect undergoes its transformations. I will add, moreover, that I am not absolutely sure that even the *Canarian* species is exclusively of *Euphorbia*-infesting habits.

**Fam. 52. MELOIDÆ.**

Genus 140. **CANTHARIS.**


225. Cantharis Fryii.

*C. cyanae; capite prothoraceque nitidis, illo subquadrato convexo et grosse punctato, hoc parvo, parcius et etiam grossius irregulariter punctato, postice et præsertim antice angustiore, basi grosse marginato et in medio præsertim postice profunde canaliculato; elytris subopacis, indistincte et valde demisse concolori pubescentibus, densissime subtuberculato-rugulosis punctulisque minutissimis sat crebre irroratis, lineis (aut costulis) 3 discalibus valde obscuris obsoletis instructis; antennis pedibusque paulo nigrescentioribus.—Long. corp. lin. 6½.*


*Habitat* S. Vicente, S. Iago, et Fogo; hinc inde in apricus inferioribus.

This large and cyaneous (or almost violet-blue) *Cantharis* seems widely spread over the Cape Verde archipelago, where perhaps during the proper season it would be found to be not uncommon; but as our late cruise was undertaken at an exceedingly dry time of the year, we saw only the remains of it—and moreover very sparingly. It may be expected to occur on flowers, in hot localities of a low altitude—having been obtained (in a dead and mutilated state) near the Villa da Praia in S. Iago by Mr. Gray, and by myself near the Porto da Luz in Fogo. The specimen however from which I compiled my original diagnosis was captured by Mr. A. Fry in S. Vicente, from which island a second (now before me) has been communicated by Mr. Miller.
Apart from its large size and cyaneous hue, the C. Fryii may be known by its head and prothorax (especially the latter) being shining and most coarsely punctured, whilst its elytra are more opaque, indistinctly and sparingly besprinkled with a very decumbent and obscure darkish pubescence, and densely roughened with somewhat tuberculiform callosities, which are intermixed with extremely minute punctules.

**Fam. 53. MORDELLIDÆ.**

**Genus 141. ANASPIS.**


(Subgenus Silaria, Muls.)

226. *Anaspis brevicornis*, n. sp.

*A elliptica, subopaca, rufo-testacea, creberrime transversim strigulosa, pubesque brevi flavo-cinere abdumis densissime sericata; prothoracis disco interdum paulo obscuriore; coleopterorum sutură, parte magnă basali triangulari fasciāque transversā postmediā (nece non interdum apice marginisque lateralis parte anteriore) plus minus nigrescentibus; antennis pedibusque testaceis, illis brevibus, his elongatis, tarsis gracillimis.

Variet colore omnino pallidiore, maculis fere obsoletis.—Long. corp. lin. 1–1½.

*Habitat* Fogo; inter flores, præsertim *Echii* et *Euphorbiae*, deprehensa.

*Obs.*—*A. Proteus*, ins. Maderensium Canariseniumque, affinis, sed certe distincta; differt corpore angustiore, minus nitido, cre brius transversim striguloso, pubesque breviores ac magis cinerea densius sericato; colore omnino pallidiore—antennis (multo brevioribus), palpis, capite pedibusque pallidis immaculatis,—oculis grossius granulatis, neon tarsis gracilioribus.

A few specimens of this rather fragile little *Anaspis* were taken by myself and Mr. Gray in the intermediate districts of Fogo, by beating the blossoms of gigantic Euphorbias and Echiums at the Monte Nucho. Like the *A. Proteus*, of the Madeiran and Canarian Groups, it evidently belongs to Mulsant’s genus *Silaria*; but I can—

*There is a “Lyttta chalybea” enunciated amongst Erichson’s so-called “Angolan” Coleoptera which may perhaps be akin to the *C. Fryii*. But it is described as having the head and prothorax black and pubescent (neither of which is the case in our present insect), and as having the latter thickly punctured and absolutely channelled; whereas in the Cape-Verde species the prothorax is sparingly punctured, and impressed with an exceedingly deep channel behind.*
not think that the latter has any real claim to be treated as more than a mere section of *Anaspis*—its somewhat shorter antennae and elytral epipleurae being the only points that I can detect in which the members of it differ from the ordinary type. Be this, however, as it may, the *A. brevicornis* recedes from the *A. Proteus* (with which, in the general character of their elytral markings, highly-coloured examples of it have much in common) in being relatively a little narrower and straighter in outline, and in being less shining, more densely strigulose transversely, and more thickly clothed with even a minuter whitish sericeous decumbent pubescence. Then (judging from the examples before me) it is of altogether a paler hue, and its head and limbs are quite immaculate; its antennae are conspicuously more abbreviated, the lenses of its eyes are coarser, and its tarsi are more slender still.

**Fam. 54. PEDILIDÆ.**

Genus 142. **PSEUDOSCRAPTIA** (nov. gen.).

*Corpus* angustulum, elongatum, pubescens; *capite* déflexo, *oculis* lateralibus, elongatis, demissis, antice valde profunde excavato-eminutius; *prothorace* basi coleopterorum latitudine et subundulatæ truncato, in medio nullo modo producto (fere etiam subemarginato), antice paulo angustiore, apice subrotundato (nee excavato), angulis anticeis rotundatis oblitis; *scutello* sat magnó, obtusâ triangulari; *elytris* pygidium omnino tegentibus; *mesosterno* carinato; *metasterno* elongato, postice canaliculato; *abdomine* e segmentis 6 composito, 1° brevi, ult° in penultimo ferc abscindito. *Antennae* ad oculi emarginationem inserte, longissimæ, art° 1° subclavato sed vix reliquis robustiore, 2° et 3° (præsertim illo) brevibus, sequentibus longioribus, obconiciis, ad latera (oculo fortissimæ armato) minutissimæ subsemicircularis. *Pedes* basi valde approximati; *tibiis* tarsiisque gracilibus, *illis* rectis, ad apicem internum calcarius duobus brevissimis subsemicircularibus (intus minutissimæ pectinato-ciliati) armatis; *tarsi* heteromeris, art° 1° in anticis longiusculi sed in posterioribus longissimo, *penultimo* in anteriores anguste bilobo sed in posticis integro, *ultimo* (unguiculis simplicibus munito) in anterioribus gracili longiusculo, in posticis brevissimo subconico, ad basin lato (sc. ibidem penultimis latitundine).

A *ψευδος*, mendacium, et *Scraptia*.

Two specimens of the small insect from which I have compiled the above generic diagnosis were captured by Dr. H. Dohrn in the north of S. Antão, and they are unfortunately in such a mutilated state (from having been nearly destroyed by mould and mites) that I am perfectly unable to examine their oral organs, or to do more than con-
jecture concerning their affinities. At first sight they have somewhat the contour of *Orchesia*, and somewhat also of *Anaspis*, and even of *Scraptia*; and, so far as I can judge from their few parts which remain, I am inclined to suspect that they may belong to some group of the *Pedilidae*, perhaps in the vicinity of *Scraptia*. But if that be the case, there is certainly no genus enunciated by Lacordaire which would receive them; and I have consequently been compelled to establish one on purpose,—believing that their *specific* characters (which are quite decipherable), in conjunction with the few structural ones to which I have called attention, will be amply sufficient, at any future time, to enable the insect to be identified (and, if needs be, referred to its proper group).

In its narrow outline, deflexed head, and slender tibiae and feet (the four hinder ones of which are considerably elongated) the insect in question has something in common with both *Orchesia* and *Anaspis*; but perhaps its most distinctive features consist in its eyes being very deeply scooped out anteriorly (behind the insertion of the antennae), in its scutellum being rather large (and obtusely triangular), in its abdomen being composed (as I believe) of six segments (the first being short, and the apical one nearly immersed within that which precedes it), in the basal joint of its four posterior feet being extremely long, in the penultimate one being narrowly bilobed in its four anterior ones but simple in the hinder pair, and in the terminal one of the latter (i.e. of the hinder pair) being anomalously shortened and subconical—in fact, *shorter than the preceding one*! Its tibial spurs are not long, but tolerably robust (being somewhat compressed, and, when viewed beneath the microscope, minutely pectinated, or ciliate, internally); its legs are closely approximated at their base, its mesosternum is slightly carinate, and its metasternum is somewhat elongated.

227. *Pseudoscriptia dimidiata*, n. sp.

*P. angustula*, elongatula, nitida, demissae fulvo pubescentis; capite prothoraceque fusco-testaceis, coriaceo-alutaceis et grosse imbricato-asperatis (vix punctulatis), illo paulo obscuriore deflexo, hoc immarginato, postice coleopterorum latitudine et ibidem subbisimiate truncato, antice paulo angustiore, angulsi anticis rotundatis obliti, posticis rotundate subrectis, in disco antico subconvexo, intra angulos posticos late impresso; elytris pone medium (sed an semper?) paululum dilatatis, fusce-testaceis, dimidiata parte postica (sutura marginique externo, angustissimis, exceptis) nigra, transversim subimbricato-rugulosis granulisque minutos asperatis par-eissime irroratis: antennis pedibusque longiusculis, illis nigrescent-
tibus (ad basin ipsissimam paulo dilutionibus), his gracilibus fusco-
testaceis, hinc inde (præsertim tarsi et versus apicem tibiarum) 
piceascientioribus.—Long. corp. lin. 1 1/3—vix 1 1/2.

Habitat S. Antão; à cl. H. Dohrn, M.D., parce reperta.

The two mutilated examples from which my description has been 
drawn out were taken by Dr. H. Dohrn, at the Sellada de Garça, in 
S. Antão, and professedly amongst Euphorbias; but whether they are 
in any way connected with those shrubs I have no means of deciding.
Apart from its narrowish, elongate outline and the various structural 
features above alluded to, the species which they represent may be 
known by its rather shining surface being beset with a decumbent 
fulvescent pile, and by its head, prothorax, and elytra being of a 
brownish-testaceous hue, but with somewhat more than the hinder 
half of the last nearly black. This darkened portion of the elytra, 
however, does not quite extend over the suture and outer margin, and 
seems to be occasioned by a large blackish dash which covers most of 
the posterior region of each elytron, and which has a tendency to be 
produced narrowly in front (externally) towards the shoulder, parallel 
to the lateral edge. Its antennæ are rather dark; and its legs are 
brownish-testaceous, but more or less obscured in parts. Its protho-
rax is somewhat narrowed anteriorly, and not at all excavated in front, 
but with the angles sloped off (or obliterated); and it is slightly rect-
angular behind (where it is about as broad as the base of the elytra), 
but with the angles themselves a little rounded: it is, also, unmar-
gined and truncate (though a trifle undulated) along its basal edge; 
and it has a wide, but short, fovea on either side within the posterior 
angles. The sculpture is peculiar, though of somewhat the same 
character as in certain Anaspideæ—its surface being scarcely punctured, 
but, particularly on the head and prothorax, roughened, or imbricated. 
On the elytra (which are perfectly unstriate) these "imbrications 
are less distinct, and more like ordinary transverse wrinkles; and 
they are sparingly, but eveny, besprinkled with most minute aspe-
rated granules.

Genus 143. XYLOPHILUS.
(Bonelli) Latr., Fam. Nat. 383 (1825).

§1. Antennæ longiæscula, artæ 1â longiæsculo suboblongo, 2â 3âque 
sequentibus multo breviâribus, miniâribus. Oculi magni, pariun 
distantes (in marius paulo magis approximati quam in feminis).

228. Xylophilus gravidicornis, n. sp.
X. ovatus, subnitidus, testaceus, sat dense demisse subcinereco
pedilidjE.

pubesccns; capite subnigro, minute punctulato; prothorace trans-
verso-subquadrate postice paulo angustiore, paulo densius profun-
diusque punctato; elytris sat profunde punctatis, pone basin
malleato-inæqualibus; antennis elongatis, crassis, sensim obsce-
rioribus (sc. pallido-ferrugineis).—Long. corp. lin. circa 1.

Habitat S. Iago; in loco quodam inferiori juxta Villa da Praia, ad
flores Callotrupis procera, à Dom. Gray parce lectus.

Two examples (a male and female) of this little Xylophilus were
captured by Mr. Gray, at a low elevation, in S. Iago—by beating
the flowers of Callotrupis procera close to the Villa da Praia. Their
rather elongate antennae, the second and third joints of which are
minute compared with the remainder, in conjunction with their
large eyes (which, although somewhat more approximated in the
males than in the females, are nevertheless tolerably distant in
both sexes), show them to belong to the typical members of the
group. In its size, outline, and testaceous hue, the species at first
sight much resembles the X. pallescens; but, apart from the charac-
ters to which I have just alluded, and which remove it into a dif-
ferent Section of the genus, it may be known from that insect by
its head being black, its pubescence appreciably coarser and less
dense, its antennæ thicker (as well as more elongate), and its punc-
tuation deeper—particularly on the elytra (which are likewise a trifle
more ovate, or rounded behind the middle).

§ II. AntenncB breviories (capitis prothoracisque circiter longitudinaline),

art 1o vix elongato ovali, 2o 3o que sequentibus longitudine sub-
equalibus. Oculi minores, in utroque sexu valde distantès. (Phy-
tobæns, Sahib.)

229. Xylophilus pallescens.

X. subovatus, subnitidus, testaceus, densissime et minutissime sub-
cinereo sericatus; capite fere impunctato; prothorace transverso-
subquadrate postice paulo angustiore, minutissime punctulato;
elytris paulo distinctius (tamen minute) punctulatis, pone basin
leviter malleato-inæqualibus; antennis brevibus, vix obscuriori-

Xylophilus pallescens, Woll., Ins. Mad. 538, tab. xiii. f. 3 (1854).

— — — — Id., Cat. Mad. Col. 167 (1857).


— — — — Id., Col. Atl. 440 (1865).

Habitat S. Antão, S. Iago, Fogo, et Brava; inter quisquiliae atque in
cultis, late sed parce diffusus.

This totally pallid Xylophilus, which is found within the cultivated
districts of the Madeiran and Canarian Groups, is widely spread over the Cape Verde archipelago—where we may expect that it will be ascertained to be universal. It is decidedly scarce, however—occurring amongst decayed vegetable refuse at most altitudes, though more particularly at intermediate and rather lofty ones. Indeed it may often be taken on the wing, about gardens and other cultivated grounds. I captured it at Tarrafal, as well as towards the head of the Ribeira das Patas, in S. Antão, at San Domingos and Sª Catharina in S. Iago, at the Monte Nucho in Fogo, and at the Povoação in Brava. Apart from its entirely testaceous hue and abbreviated antennæ (the second and third joints of which, however, are not so short, relatively, as is the case in the last species), it may be known by its extremely delicate punctuation, by the remarkably fine and minute sericeous pubescence with which it is densely clothed, and by its eyes (although sufficiently large) being smaller than those of the gravidicorinis, and widely distant from each other in both sexes.

Fam. 55. ANTHICIDÆ.

Genus 144. ANTHICUS.

Paykull, Fna Suec. i. 253 (1798).

230. Anthicus floralis.

Anthicus floralis, Fab., Syst. Eleu. i. 29 (1801).


— —, Id., Col. Atl. 443 (1865).

Habitat S. Antão, S. Iago, et Fogo; hinc inde inter quisquilias.

The common European A. floralis—which has become widely distributed (probably through human agency) over the world, and which occurs in the Madeiran and Canarian Groups—has established itself in the Cape Verde archipelago, where we may expect that it will be found to be universal. It occurs, though sparingly, amongst vegetable refuse, and was taken by Mr. Gray (at a high elevation in the Ribeira das Patas) in S. Antão, by myself (at San Domingos and Sª Catharina) in S. Iago, and by both of us (near the Porto da Luz) in Fogo. I need scarcely point out its distinctive characters; suffice it to add that its somewhat robust body, its shining, sharply-punctured surface and black colour—the hinder part, however, of the prothorax and the anterior portion of the elytra being more or less brightly suffused with a rufo-testaceous tint—combined with its rather large, subquadrate head, its irregular, or malleated, subbasal elytral impres-
sions, the diluted hue of its limbs (or at any rate of the tibiae, tarsi, and antennae), and the *excessively* diminutive pubescence with which it is sparingly besprinkled, will at once serve to separate it from the other *Anthicus* here enumerated. It varies somewhat in colour—the entire prothorax being often rufescence, and occasionally even the head likewise. The state in which the latter peculiarity obtains is comparatively rare, but most of my Fogo specimens are in that predica-

231. *Anthicus crinitus.*

*Anthicus crinitus,* La Forté, *Mon. des Anth.* 204 (1848).


--- ——, *Id., Col. Atl.* 444 (1865).

*Habitat* S. Antão, S. Vicente, S. Iago, et Brava; sub quisquiliis in inferioribus intermediis, late sed vix copiose diffusus.

An *Anthicus* which is widely spread over northern and western Africa, and which occurs (though not very abundantly) both in the Madeiran and Canarian Groups. In the Cape Verde archipelago it is by no means common, though at the same time so generally distributed that we may expect it to be found universally. It occurs, beneath vegetable refuse, from the sea-level (where it may often be captured even in brackish spots) to a high altitude on the mountains, and was taken by Mr. Gray and myself in S. Antão and S. Iago, and by myself in S. Vicente and Brava. My S. Antão specimens are from Tarrafal and the head of the Ribeira das Patas, and the S. Iago ones from the Villa da Praia, San Domingos, the Ribeira dos Orgãos, and Sª Catbarya; and I met with a single example near Porto Grande in S. Vicente, and with another at the Porto da Furna in Brava. In the north of S. Antão it was obtained likewise by Dr. H. Dohrn.

The *A. crinitus* may be known by its head (which is squarish-oval
and very sparingly punctured) being more or less black, by its pro-
thorax (on which the punctures are a little more dense) being usually
rufo-ferruginous, whilst its elytra (which are very deeply punctured)
have a large oblique patch, on each, which covers nearly the whole
basal (or subbasal) region, and a smaller one on the suture, midway
between the centre and apex, more or less clearly rufo-testaceous.
Its entire surface is shining, and sparingly beset with elongate, sub-
rect, cinereous hairs. Its prothorax is sometimes almost dark; and
in most of the examples which I have seen from S. Antão this is more
or less the case.

232. Anthicus dimidiatus.

A. angusto-elongatus, gracilis, nitidus, niger (vel piceo-niger) sed
eytryis antice pallidis, dense et leviter punctatus, et demisse
minuteque cinereo pubescens; capite obvato, pone oculos rotund-
dato; prothorace subcordato, basi grosse constricto; elytris sub-
parallelis, nigris, singulis maculâ magnâ obliquâ mox pone basin
(sepium partem basalem fere obtengente) rufo-testacea ornatis (nee-
non interdum ad apicem obsolete et suffuse dilutioribus); antennis
pedibusque gracilibus, elongatis, saturate testaceis, femoribus pi-
cecentioribus.—Long. corp. lin. 1\frac{4}{2}-1\frac{5}{2}.

— , , Id., Col. Atl. 446 (1865).

Habitat S. Vicente, et S. Iago; hine inde in salinis, sed haud vulgaris.

This is a saline species, and perhaps therefore widely diffused over
these and Mediterranean latitudes; nevertheless I am not aware of
its having been detected hitherto except in the Canarian Group—
where, in brackish spots, it is locally far from uncommon. In the
Cape Verde archipelago it was captured sparingly, by Mr. Gray and
myself, near Porto Grande in S. Vicente, and at the Villa da Praia in
S. Iago; but we may be pretty sure that, were the edges of the Salinas
carefully examined, it would be met with in comparative abundance.

The A. dimidiatus may be recognized by its narrow, subparallel
outline, and slender limbs; and by its colour (when mature) being
black, or piceous-black, except the limbs and the front region of the
eytra—which have a large, oblique, testaceous patch on each, imme-
diately behind their extreme base, and which appears at first sight
to cover nearly the anterior half. Its head is somewhat small and obo-
vate (being rather long, and considerably rounded, behind the eyes); its
prothorax is much constricted at the base; and its entire surface is
densely and finely punctulated, shining, and thickly clothed with
a most minute, decumbent, cinereous pubescence.
233. Anthicus reductus, n. sp.

*A. breviusculus, subopacus, omnino testaceus, sat dense et demisse subcinereo pubescens; capite rotundato, max pone oculos truncato et, unà cum prothorace, sat dense æqualiter punctato, hòc brevi, transverso-subquadrato, postice paulo angustiore (sed hand constricto), angulis (præsrtim anticus) argute obtusi; elytris ovatis, dense et profunde punctatis; antennis pedibusque breviusulis, crassiusulis.—Long. corp. lin. 1.*

*Habitat S. Iago; sub quisquiliis, juxta Villa da Praia, semel detectus.*

A single example of this little *Anthicus* was taken by myself at a low elevation in S. Iago—beneath vegetable refuse, in a garden, at the Villa da Praia; and it may be known from the other species with which we have here to do by its comparatively small size, its more abbreviated outline, and its totally pallid colour. Its head is rounded and short (the eyes extending almost to the basal region); its prothorax is likewise short, and transverse, with the angles (particularly the anterior ones), although obtuse, sharply defined, and a little narrowed, but not constricted, posteriorly; and its surface, which is subopake and (especially of the elytra) rather distinctly punctured, is clothed with a pale, decumbent pubescence.

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**Fam. 56. PSELAPHIDÆ.**

*Genus 145. BRYAXIS.*


234. *Bryaxis gemmula, n. sp.*

*B. rufo-testacea, aut lute testaceo-ferruginea, nitida, minutissime et parce punctulata, subtiliter flavescenti-cinereo pubescens; capite subtriaangulari, inter oculos foveâ magna rotundata utrinque, nec non antice in medio alterà paulo minus profunda, impresso; prothorace parvo, convexo, utrinque versus latera foveâ magna rotundata profunda, neenon basi in medio alterà multo minore leviore punctiformi, impresso; elytris convexis, postice valde abbreviatis, singulis strià discali, postice fortiter incurvā, instructis; abdominis segmento 1" striolâ basali abbreviâtâ in mediâ parte utrinque impresso; antennis brevibus, crassis, articulis subapicalibus transversis, apicali magno, ovato basi truncato; pedibus longissulis, gracilibus, tibiis intermediiis leviter, sed posticis valde curvatis.—Long. corp. lin. circa 3½.*

*Habitat S. Antão, S. Vicente, S. Iago, et Brava; inter quisquilias humidas, præsrtim in locis intermediiis, late sed parce diffusa.*
This interesting little _Bryaxis_ is exceedingly close to a species in my possession which was taken in Egypt both by the late Dr. Schaum and Mr. Melly, and which the former communicated to me under his own (MS. ?) name of "rutila." Indeed it seems to differ from the latter, merely, in its somewhat shorter antennae—the intermediate joints of which are rather more moniliform, whilst the terminal one is likewise more abbreviated and not quite so obliquely acuminate towards its apex. Apart from its exceedingly short and thick antennae, and various other characters, it reedes from the more northern members of the genus, with which I am acquainted, in having its central prothoracic fovea extremely small and punctiform. Its entire surface is reddish-testaceous, and besprinkled with a very minute yellowish-white pubescence; and its hinder tibiae are a good deal curved. Amongst 31 examples now before me (30 of which were taken by myself) I cannot detect any sexual peculiarity, unless it be that the last antennal joint is perhaps a trifle larger in the males than in the females*.

The _B. gemmula_ is widely spread over the Group, occurring amongst damp vegetable refuse at intermediate and rather lofty altitudes. I have captured it in the Ribeira Fria and the Ribeira da Babosa, of S. Antão, at Madeiral in S. Vicente, at Sª Catharina in S. Iago, and near the Povoação in Brava; and a single example was met with in the first of those islands by Mr. Gray. It is peculiarly interesting from being the only representative of the present family which we could obtain, by constant and careful sifting, throughout the archipelago. Insects of this small stature are of course easily overlooked, and therefore I do not conclude that there are no other _Pselaphidae_ to be found; but the fact of our having alighted upon this one in no less than four different islands, and in so many localities widely separated from each other, is at least presumptive evidence that species even thus minute did not escape our observations to any considerable extent.

I may add that the _B. gemmula_ is the only _Bryaxis_ which has hitherto been observed in any of these scattered Atlantic Groups,—the genus which would appear to supply its place both in the Madeiran and Canarian archipelagos being (the equally European) _Euplectus._

* Even if the Cape Verde _Bryaxis_ should prove ultimately to be but a geographical state of the Egyptian one, I believe that the title which I have proposed for it will still have to be retained; for I am not aware that Schaum ever published his " _B. rutila."
Genus 146. **HOMALOTA.**

235. **Homalota coriaria.**

*H. subnitida,* pubescens punctulisque minutis (in capite abdominique parcius) dense irrorata, nigra vel fusco-nigra, elytris (brevisibus) paulo dilutioribus sed versus angulos externos necnon in regione scutellari paululum magis obscuris; capite sat parvo, subrotundato; prothorace sat parvo, breviscule, postice rotundato, angulis posticis rotundate obtusis sed sensim determinatis, in disco postico late sed leviter impresso; antennis breviscule, nigro-fuscis, ad basin pedibusque saturate testaceis.—Long. corp. lin. 1-vix 1½.


**Habitat** S. Antão, S. Vicente, S. Nicolão, S. Iago, Fogo, et Brava; inter quisquilias vulgaris.

The European *H. coriaria* is by far the most abundant of the *Homalotas* throughout these Atlantic Groups. In the Madeiras and Canaries it swarms, and it has been met with (though more sparingly) in all the islands of the Cape Verde archipelago which have hitherto been investigated; and we may feel pretty confident that it will be found to be quite universal. It occurs chiefly amongst vegetable refuse, and at most elevations—though principally at intermediate ones. It was captured by Mr. Gray and myself in S. Antão, S. Vicente, S. Iago, and Brava, by Mr. Gray in S. Nicolão, and by myself in Fogo. In S. Antão it was obtained likewise by Dr. H. Dohrn. It may be known by its very finely punctulated surface and black (or brownish-black) hue—the elytra, however, being always a little more dilute, or fuscescent (though less evidently so towards their outer apical angles),—and by its prothorax being rather small and short, and lightly (but broadly) impressed on the hinder disk.

236. **Homalota subputrescens,** n. sp.

*H. subnitida,* grosse pubescens punctulisque (in capite abdominique parcius) sat dense irrorata, nigra, elytris (depressiusculis, subquadriatis) testaceis sed versus angulos posticos externos necnon (suffusius) in regione scutellari nigrescentibus; capite transverso-sub-
rotundato; prothorace transverso, lato, postice rotundato, angulis posticis rotundate obtusis sed sensim determinatis, in medio leviter obsoletissime canaliculato; antennis crassis, artorio longiusculo subconico, nigro-fuscis, ad basin pedibusque testaceis.—Long. corp. lin. 13/14.

Habitat S. Antão, S. Iago, Fogo, et Brava: inter quisquillas humidas (praesertim in fructibus Citri aurantii putridis), præcipue in intermedii hinc inde vulgaris.


This is, on the average, a slightly larger and broader insect than the coriaria, somewhat more coarsely (and, at any rate on the head and prothorax, less densely) punctated and pubescent, with its head usually just appreciably larger, its prothorax wider, most obliquely channelled, but free from the shallow depression on the hinder disk, its antennæ a trifle longer, and its elytra (which are, if anything, more developed and depressed) paler or more testaceous—though, at the same time, darkly infuscated in the scutellary region and towards the outer apical angles. It is so closely allied to the Canarian H. putrescens (which, however, is chiefly of Euphorbia-infesting habits) that I would not be quite sure that it is more than a geographical modification of it. It differs merely in its prothorax being a little less rounded off posteriorly (or with the basal angles appreciably more defined), in its elytra being more sharply punctated, and in the last joint of its antennæ being a trifle less thickened, or more conical.

The H. subputrescens is widely spread over the Group, where in all probability it will be found to be universal. It occurs amongst putrid vegetable refuse, chiefly at intermediate elevations; and it often swarms within the decaying Oranges which so frequently strew the ground, beneath the trees, in cultivated spots. I have taken it in S. Antão, S. Iago, Fogo, and Brava—in the first two of which it was likewise captured by Mr. Gray, and in the first by Dr. H. Dohrn.

237. Homalota clientula.

H. nitida, grosse pubescens punctulisque (in capite abdomineque par- cissime, in prothorace parce, sed in elytris dense et asperate) irro- rata, nigra vel fusco-nigra, elytris (brevibus, convexisculis) plus minus dilutoribus; capite sat parvo, subrotundato; prothorace magno, lato, convexo, postice paululum latiore et rotundato, angu-
STAPHYLINIDÆ.

lis posticis rotundate obtusis (fere obliterate); antennis brevissulis, nigro-fuscis, ad basin pedibusque saturate testaceis. 

*Variat* capite prothoraceque aut fere nigris, aut fuscescentibus, aut etiam clare rufo-ferrugineis.—Long. corp. lin. 1–1⅓.

— — Id., *Cat. Mad.* Col. 176 (1857).

*Habitat* S. Antão, S. Vicente, et Brava; inter quisquillas, minus frequens.

*Obs.*—*H. coriaria* differt staturâ plerumque (sed non semper) paulo minore, corpore subgrossius pubescente, prothorace majore et (præsertil postice) latiore necnon (unà cum capite) parcìus punctulato, elytris subbrevioribus, subconvexioribus, paulo rugosius asperato-punctatis et sæpìus alter coloratis, atque antennis (articulo ultimo acutiore) sensim minus incrassatis.

The European *H. clientula*—which occurs both in the Madeiran and Canarian Groups—is very widely spread over the Cape Verde archipelago, where we may be pretty sure that it is universal. It is found beneath vegetable refuse, principally at intermediate altitudes, and was taken by myself in S. Antão and S. Vicente, and by Mr. Gray in Brava. From its general size, and the more or less brownish hue of its elytra, it might almost be confounded at first sight with the *coriaria*; nevertheless a closer inspection will show that it is totally distinct from that species,—being not only, on the average, a trifle smaller, more shining, and more coarsely pubescent, but with the punctation of its head and prothorax less dense, with the latter relatively larger and wider (particularly behind), with its elytra (which are, if anything, somewhat shorter and convexer) more roughened with asperated punctules, and with its antennæ (which have their apical joint a little aenter) rather less thickened.

238. **Homalota exsecrabilis**, n. sp.

*H. præcedenti affinis, sed (nisi fallor) vix ejus varietas. Differt corpore paulo minore obscuriore, sc. nigro, pedibus (subgracilibus) solum, præsertim tarsis, paulo dilutioribus, sensim minus nitido (oculo fortissime armato etiam minute subalutaceo), minus pubescente, necnon (sub lente fortissima) paulo densius, ac distincte profundius, punctato.—Long. corp. lin. 1.

*Habitat* S. Iago; semel tantum deprehensa.

The single example from which the above comparative diagnosis
has been drawn out, and which was taken by myself in S. Iago, seems to differ too much from the common *H. clientula* to be treated as a variety of that species; and I have, therefore, described it as distinct. Judging from the individual before me, the *H. exsucabilis* is appreciably smaller and darker than the *clientula* (being, apparently, black, with the legs, and particularly the antennae, somewhat diluted in hue), less pubescent, a trifle less shining (being even slightly alutaceous when viewed under the microscope), and with its punctuation both a little denser and coarser.

239. *Homalota glareosa*, n. sp.

*H. fusiformis* (antice et postice paulo attenuata), subopaca, grosse subfulvo pubescens punctisque asperatis (an potius granulis?) ubique densissime et argute irrorata, nigra, elytris saturate testaceis sed versus angulos posticos externos necnon (suffusius) in regione scutellaroi nigrescentibus; capite subrotundato; prothorace sat magno, lato, antice angustato, postice rotundato, angulis posticis rotundate obtusis; antennis longiusculis, fere nigris (ad basin paulo dilutioribus); pedibus saturate testaceis.—*Long. corp. lin. 1 1/4—1 3/4.*

*Habitat* S. Antão, S. Nicolão, et S. Iago; in stercore bovino, late diffusa.

In its fusiform outline and dense sculpture, as well as in its rather large, posteriorly-widened prothorax, more or less pallid elytra, and stercoraceous habits, this *Homalota* is on much the same type as the European *H. melanaria*, Sahl.; nevertheless it is very much smaller and more opake, its sculpture is (relatively) even still closer and more asperate (for it is difficult to say whether it should be defined as punctured or granuled), its prothorax is more narrowed in front, and its antennae are darker and less thickened. Perhaps at the right season of the year it would be found to be tolerably abundant, and even universal; but during our late expedition we obtained but few specimens of it—and those in the dung of cattle, at low and intermediate altitudes. I took it in S. Antão and S. Iago; and it was met with by Mr. Gray in the former of those islands, as well as (during his previous cruise) in S. Nicolão. It seems to be variable in stature, and somewhat so even in the development of its elytra.

240. *Homalota carbunculus*, n. sp.

*H. subfusciformis*, subobita, sat grosse pubescens punctisque (in capite abdomeineque parce, in prothorace sat densius, sed in elytris dense et asperate) irrorata, atra: prothorace sat magno, lato, an-
tice leviter angustato, postice rotundato, angulis posticis rotundate obtusis; antennis breviusculis, piceo-nigris, concoloribus, art. ult. ovato; pedibus testaceo-piceis, tarsis pallidioribus.—Long. corp. lin. 1–1⅓.

_Habitat_ S. Antão, S. Vicente, S. Nicolão, S. Iago, Fogo, et Brava; in stercore vulgaris.

_Obs._—Species _H. nigra_, Kraatz, _Europaeae_, staturae parva coloreque nigro primà facie sub simulìs, sed tamen toto eoelo distincte; differt corpore magis fusiformi et grossius pubescente, puncturâ sensim remotiore ac minus subtili, prothorace præsertim postice multo latiore antennisque brevioribus, art. ult. conspicue minus elongate.

The comparatively minute size and subfusiform outline of this little, deep-black _Homalota_, which, however, has its legs (and particularly the feet) more diluted in hue, combined with the short and ovate apical joint of its antennae, will at once distinguish it from the other species here enumerated. It occurs in the dung of cattle, and appears to be universal throughout the archipelago—having been captured in, at any rate, all the islands which have yet been explored. It was taken by Mr. Gray and myself in S. Antão and Fogo, by myself in S. Vicente and S. Iago, and by Mr. Gray in S. Nicolão and Brava. It is found at most elevations, though principally at low and intermediate ones, and is extremely active with its wings in the hot sunshine*.

Genus 147. **OXYPODA.**

Mannerheim, _Brachél_, 69 (1831).

241. _Oxypoda hydrophathica_, n. sp.

_O. fusiformis_, (abdomine, basi nigro, excepto) subopaca, minutissime et denissime punctulata et pube fulvescente demissà dense sericata, alatissima; capite subrotundato, nigro-fusco; prothorace elytrisque fuseis (his paululum subtestaceo dilutioribus), illo magnó, convexo, lato, transverso-sub quadrato; elytris intra angulum externum emarginato-excavatis; abdomine pilis elongatis erectis parce obsito; antennis (gracilibus, fragilibus) pedibusque testaceis, illa-

* From its small size, black hue, and slightly diluted legs, the _H. carbunculus_ has a certain _primâ facie_ resemblance to the European _H. nigra_ (which occurs also in the Madeiran and Canarian Groups); nevertheless, when closely inspected, it will be seen to be totally distinct, belonging to almost a different _type_. Thus it is more fusiform in outline (or less parallel), and clothed with a rather coarser pubescence, its punctuation is somewhat less fine and more remote, its antennae are a little shorter, with their apical joint less elongate, and (above all) its prothorax is larger and wider—especially behind.

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**STAPHYLINID.E.**


*Habitat* S. Antão, S. Vicente, et Fogo?; inter quisquillas marciaidas in aquaticis rarissima, volare gaudens.

Having but a single specimen of this minute and fragile Staphylinid from which to judge, I have been unwilling to run the risk of dissecting it; nevertheless I feel almost satisfied that it is a true *Orypoda*, though it appears to possess the subaquatic habits of *Mylolana* and *Deinopsis*.

It was taken by myself in S. Vicente—from beneath sodden leaves alongside (indeed almost in) the little stream which issues from the dripping rocks at Madeiralzinho; and I met with another (which I afterwards lost), in a similar situation, at Tarrafal, in the south of S. Antão; and I feel pretty confident that it was the same species, of which I obtained a third example (which, however, was destroyed in my collecting-bottle) at the Fonte of the Monte Nuno in Fogo. And if this be the case, it would seem (although extremely rare) to be widely spread over the archipelago. It is remarkably active—not only with its legs, but also with its wings (which are most largely developed).

The *O. hydropathica* may be known by its closely punctulated, sub-opake, densely sericeous surface—the abdomen, however, which is black, being shining, and sparingly studded with elongate suberect hairs; by its head being of a darkish brown, whilst the prothorax and elytra (the former of which is large, and transverse-quadrare) are of a more diluted, or paler, hue, and by its limbs being fragile and testaceous—the antennae especially being slender, and with their subbasal joints slightly obscured.

Genus 148. **ALEOCHARA.**


*A. fusiformis,* quasi subopaca, crebre punctulata pubeque fulvescente demissâ dense sericata, nigra, elytris intus plus minus rubescenibus; prothorace in limbo sepius anguste dilutiore; elytris rubescenibus sed versus angulos externos, in parte magnâ seutellari triangulares, necnon sepius per suturam plus minus late obscuratis, densius asperato-punctulatis, postice intra angulum externum sinuatis; antennis brunneis, ad basin et apicem ipsissimun, palpis pedibusque saturete testaceis.—Long. corp. lin. vix 2–2½.
Aleocliara puberula, Klug, Col. Madagasc. 51 (1833).
— Armitagei, Wall., Ins. Mad. 559 (1851).
— , Id., Col. Atl. 473 (1867).

Habitat S. Antão, S. Iago, Fogo, et Brava; inter quisqulias degens

An Aleocliara which may be known by its very fusiform outline, by its closely-punctured and densely fulvo-pubescent surface, by the suffused, red, oblique dash on each of its elytra (which are sinuated towards their outer apical angles), and by its antennæ being of a brownish tint, with their base and extreme apex (like the legs) testaceous. It is a species of a very wide geographical range—occurring in Mediterranean latitudes, the Madeiran and Canarian Groups, and many distant parts of the world (where perhaps it may have become established through human agency). There cannot be much doubt that it is universal in the Cape Verde archipelago, though hitherto it has been observed in only four of the islands,—having been taken by myself in S. Antão, S. Iago, Fogo, and Brava, in the first and last of which it was captured likewise by Mr. Gray. In S. Antão it was also found by Dr. H. Dohrn. It is principally to be met with amongst decaying vegetable refuse, though occasionally in the dung of cattle.

243. Aleocliara comma, n. sp.

A. fusiformis, erassa, latiuscula, nitida, parce et profunde punctata pubesque fulvescente grossa subdemitissa parce vestita, nigra elytris late testaceo-rufis; prothorace ad latera (rarius in limbo) paululum dilutioire, in disco punctis duobus paulo majoribus utrique longitudinaliter notato; elytris testaceo-rufis vel late rufo-castaneis, aut concoloribus aut (sepius) versus angulos externos obscurentibus, densius asperato-punctatis; antennis brevibus, crassis, nigris, ad basin, palpis pedibusque clare rufo-ferrugineis.—Long. corp. lin. 2¹⁄₃—vix 3.

Habitat S. Iago, et Brava; inter quisqulias in intermediis occurrunt.

The comparatively large size and somewhat thickened body of this beautiful Aleocliara, combined with its shining surface, rather coarse but remote pubescence, black hue, bright rufo-castaneous elytra (which, however, are usually a little obscured towards the outer apical angles), and short, incrassated antennæ—the basal portion of which, together with the legs, is clear rufo-ferrugineus—will at once distinguish it from the other species with which we have here to do.
It occurs beneath vegetable detritus at intermediate altitudes, and was taken by myself at St* Catharina in the interior of S. Iago, and close to the Povoação in Brava. In the latter locality it was abundant—amongst dead leaves and loose friable earth, around the roots of ferns and other plants, at the foot of the more or less perpendicular mountain-sides, outside the town. When disturbed, it counterfeits death even more completely than is ordinarily the case with the Aleocharas—bending its head against its breast, and curving its abdomen, so as to assume much the shape of a comma (from which circumstance I have adopted its specific name).

244. Aleochara 4-punctata, n. sp.

*A. subfusciformis, subnitida, pube griseâ demissâ parce vestita, nigra elytris intus testaceo-rufis; capite prothoracaeque minutissime alutaceis et parce punctatis (punctis sat magnis sed levibus), hâc in disco punctis duobus multo majoribus (se. maximis) utrinque longitudinaliter notato et sepius alterâ media versus latera impresso; elytris testaceo-rufis sed versus angulos externos (et sæpe suffusius, obscurius angustiusque ad basin) obscuratis, densius asperato-punctatis; antennis palpisque nigrescentibus, illis ad basin hisque ad apicem paulo dilutioribus; pedibus rufo-piceis, tarsis pallidioribus.—Long. corp. lin. 1\(\frac{1}{2}\)-2\(\frac{1}{8}\).

Aleochara 4-punctata, Fauvel, in litt.

*Habitat* S. Antão, S. Vicente, S. Iago, Fogo, et Brava; in stercore vulgaris.

Although extremely variable in stature, this *Aleochara* descends to a smaller size than either of the preceding species; but in its general sculpture and colouring it is more on the type of the *A. comma* than on that of the *puberula*. Apart however from its comparatively small bulk, it may be known by its head and prothorax being *alutaceus* (and therefore less shining), and with the four additional punctures on the disk of the latter exceedingly large and conspicuous, by its (rufo-testaceous) elytra being more evidently obscured towards the sides and outer apical angles, and by its antennæ being less incassated and, together with the legs, more darkened throughout. It occurs in dung, at low and intermediate altitudes; and we may be pretty sure that it is universal in the archipelago,—having been captured by Mr. Gray and myself in S. Antão, S. Vicente, S. Iago, and Fogo, and by Mr. Gray in Brava*.

* Before examining this *Aleochara*, I had imagined, from its general aspect and colouring, that it was identical with the European *A. nitida*; but a closer inspection shows it to be totally distinct, and more (in reality) on the type of the
Genus 149. Oligota. Mannerheim, Brachel. 72 (1831).

245. Oligota contempta, n. sp.

O. linearis, subnitida, paree griseo pubescent, fusco-nigra, elytris plus minus fuscis, abdominis apice testaceo; capite prothoracique minutissime punctulatis; elytris abdominalque densius rugosiusque subasperato-punctatissi; antennis pedibusque saturate testaceis, illarum articulis 3 ulterioribus parum abrupte incrassatis.—Long. corp. lin. $\frac{1}{2}$—vix $\frac{3}{4}$.

Habitat S. Antão, S. Iago, et Brava; inter quisquillas necon sub cortice arborum laxo emortuo, praeipue in intermediis, rarior.

Although scarce, this little Oligota seems to be widely spread over the archipelago—where it occurs, both amongst vegetable refuse and beneath the loosened bark of trees, principally at intermediate altitudes. I captured it towards the head of the Ribeira das Patas in S. Antão, at San Domingos and (under the dead bark of a native Ficus) in the Ribeira dos Órgãos in S. Iago, and on the mountains above the Povoaçào in Brava. Its linear outline, more or less conspicuously fuscous elytra, and the testaceous apex of its abdomen, added to its 3-jointed antennal club, would seem, when combined, to separate it from the European O. pusillina and atomaria—in which the clava of the antenna is, likewise, triarticulate.

Genus 150. Nematoscelis (nov. gen.).

Genus antennis (ad oculorum marginem internum insertis) 10—, tarissique (nisi fallor) 4-articulatis, necon paraglossis nullis, cum Oligotá congruens; sed palporum maxillarium arté ultr (acculari) longiore, sc. penultimo vix breviore; palpis labialibus magis conicis, arté 1m brevi, 2h multo longiore subaculiforme subcyllindrico, ult quam hic vix breviore ac panlo angustiore (sc. acaculi); liga brevissima, inter palpos rotundate prominenti sed integra (nee divaricate bifida) et setulis duabus longissimis instructa; pedibusque multo longioribus (sc. longissimis), gracilissimis, differe videat. Corpus breviusculum, latum sed utrinque attenuatum (nt in Tachyporinis), alatissimum; capite deflexo; prothorace postice lato (co-

A. comma. Thus its elytra are very much more thickly, and less deeply punctured, and more broadly rufescent—being in fact testaceo-rufous, but obscured towards the edges and external angles (instead of having only a small rufescent patch at the inner angle); its legs are more picous; and its head and prothorax are minutely alutaceous (and therefore less shining), and the latter (in addition to its scattered shallow punctures) has two large punctiform impressions arranged longitudinally on either side of its disk, as well as another (less distinct) midway between these and either outer edge.
STAPHYLINIDÆ.

leopterorum latitudine) et in medio rotundate producto; anten-
narum art. 1ᵃ et 2ᵈ longinsculis crassinsculis, clavæ abrupte
3-articulata; tibiis apice ōrmatis; tarsorumque posteriorum
art. 1ᵃ elongato.

A vý'µa, filum, et σεκλις, tibia.

The minute Staphylinid for which I have established the present
genus is closely allied to Oligota—with which it agrees (inter alia)
in the implantation and structure of its 10-jointed antennae, and
its quadriarticulate feet; but the aciculated last joint of its palpi is
longer, its ligula is shorter, projecting but very slightly between
the labial palpi, where it is rounded and entire (instead of being mi-
nutely bifid and divaricate), but furnished with two powerful setæ
which are but slightly shorter than the palpi themselves, and its legs
are considerably longer (being remarkably elongate, and slender).

Its primæ facie aspect is most peculiar; for, although its short,
medially-widened, elliptic outline is a good deal on the type which
obtains in the second Section of the European Oligota, and also on
that of the Madeiran Somatium (which, however, belongs to the sub-
family Tachyporides), yet its highly polished, intensely black surface
and pale testaceous antennae, combined with its elongate, wiry legs,
give it a very singular appearance. Its wings are largely developed,
its head is deflexed, its antennæ have their first two joints moder-
rately enlarged and the club abruptly triarticulate, its excessively
narrow tibiae are free from apical spurs, and its four hinder feet have
their basal joint a good deal lengthened.

246. Nematoscelis filipes, n. sp.

N. breviter elliptica, lata, nitidissima, atra, antennis flavo-testaceis,
et punctulis pubesque demissā paressim adpersa; elytris vix
minus nitidis (oeculo fortissime armato subtilissime et levissime
transversim strigulosis); pedibus longissimis, gracillimis, paulo
dilutoribus (i. e. sæpius hinc inde subtестaceis).—Long. corp. lin.
circa ½.

Habitat S. Antão, et S. Vicente; ad folia floresque Lablabia vulga-
ris, Savi, à Dom. Gray in cultis intermediis deprehensa.

It is somewhat remarkable that I did not take this curious little
insect at all, though it was found in several localities by Mr. Gray
(and rather abundantly). In every instance he obtained it, only, by
beating the plants of an eatable Bean (the Lablabia vulgaris—known
locally under the name of "Feijão") in cultivated spots of interme-
diate altitudes. In such situations he met with it on the hill-sides
above the Ribeira Fria, as well as towards the head of the Ribeira das Patas, in S. Antão, and at Madeiralzinho in S. Vicente.

(Subfam. GYMNUSIDES.)

Genus 151. MYLLÆNA.
Erichson, Käf. der Mark Brand. ii. 382 (1837).

247. Myllæna fuscula, n. sp.

M. fusiformis, opaca, minutissime et densissime punctulata (sere quasi granulata) pubique brevi omnino demissâ dense sericata, fusca, capite et præsertim abdomen (apice excepto) paulo nigrescentioribus; prothorace subquadrato, antice paulo angustiore, ad latera æqualiter vix rotundato; elytris postice leviter simulatis (quare ad angulos externos retrorsum acuminatis); antennis pedibusque fragilibus, saturate testaceis, illis ad basin et apicem interdum etiam subpallidoribus, art. ult. sensim acuminato.—Long. corp. lin. 1-1¼.

Habitat S. lago; inter lapillos in aquis per margines rivulorum, in intermediiis, parce latens.

In size this Myllæna is about midway between the European dubia and intermedia, being more of the stature and outline of the brevicornis, Matth. (=gracilis, Kr.); nevertheless it belongs to the same type as the two former species. It is, however, browner, and relatively a little narrower, as well as a trifle more depressed, than either of them, its limbs are paler, and its surface is, if anything, even still more opaque. Like the Myllæna generally, it is densely clothed with a short decumbent sericose pile, its antennæ are extremely fragile, and its wings are largely developed. In its movements it is exceedingly active, residing beneath wet shingle at the edges of the streams, and, when disturbed, making its escape either by flight or by abandoning itself to the surface of the water—on which it is easily buoyed up by means of the closely set pubescence with which it is covered. The few examples of it which I have seen were taken by myself in the Ribeira dos Orgãos, in the interior of S. Iago *.

(Subfam. TACHYPORIDES.)

Genus 152. LEUCOPARYPHUS.

Kraatz, Nat. der Ins. Deutsch. ii. 393 (1857).

* Perhaps, in general colouring and aspect, the Cape Verde Myllæna is nearer to the European M. elongata; but it is distinctly smaller and slimmer than that species, and its limbs are paler, shorter, and less developed.
248. Leucoparyphus silphoides.

Staphylinus silphoides, Linn., Syst. Nat. i. ii. 684 (1767).
Tachinus silphoides, Woll., Ins. Mad. 570 (1854).
--- ---, Id., Cat. Med. Col. 185 (1857).
Leucoparyphus silphoides, Id., Col. Atl. 481 (1865);

Habitat S. Antão, S. Iago, et Brava; hinc inde, in stercore bovino.

This common European insect—so well distinguished by its highly-polished, black, and almost unsculptured surface, the elytra, however (except a large, more or less developed, discal patch), and the sides of the prothorax, being testaceo—occurs sparingly, in the dung of cattle, throughout the Cape Verde archipelago, where most likely it has become established (as it appears to have been in the Madeiran Group) from more northern latitudes. I have taken it in the Ribeira da Babosa in S. Antão, at San Domingos and S'ta Catharina in S. Iago, and in the Ribeira do Sorno in Brava. In S. Iago it was found also by Mr. Gray. The Cape Verde examples have their antennae a little slenderer than is the case in the ordinary European ones; but there is nothing about them which has the slightest claim to be regarded as a specific difference.

(Subfam. QUEDIIDES.)

Genus 153. TANIGNATHUS.
Erichson, Küh. der Mark Brand. i. 417.

249. Tanygnathus varicornis, n. sp.

T. angustus, elongatus, fusiformis, niger; capite prothoraceque niti-dissimis, illo angustulo-ovali antice subaeuminato, hoc (postice coleopterorum latitudine, aut etiam fere sublatrio) antice angustato, in dimidia parte postica rufo-testaceo, angulis posticis rotundatis, in dorso utrinque punctis duobus (uno sc. vix ante medium, et altero minore mox pone marginem anticum, sitis) longitudinaliter notato; scutello (magno) elytrisque paulo minus nitidis, dense asperato-punctatis et unà cum abdomine pubes griseà demissa parce vestitis, elytrorum marginé apicál rufo-testaceo et intra angulos externos sinuato-emarginato; abdomine posteice valde attenuato, subiridescente, magnis piceo, segmentis singulis apice dilutioribus, setis longissimis nigrescentibus parce obsito; antennis gracilibus, filiformibus, nigrescentibus, art. \(1^{\text{ro}}\) fusco-testaceo, \(4^{\text{ro}}\) apicalibus (unà cum palpis longissimis) pallido-testaceis; pedibus testaceis.—Long. corp. lin. 1\(\frac{1}{4}-2\frac{1}{4}\).

Habitat S. Antão, et S. Iago; inter quisquilias putridas in lutosis juxta margines aquarum, vel stagnantium vel præcipue fluen-tium, parce latitans.
Judging from the description, this *Tanygnathus* is extremely near to the very rare European *T. terminalis*, though I think that there are sufficient differences about it to leave no question that it is nevertheless truly distinct. And indeed, being so unmistakably indigenous in the Cape Verde archipelago, it is highly improbable, *a priori*, that it would be found to be actually conspecific with its more northern ally. Having no type of the latter for comparison, I am compelled to trust to the diagnosis; but, unless I am much mistaken, the Cape Verde species is narrower than the *terminalis*, with its (slender) antennae more pallid at their apex, and with its prothorax not only blacker anteriorly but both paler and more broadly pale behind—the posterior half (or even more) being of a clear rufo-testaceous hue. Moreover, in the *terminalis* no mention is made of the second (or subapical) puncture on either side of the prothoracic disk. In their narrow, oval head, basally-rounded prothorax, large scutellum, and the rufo-testaceous hinder margin of their elytra, the two species appear to be similar.

Although scarce, or at any rate extremely local, the *T. varicornis* is most thoroughly indigenous throughout the Group, though hitherto it has been observed only in S. Antão and S. Iago. In the former of those islands I met with it first at Tarrafal, running over the hot mud (amongst putrid vegetable refuse) which had formed occasional alluvial deposits at the edges of the stream; whilst in the latter I obtained it, in much the same kind of places, at San Domingos, in the Ribeira dos Orgãos, and at Sª Catharina—by sifting sodden leaves and rubbish, in damp but sunny places, at the margins of the watercourses and pools. It would, consequently, seem to be almost subaquatic in its mode of life. It was captured likewise by Mr. Gray, though more sparingly, both in S. Antão and S. Iago.

Genus 154. HETEROTHOPS.

250. Heterothops minutus.

*H. angustulus, elongatulus, niger; capite prothoraceque nitidissimis, illo angustulo-oboavato, hóc (postice coleopterorum latitudine) antice angustato, angulis posticis rotundatis, in disco utrinque punctatis duoibus (uno sc. ante medium, et altero minore max pone marginem anticum, sitis) necnon perpaucis ad marginem ipsum basalem notato; sentello (magno) elytrisque paulo minus nitidis, distincte asperato-punctatis et una cum abdomine pube griscâ demissâ grossa parce vestitis, elytris vel nigro-piceis apice et ad humeros dilutoribus, vel testaceo-piceis, vel etiam fusco-testaceis;*
antennis nigrescentibus, artis 3 basalibus pedibusque plus minus clare rufo-testaceis.—Long. corp lin. 2–2½.

————, Id., Col. Atl. 485 (1867).
Habitat S. Antão, S. Iago, Fogo, et Brava ; inter quisquillas, passim.

I am extremely doubtful whether this variable Heterothops should not be referred to the common European H. dissimilis ; but, be that as it may, it appears to be conspecific with my H. minutus of the Madeiran and Canarian Groups, which I also met with at Mogadore on the opposite coast of Morocco. We may be pretty sure that it will be found to be universal throughout the Cape Verde archipelago, where it occurs under vegetable refuse at nearly all elevations. It was taken by Mr. Gray and myself in many parts of S. Antão (such as the Ribeira Fria, the Ribeira das Patas, Tabouga, and the Ribeira da Babosa), as well as (at the Villa da Praia, San Domingos, and Sª Catharina) in S. Iago, and on the mountains above the Povoação in Brava; and I obtained it at the Fonte of the Monte Nucho, in Fogo. The Cape Verde examples have the first three joints of their antennae more brightly rufo-testaceous than is the case in the Canarian ones now before me; but, as the insect is essentially variable, I can detect nothing about them to warrant the suspicion that they are specifically distinct.

(Subfam. STAPHYLINIDÆ.)

Genus 155. PHILONTHUS.

(Leach) Steph., Ill. Brit. Ent. v. 226 (1832).

§ 1. Prothoracis seriebus dorsalisibus et punctis 4 compositis.

251. Philonthus marginipennis, n. sp.

P. subfusciformis, capite abdomineque picco-nigris, prothorace elytrisque rufo-piceis, his in margine laterali (præsertim ad angulos externos) necnon angustius obscuriusque per suturam subtestaceo pallidioribus ; elytris (convexiusculis) abdomineque longe, dense, et demisse fulvo pubescentibus et parum crebre (sed vix profunde) subasperato-punctatis ; antennis (breviusculis) pedibusque infuscate testaceis.—Long. corp. lin. 2.

Philonthus marginipennis, Gory, in litt. (teste Domº Fauvel).

Habitat S. Vicente ; à cl. Fauvel numprime communicatus.

Obs.—Species P. discoideus colore habituque generali primâ facie subsimilis, sed seriebus dorsalisibus prothoracicis et punctis 4
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(nee 5) compositis tota caelo discedit. Differt præterea P. discoideō staturā paulo minore ac magis fusiformi, prothorae eλytrisque magis piccis, his sensim convexioribus et longioribus, extus argutiō pallido marginatis atque, unā cum abdomen, erebritus leviusque punctatis necnon densius longiusque pilosis.

A single example of a Philonthus has lately been communicated to me, under the above title, by M. Fauvel, as coming from S. Vicente; and he has added, for comparison; another, of decidedly the same species, from Senegal; so that I have no reason to doubt the accuracy of its professed habitat. In general colouring and aspect it is a good deal suggestive, at first sight, of the common European P. discoideiis (which has established itself in most of these Atlantic islands); nevertheless the fact of its prothoracic series being composed of only four punctures, instead of five, does in reality assign it to a totally different section of the Philonthi. But, apart from this primary one, it will be seen (on a closer examination) to have many characters which will immediately separate it from that species. Thus it is a little smaller and more fusiform; and its prothorax and elytra are more piceous, whilst the latter (which are relatively a trifle larger and more convex) are more broadly and conspicuously pallid along their outer margin, as well as, together with the abdomen, more densely and finely punctured and more thickly pubescent.

§ II. Prothoracis seriebus dorsalisibus è punctis 5 compositis.

252. Philonthus scybalarius.

P. ater, elytris abdominique griseo pubescentibus; capite ovali; elytris subasperato-punctatis; abdomen sæpius subiridescente; antennis longiusculis, fusco-nigris, ad basin vix picescentioribus; pedibus nigris, coxis antecis femoribusque omnibus intus plus minus evidenter dilutioribus (sc. subtestaceo tinctis).—Long. corp. lin. 3–4½.

Philonthus scybalarius, Nordm., Symbol. 94 (1838).
— varianis, Woll. [nee Payk.], Ins. Mad. 583 (1854).
— —, Id., Col. Atl. 492 (1865).

Habitat S. Antão et S. Iago; hinc inde, vel in stercore bovino vel sub quisquiliis.

This rather large and deep-black Philonthus—so common throughout Europe and in the Madeiran and Canarian Groups, and which was taken by the late Mr. Bewicke even at Ascension—will doubtless be found to be universal at the Cape Verdes, though hitherto
it has been captured only in S. Antão and S. Iago. In the former of those islands it was taken by Dr. H. Dohrn in the north, and by Mr. Gray (at Tarrafal) in the south; whilst in the latter it was met with by Mr. Gray and myself at San Domingos, and Sª Catharina. It occurs both in the dung of cattle, and under decayed vegetable refuse generally.

253. Philonthus ventralis.

P niger, elytris abdomineque grosse fulvescente pubescentibus; capite subquadrato-rotundato; prothoracis punctis dorsalis magnis; elytris subconvexis, profunde parceque punctatis; antennis fuscis, ad basin pedibusque piceo-testaceis.

Variet elytris et interdum etiam prothorace vix picecentioribus.—Long. corp. lin. 2 1/2-3.

Staphylinus ventralis, Grae., Col. Micropt. 174 (1802).
— ——, Id., Col. Atl. 493 (1865).

Habitat S. Iago; inter quisquiliis in intermediis, rarior.

A European Philonthus which occurs sparingly both in the Madeiran and Canarian Groups, and which appears to be rare in the Cape Verde archipelago—the few examples which I have seen having been taken by myself (beneath damp, decaying refuse) at Sª Catharina, in the interior of S. Iago. It is smaller, and of a less intense black, than the cybalarius—both the prothorax and elytra having occasionally (though by no means always) a faint picecent tinge; its head is a trifle squarer (or less oval); its elytra are a little more convex, somewhat more deeply and distantly punctured, and, together with the abdomen, sparsely clothed with a more fulvescent decumbent pile; and its limbs are shorter and paler.

254. Philonthus discoideus.

P. niger, elytris abdomineque grosse fulvescente pubescentibus; capite rotundato-quadrate; elytris paulo picecentioribus, sat profunde parceque punctatis, in limbo et præsertim per suturam suffuse rufo-ferrugineis; antennis brevissculis, clare testaceo-fuscis, arté 3ªæ sœpius obsolete obscuriore; pedibus piceo-testaceis.—Long. corp. lin. 2-2 1/2.

Staphylinus discoideus, Grae., Col. Micropt. 38 (1802).
Philonthus discoideus, Woll., Cat. Mad. Col. 190 (1857).
— ——, Id., Col. Atl. 493 (1865).

Habitat S. Antão, S. Iago, et Fogo; vel sub quisquiliis vel in stercore degens.
Likewise a common European Philonthus, and one which occurs both in the Madeiran and Canarian Groups. It is widely spread over the Cape Verde archipelago, where we may be tolerably sure that it will be ascertained to be universal. I have taken it at Tarrafal in the south of S. Antão, and at San Domingos and Sª Catharina in the interior of S. Iago; and it was met with, by myself and Mr. Gray, near the Porto da Luz in Fogo. It is rather smaller than the proimus, with its head a little squarer, its antennae (which usually have their third joint obscurely infuscated) shorter and paler, and with its elytra not only more piceescent but conspicuous dilutely both along the margins and suture—especially the latter, which is more or less rufo-ferruginous. It is a Philonthus which has acquired for itself an extended geographical range, being one of those species which are easily naturalized (indirectly) through human agencies. In more northern latitudes it is often very common about hotbeds and melon frames.

255. Philonthus sinuatus, n. sp.

P. angustus, niger (vix subpiceo-niger), elytris abdomineque fere calvis (aut parcissime pubescentibus); capite rotundato-ovali, punctis perpauceis maximis irrato; prothorace angustulo, ad latera ante angulos posticos excavato-sinuato, punctis dorsalisbus magnis; elytris densissime et argute punctatis; abdomen dense et minute asperato-punctulatis; antennis palpisque nigrescentibus, ad basin piceo-testaceis (horum artº ultº acutissimo); pedibus testaceis, hinc inde picescentioribus.—Long. corp. lin. 3½.

Habitat S. Antão; à cl. H. Dohrn, M.D., semel deprehensus.

The single specimen from which I have compiled the above diagnosis was taken by Dr. H. Dohrn (in the Ribeira de João Afonso) in the north of S. Antão; and before examining it closely I had imagined it to be an unusually small and narrow example of the P. punctipennis—with which in its general facies, colour, and sculpture it has much in common. But a more accurate inspection shows that it belongs to the Section of the genus in which there are only five punctures down either side of the prothoracic disk; and it is further distinguished by its head being shorter and rounder, by its prothorax being narrower and suddenly scooped out (or sinuate) on either side in front of the posterior angles, by its elytra being even still more closely (and not quite so coarsely) punctured, whilst the punctures of its abdomen are very much smaller and more dense, and by its antennae and palpi being darker—the latter, moreover, having their apical joint even more acute.
§ III. Prothorax sericeus dorsalibus et punctis circa 6 vel 7 compositis.

256. Philonthus turbidus.

*P.* picco-niger, elytris abdominque parce grisco pubescentibus; capite subquadrato-oblongo, punctis perpencis maximis irrorato; elytris (interdum picecentioribus) dense et argute punctatis; abdomen parcius sed parum grosse punctato, subiridescente; antennis nigro-fuscis, ad basin rufo-piceis; palpis pedibusque rufo-testaceis, hinc inde picecentioribus.—Long. corp. liu. 4-5.


Philonthus turbidus, Id., Col. Atl. 495 (1865).

Habitat S. Antão, S. Nicolão, S. Iago, et Fogo; sub quisquiliis parce latens.

A large and elongate *Philonthus*, which may be known by its somewhat *piceous*-black hue, by its prothoracic series being composed of about six, or seven (which appears to be the normal number), or even eight, punctures down either side of the disk, by its elytra (which are sometimes more diluted in hue) being deeply, rather closely, and sharply punctured, by its abdomen being slightly iridescent and with its punctures likewise coarse, though not quite so dense, and by its antennae being dark brown, whilst the palpi and legs are dull rufo-testaceos.

The *P. turbidus* is found principally at intermediate altitudes and beneath damp vegetable refuse, and is widely spread over the archipelago. I met with it in the Ribeira Fria and the Ribeira das Patas, as well as at Tarrafal, in S. Antão; at San Domingos, Sta Catharina, and in the Orgãos ravine, in S. Iago; and at the Monte Nucho, in Fogo. In S. Iago it was captured likewise by Mr. Gray, who also obtained it (during 1864) in S. Nicolão. Although nowhere abundant, it appears to be generally distributed throughout these various Atlantic Groups—occurring both at the Madeiras and Canaries; and it would seem indeed to have a very extended geographical range, being recorded by Erichson from Madagascar, whilst specimens have been communicated to me by Fauvel from the Mauritius, Assam, and Egypt.

§ IV. Prothorax (et caput) grosse punctatus, lineâ mediâ longitudinâ levii.

257. Philonthus tenellus.

*P.* angusto-filiformis, niger, elytris abdominque grosse grisco pu-
bescentibus; capite (subquadrato) prothoraceque utrinque parce et valde profunde punctatis; elytris densius ac multo subtilius subasperato-punctulatis; abdominis segmentis singulis (præsertim busalibus) convexus et postice grosse denseque punctatis; antennis piecis, ad basin, palpis pedibusque inæqualiter piceo-testaceis; palporum art° ult° acutissime conico.—Long. corp. lin. 1¾–2.


Habitat S. Antão, et S. Iago; inter lapillos, neenon in lutosis, ad margines aquarum, vel fluentium vel stagnantium, latitans.

A minute, narrow, filiform species, which may be known by its head and prothorax being very sparingly but most coarsely punctured on either side and unsculptured down the centre, by its antennæ being piceous, with their base and the legs piceo-testaceus, and by the terminal joint of its maxillary palpi being very acute but conical. I captured it sparingly at Tarrafal in the south of S. Antão, as well as at San Domingos and in the Orgãos ravine in S. Iago,—in both instances amongst either mud or wet shingle, at the edges of the streams and pools. It would probably therefore be met with more generally, if searched for in the proper situations. It appears to be conspecific with my P. tenellus, found in similar localities in the Canarian Group, and also closely allied to the Madeiran P. filiformis—which possibly, however, may be but a geographical modification of the European P. procerculus.

(Subfam. XANTHOLINIDES.)

Genus 156. LEPTACINUS.

Erichson, Käf. der Mark Brand. i. 429 (1837).

258. Leptacinus parumpunctatus.

L. nitidissimus, niger, elytris (extus seriatim punctatis) pauro dilutioribus neenon ad angulos posticos externos pellucido-testaceis; capite triangulari, utrinque valde profunde sed parce punctato, antice 4-sulcato; prothorace seriebus dorsalis circa 5–6-punctatis; antennis ferrugineis; pedibus piceo-testaceis.—Long. corp. lin. 2½–3.

Staphylinus parumpunctatus, Gyll., Ins. Suec. iv. 481 (1827).


Habitat S. Antão, S. Iago, Fogo, et Brava; sub quisquiliis, neenon in stereore, passim.
This common European *Leptacinus*—which occurs in the Madeiran and Canarian Groups—is widely spread over the Cape Verde archipelago, where it is found (both under refuse and in the dung of cattle) at low and intermediate altitudes. It was met with by Mr. Gray and myself at Tarrafal and Tabouga in S. Antão, and near the Porto da Luz in Fogo, and by myself at S*.* Catharina in S. Iago, as well as in the Ribeira do Sorno in Brava.

(Subfam. PÆDERIDES.)

Genus 157. **Scopâeus.**


259. **Scopaeus crassipes**, n. sp.

*S. subtilissime punctulatus, nitidus, minute sed vix dense cinereosericus, piceus; capite magno, convexo, subquadrato; prothoracessubovato, sœpis (sed hand semper) paulo rufescentio, basi in medio tenuiter carinato et breviter biimpresso;elytris evidentius dense punctulatis, postice plus minus dilutioribus; abdomine sub-opaco, densissime subasperato-punctulato, apice paulo dilutiore; antennis testaceis, in medio (interdum ubique, apice excepto) sœpis obsolete obscuris; pedibus crassiusculis, saturate testaceis.—Long. corp. lin. 1\(\frac{3}{4}\)–1\(\frac{1}{2}\).

*Habitat* S. Antão, S. Vicente, S. Iago, Fogo, et Brava; inter lapillos latens, per margines aquarum.

*Obs.*—*S. trossulo*, ins. Canariensium, valde affinis, sed vix ( nisi fallor) ejus varietas geographica: corpore paululum robustiore (sensim minus gracili), colore omnino obscuro, antennis vix brevioribus, articulis intermediis sœpis obsolete obscuratis, capite (submajore) prothoraceque etiam minutius sed elytris distinctius punctulatis, differre videtur.

A *Scopaeus* which is probably universal throughout the archipelago, being found amongst wet shingle at the edges of the streams and pools—where, however, it appears to be rare. I have taken it in the Ribeira da Babosa in S. Antão, at Madeiralzinho in S. Vicente, at San Domingos in S. Iago, at the Fonte of the Monte Nucho in Fogo, and in the Ribeira do Sorno in Brava; and in S. Antão it was found likewise by Mr. Gray. It is the representative in these islands of the European *S. levigatus*, of which it might almost be looked upon as a geographical modification. And it is equally near to the *S. trossulus*, of the Canarian Group,—from which however it differs in being altogether a trifle more robust (or less slender) and of a slightly darker
hue, in its antennae being appreciably shorter, with their intermediate joints (and indeed sometimes all but the apical ones) usually a little obscured, and in its head (which is, if anything, more developed) being, together with the prothorax, perhaps *rather* more minutely punctuated still, while the sculpture of its elytra, on the other hand, is distinctly coarser. As in many of the Scopsei, its legs are (in proportion to its size) considerably thickened—a structure which is perfectly in accordance with its subfossorial mode of life, amongst the damp stones and shingle where it principally occurs.

260. *Scopæus filiformis*, n. sp.

*S. creberrime subcoriaceo-alutaceus* (vix, saltem in capite prothoraceque, punctulatus), subopacus, minute et dense cinereo sericeus, piceo-ferrugineus; capite longiusculo, subtriangulari-quadrato; prothorace angusto, subobovato, testaceo vel fusco-testaceo, pos
tice tennissime carinato et obsoletissime biimpresso; elytris pos
tice dilutioribus; abdomen fusco-ferrugineo, apicem versus fere tes
taceo; antennis pedibusque brevibus, testaceis.—Long, corp. lin. vix 1\(\frac{1}{3}\).

*Habitat* S. Antão, S. Vicente, S. Iago, Fogo, et Brava; ad margines rivulorum, necon interdum sub quisquiliis humidis, latitans.

This is not only smaller and considerably narrower than the last species, but it is likewise paler and more densely clothed with a minute sericeous pubescence. Its sculpture is finer and closer—being (especially on the head and prothorax) thickly *alutaceous*, rather than punctulated, which causes the surface to be more opake; and its limbs are more pallid, shorter, and less thickened. Its head and prothorax are, *both* of them, relatively narrower; and the latter is either testaceus or brownish-testaceous, as well as straighter at the sides, and more obsoletely biimpressed in the centre behind. It is just as widely spread over the archipelago as the *S. crassipes*, and perhaps not quite so scarce, occurring in similar situations—amongst wet shingle &c. at the edges of the streams and pools, though occasionally also beneath damp vegetable refuse. I met with it in the Ribeira Fria and the Ribeira das Patas in S. Antão, at Madeiralzinho in S. Vicente, in the Orgãos ravine, as well as at S\(\text{\textsuperscript{a}}\) Catharina, in S. Iago, at the Fonte of the Monte Nucho in Fogo, and near the Povoação in Brava.

Genus 158. **Lithocharis.**

(Dejean) Boisd. et Lacord., *Fam. Ent. de Paris*, i. 431 (1835).
261. Lithocharis ochracea.

*L. subopaca*, dense fulvescenti-cinerce sericea, minute et crebre punctulata; capite subquadrato-triangulare, nigro, oculus magno; prothorace elytrisque subquadratis, plus minus infuscate rufo-ferruginis, illo (linea tenui subelevata obsoletissime carinato) horumque suturâ paulo rufescientioribus; abdomen fusco-ferrugineo, apice dilutioire, granulis nigrescentibus superadditis (transversim dispositis) partissime irroratione; antennis, palpis pedibusque testaceis.—Long. corp. lin. 1⅔–2.

*Paederus ochraceus*, Grav., Col. Micropt. 59 (1802).

Lithocharis ochracea, Woll., Ins. Mad. 590 (1854).


————, Id., Cat. Cat. Col. 587 (1864).

————, Id., Col. Atl. 506 (1865).

Habitat S. Antão, S. Iago, et Brava; inter quisquilia, passim.

A common European *Lithocharis* which is widely distributed over the Madeiran and Canarian Groups, and which has established itself pretty generally in the Cape Verde archipelago. It is however by no means abundant, though occurring under vegetable refuse at most elevations. It was captured by Mr. Gray and myself at Tabouga and Tarrafal, as well as in the Ribeira da Babosa &c., in S. Antão, at San Domingos, S°a Catharina, and in the Orgãos ravine in S. Iago, and in the Ribeira do Sorno in Brava. It may be known, *inter alia*, by its black, subtriangular head and large eyes, by its closely and minutely punctulated, densely sericeous surface, and by its prothorax being usually rufo-ferruginous, whilst the elytra are a little more infuscated, though with their suture appreciably paler. Its abdomen is brownish-ferruginous, and very sparingly besprinkled with a few blackish, subasperated, transversely-arranged additional granules (out of each of which arises a short bristle); and its limbs are wholly testaceous.

262. Lithocharis obsolenta.

*L. subgracilis*, subopaca, dense griseo sericea, minutissime et ereberrime punctulata; capite subquadrato-triangulare, nigro; prothorace, elytris et abdomen (apice diluto) vix piecescentioribus; antennis (gracilibus, muniliformibus) palpisque rufo-piceis, apicem versus magis testaceis; pedibus vel piceo-vel more saturate testaceis, tarsis breviusculis.


*Habitat* S. Antão, et S. Iago; in locis similibus ac præcedens.

*Obs.—Exemplaria immatura* primà facie *L. ochracea* aliquo modo, sed præsertim in colore, simulat; at corpus angustius est ac plerumque subminimus, puncturà etiam densiore et subiliore, capite minore angustiore, oculis minoribus, prothorace ne obsolete quidem subearinato, seutello minus triangulari magisque transverso (se. postice truncato), necnon antennis pedibusque subbrevioribus subgracilioribus, illis versus basin palpisque paulo obscuratis, antennarum art. ult. subminore, tarsisque sensim brevioribus. *Exemplaria matura* colore multo obscuriore, et cæt., à *L. ochracea* toto cælo dissectunt.

Of the European *L. obsoleta* (which occurs sparingly at Madeira) I captured a few examples, both in S. Antão and S. Iago; and although, when mature, its very much darker colour would, even alone, separate it from the *ochracea*, yet specimens which are *immature* are often pale, and resemble the latter so greatly in hue that they might at first sight almost be confounded with it. A more accurate inspection, however, will bring to light an abundance of features (apart from colour) to distinguish the *obsoleta* from the *ochracea*. Thus it is altogether narrower, and generally a little smaller; its punctuation is even still finer and closer; its head and eyes are considerably less developed; its prothorax is totally free from even the rudiments of a central keel; its seutellum is less triangular and more transverse (the apical portion being more truncate); its elytra (whether dark or pale) are concordantly, or with the suture *not* diluted in hue; and its antennæ and legs are slightly shorter and slenderer—the basal half, moreover, of the former, together with the palpi (and sometimes the tibiae), being a little infuscated. Its last antennal joint, too, is a trifle more abbreviate.

263. *Lithocharis debilicornis*.

*L. subopaca, pallida, parce pubescens; capite (lato, convexo, subtriangulari-quadrato, oculis parvis sed prominentibus) prothoraceque (breviusculo) rufo-ferrugineis, alutaceis, grosse sed leviter punctatis; elytris testaceis vel rufo-testaceis, rugosis punctatīs, ad basin seppius obsolete obscurioribus; abdomen ferrugineo, apice dilutioire; antennis (brevissimis, articulis intermediis brevibus moniliformibus), palpis pedibusque testaceis.—Long. corp. lin. 11/2–1 1/2.*

— *aegyptiaca, Mots., Bull. de Mosc.* 664 (1858).
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— — ——, Id., Col. Atl. 508 (1865).

Habitat S. Antão, S. Vicente, et S. Iago; hinc inde, inter quisqulias.

This very peculiar little species, although somewhat scarce, is widely distributed over the archipelago — where it occurs, beneath vegetable refuse, at low and intermediate altitudes. I met with it at Tarrafal, as well as in the Ribeira Fria, the Ribeira da Babosa, &c., of S. Antão, at Madeiralzinho in S. Vicente, and at Sª Catharina in S. Iago — in which island it was captured likewise by Mr. Gray. Most probably however it is, in reality, universal, since it appears to have a rather extended range, having been recorded from Egypt and even the south of Europe, as well as in the Madeiran and Canarian Groups.

The L. debilicornis may be known by its small size and totally pallid hue (the head and prothorax being rufo-ferruginous, the abdomen ferruginous, and the elytra either testaceous or rufo-testaceous), by its head and prothorax (the former of which is large, convex, squarish, and wide, with the eyes small but prominent, whilst the latter is short) being alutaceous and distinctly, but not deeply, punctured, and by its antennae (the intermediate joints of which are short and moniliform) being greatly abbreviated.

Genus 159. SUNITUS.

(Leach) Steph., Ill. Brit. Ent. v. 274 (1832).

264. Sunitus nigromaculatus.

S. elongatus, gracilis, rufo-ferrugineus, opacus, parce fulvescente pubesces; capite prothoraceque valde profunde, rugose et dense subreticularo-punctatis, illo magnō convexo subquadrate-rotundato (subtus parce regulariter punctato et in medio canaliculato), hoc obovato; elytris rugose sed paulo minus dense asperato-punctatis, sensim magis testaceis, singulis macula suffusā nigresecente in disco exteriore sitā plus minus evidenter ornatis; abdomine rugose aspero-punctato, segmento 5ª antice late nigro; antennis (brevibus), palpis pedibusque gracilibus, pallide testaceis.

Variat elytris concoloribus, pallidis, immaculatis; necnon (immaturo) corpore omnino pallidior.—Long. corp. lin. vix 2-2½.

Sunitus nigromaculatus, Mots., Bullet. de Moscou, 561 (1860).

Habitat S. Antão, S. Vicente, S. Iago, et Brava; inter quisqulias vulgaris.

Obs.—Species S. megacephalo, Canariensi, affinis, sed capite minus elongato (magis rotundato), oculis paulo majoribus, antennis multo brevioribus, abdomine minus grosse punctato, necnon elytris
non solum longioribus sed (in statu typico, maturo), ut in S. bimaculato, suffuse bimaculatis.

A *Sunius* which is widely spread over the archipelago, where we may be pretty sure that it is universal—occurring nearly everywhere beneath vegetable refuse, and at most elevations; and indeed it appears to have a very extended geographical range—being found likewise in Egypt (and probably, therefore, in the intermediate districts of northern and western Africa). It was taken by Mr. Gray and myself at Tarrafal, as well as in the Ribeira Fria, the Ribeira das Patas, &c., of S. Antão,—on Monte Verde and at Madeiralzinho in S. Vicente,—at San Domingos, S* Catharina, and in the Orgãos ravine, in S. Iago,—and in the Ribeira do Sorno, in Brava.

The *S. nigromaculatus* may be regarded as the representative in these islands of the Canarian *S. megacephalus*—from which, however, it differs in being, on the average, a trifle smaller, in its head being less elongate, or more rounded behind the eyes (which are a little larger), in its antennæ being considerably shorter, its abdomen less coarsely punctured, and in its elytra being not only longer, but with a more or less distinct cloudy spot on the outer disk of each—much as in the *S. bimaculatus*. This discal patch however is frequently quite obsolete, in which case the elytra are totally immaculate. In its narrow, slender body, its rufo-ferruginous head and prothorax (which are densely and roughly crowded with large, somewhat reticulated punctures), its ferruginous abdomen, and (apart from the spot, when present) its slightly paler elytra, as well as in its extremely pallid limbs, it agrees with its more northern ally*.

Genus 160. **Pãderus.**


265. *Pãderus Erichsoni.*

*P. alatus, nitidus; capite (subrotundato, oculis magnis), seutello abdominisque segmentis 2 apicalibus nigris; prothorace abdominisque segmentis 4 basalibus testaceo-rufis; elytris caraeulcis, profunde et rugose punctatis, parce subcinereo pubescentibus; antennis lon-

* The largely-developed, pedunculated head of the *Sunius* of this immediate type is so loosely attached, on account of the narrowness and flexibility of the neck, that it is very liable to become accidentally reversed, when the specimen is being mounted upon card; and until I had placed them beneath the microscope, and had discovered that the wrong side was uppermost, I was a good deal puzzled by certain examples in that predicament,—the more sparingly, and differently, punctured surface, added to the conspicuous central line, giving their head a very peculiar appearance.
giusculis, graciosculis, fusescentibus, artis 4 basalibus, palpis pedibusque rufo-testaceis, femoribus posticis (rarius posterioribus) apice nigris.—Long. corp. lin. 3-3½.


Habitat S. Iago; sub foliis aridis in elvis editioribus supra Sanctam Cathariam, copiose deprehensus.

Obs.—P. riparius, Europæum, primâ facie simulans, sed subgracilior, paulo minus rugose punctatus, oculis majoribus, prothorace antice angustiore, elytris antemisique sublongioribus, his gracilioribus palliidoribus, pedibus anticis semper (anterioribus sepis) omnino pallidis—nee femoribus nigro terminatis.

A Paederus which I captured abundantly on the mountain-slopes above S¹ Catharina, in the interior of S. Iago,—under dry leaves, beneath the shrubs of Jatropha curcas and Euphorbias; and a single specimen was also taken, by Mr. Gray, at S² Catharina itself. I have little doubt that it is the P. angolensis, described in Erichson’s Paper on supposed “Angolan” Coleoptera, with the diagnosis of which it agrees precisely—except that the apices of its intermediate femora are not usually nigrescent; but since such is the case sometimes, Erichson’s example, or examples, may have been in that predicament. Assuming it however to be identical with the angolensis (of which, I think, there cannot be much question), the specific title must still, of necessity, be changed, since it tends to perpetuate a serious geographical blunder; and therefore I have substituted that of Erichsoni, in its stead. I have already commented on the unfortunate confusion which arose through the fact of the collector, who was sent out to Angola (from Berlin), having touched at these islands en passant, and mixed up indiscriminately his material from the two regions thus widely separated from each other; and the Paederus we are now discussing affords a sad instance of this grievous want of accuracy, its very name having been borrowed from a country with which (in all probability) it has no concern.

In its general size and colour (the head and last two abdominal segments being black, whilst the elytra are cyaneous-blue, and the prothorax, together with the four anterior segments of the abdomen, clear testaceo-rufous) this Paederus has much the primâ facie aspect of the common European P. riparius; but it is altogether a trifle narrower and less coarsely punctured, its eyes are considerably larger, its prothorax is less widened in front, its elytra and antennae are a little longer, the latter are somewhat slenderer and paler, and its fore legs, and usually the intermediate pair also, are entirely immaculate
—though in rare instances the *intermediate* femora have their apex (like that of the hinder ones) nigrescent. Although described by Erichson (assuming it to be his *angolensis*) as distinct from the *iestuans* (an African species which has been recorded both from Senegal and Egypt), I am extremely doubtful, judging from the diagnosis, whether it is more in reality than a geographical phase of the latter—from which it seems to differ, mainly, in its paler antennae and darker scutellum. Still, without a type of the *estuans* for comparison, it is impossible to say for certain whether other (and more significant) characters may not exist.

(Subfam. PINOPHILIDES.)

Genus 161. **ŒDICHIRUS.**


266. **Œdicirus terminatus.**

*Œ. alatus*, nitidus, antice parciissime sed postice parce subcinerco pilosus; capite (subrotundato, oculus maximis, prominentibus), elytrorum dimidiâ parte antice, abdominisque segmentis 3 apicalibus nigris; prothorace (postice angustato, punctis perpaucis maximis, in dorso biseriatim dispositis, irrorato), elytrorum dimidiâ parte postice, abdominisque segmentis 4 basalius testaceo-rufis; coleopteris abdominelatoribus, basi truncatis, elytrorum dimidia parte postici, abdominisque segmentis 4 basali testaceo-rufis; coleopteris abdominelatoribus, basi truncatis, elytrorum dimidia parte postici, abdominisque segmentis 4 basalius testaceo-rufis; coleopteris abdominelatoribus, basi truncatis, elytrorum dimidia parte postici, abdominisque segmentis 4 basalius testaceo-rufis; coleopteris abdominelatoribus, basi truncatis, elytrorum dimidia parte postici, abdominisque segmentis 4 basalius testaceo-rufis; coleopteris abdominelatoribus, basi truncatis, elytrorum dimidia parte postici, abdominisque segmentis 4 basalius testaceo-rufis; coleopteris abdominelatoribus, basi truncatis, elytrorum dimidia parte postici, abdomen (segm. basali excepto) immarginato, segmentis singulis convexis necnon transversim punctato-trilinieatis, segm. ultro longe acutissimeque bicorni; antennis gracilibus, testaceis, articulis intermedii obscuratis; palpis longissimis, fusco-testaceis; pedibus pallide testaceis (genibus vix obscurioribus), tarsi antecis maximis, latissime dilatati.—Long. corp. lin. 3½—4.


*Habitat* S. Antão?, S. Iago, et Brava; sub quisquiliis humidis parce degens.

This curious Staphylinid—so like a *Pederus* in its red-and-black colouring, but so remarkable in the structure of its enormously elongated maxillary palpi and its greatly developed anterior feet, as well as in the two large acute spines which arm the apex of its (unmarginated) abdomen—is manifestly the *Œ. terminatus* of Erichson’s (so-called) “Angolan” Coleoptera. My remarks under the last species will doubtless, therefore, apply equally here; and we may be pretty
sure that the insect is not an "Angolan" one at all. At the proper season of the year it would perhaps be found to be universal (or nearly so) throughout the Cape Verde archipelago, as we saw what I believe to have been the pupa of it in several of the islands; but hitherto it is only in S. Iago and Brava that I have positive evidence (now before me) of its existence. I am satisfied however that (particularly) in S. Antão we met with it in an incipient state. It was captured by Mr. Gray and myself, beneath refuse, at S. Catharina in the interior of S. Iago, and by myself near the Povoação in Brava. In all probability it possesses a wide African range; at any rate I have an Egyptian example (taken by the late Mr. Melly) which resembles it so nearly that I am far from certain that it is more than a slight modification, or geographical variety, of the Cape Verde species.

The _Ö. terminatus_ is, on the average, rather larger and broader than the Sicilian _paederinus_; its head and prothorax (the latter of which is longer, and rather less widened anteriorly) are even still more sparingly punctured, and the punctures on the prothoracic disk are more evidently arranged in two longitudinal rows; its elytra are _very_ much less abbreviated, nearly rectangular at the shoulders (instead of being rounded off), and (instead of being wholly black) with their apical half bright testaceo-rufous; its abdominal segments are more convex, and the first one is distinctly margined; and its eyes and limbs (particularly the last joint of its maxillary palpi, and its anterior feet) are even more developed still—the intermediate articulations, moreover, of the antennae being appreciably infuscated. The _Ö. terminatus_, also, is winged; whereas the _paederinus_ (as indeed its extremely abbreviated elytra and rounded-off shoulders would indicate) is apterous.

Genus 162. **Palaminus.**


267. **Palaminus decussatus**, n. sp. 

_P. rufo-testaceus_, abdomen (apice excepto) ferrugineo, nitudus, parce et (præsertim postice) longe fulvescenti-cinereo pilosus; capite sub-triangulari (postice truncato) et una cum prothorace (transverso-quadrato sed postice angustiore) grosse et parce punctatis (punctis magnis sed haud profundis); oculis magnis; coleopteris abdomen latioribus, basi truncatis, ad humeros subrectangulis, ad latera paulo rotundatis, postice arcuato-emarginatis, profundius sed paulo minus grosse punctatis; abdomen immarginato, segmentis singulis convexis et lineis obliquis decussatis (in 4 basalibus) reticulato-impressis, segnum ultor acutissime bispinoso; antennis (gracilibus), palpis (longissimis) pedibusque pallide testaceis; pedibus anteis
crassiusculis, tibiis latis triangularibus, tarsis valde dilatatis.—
Long. corp. lin. \(1\frac{3}{4}\)-vix 2.

**Habitat** S. Antão, S. Vicente, S. Iago, et Brava; inter quisqulias, præsertim in intermediiis editioribusque, rarior.

One of the few Coleopterous forms detected in these islands which may be said to tend towards the New World, rather than the Old; for all the _Palamini_ which have hitherto been brought to light are essentially American. Still, in a geographical point of view, I do not lay much stress upon this isolated fact; for as these minute Staphylinids are most easily transported by accidental human agencies, and since Sugar-canes, Bananas, and other Tropical plants have long been cultivated in the Cape Verde archipelago, it might well have been introduced (along with roots, or possibly in some other manner) from the West-Indian islands. But, be this as it may, it seems (although decidedly scarce) to be so generally distributed over the Group that we may anticipate that it will be found ultimately to be universal,—occurring, as it does, for the most part, beneath vegetable refuse (especially of Sugar-canes and Maize) at intermediate and lofty altitudes. It was captured by Mr. Gray and myself in the Ribeira Fria and the Ribeira das Patas in S. Antão, as well as at Madeiralzinho and on the summit of Monte Verde in S. Vicente, and by myself in the interior of S. Iago, and in a Banana-ground above the Povoação in Brava.

In its _generic_ characters of greatly-developed maxillary palpi and anterior feet, as well as in its unmargined abdomen (the apex of which is furnished with two acute spines), and the structure of its elytra and hinder tibiae, _Palaminus_ has a good deal in common with _Edichirus_—though most of the characters are less strongly expressed than is the case in that group; but (amongst many other points) in its _front_ tibiae being considerably dilated it differs from the latter. In more specific details, apart from its _comparatively_ minute size and pale hue, the _P. decussatus_ may be known by its shorter head and prothorax (which are more evenly and densely, though at the same time sparingly, punctured), its more pilose surface, and the very remarkable sculpture of its first four abdominal segments—which are impressed with regular and obliquely-crossing lines (like _lattice_-, or _trellis_-work), but wholly unpunctured. Its colour is rufo-testaceous, with the limbs extremely pallid, and the abdomen (which is brownish-ferruginous) _comparatively_ dark*.

* Judging solely from the diagnosis, the present _Palaminus_ has probably a good deal in common with Erichson’s _P. variabilis_ (from the West Indies and
**STAPHYLINIDÆ.**

**Genus 163. PINOPHILUS.**

268. Pinophilus fossor, n. sp.

*P.* subcyllindrical–linearis, niger (sed, capite excepto, obsolete sub-piecescente tinctus), griseo pubescentis; capite subtriangulari, nito, grosse et parce punctato punctulisque minoribus parce irrortato, oculis magnis, prominentibus; prothorace elongato–quadrate, pos-tice vix angustiore, angulis posticis rotundatis, subopaco, minu-tissime et ereberrime punctulato (quasi alutaceo) punctisque ma-joribus sed levibus regulariter obsito, in disco postico tenuiter carinato; coleopteris abdomeineque subopacis, illis (prothorace paulo longioribus) dense et rugose punctatis, hoc marginate, levius punctato, subiridescente, apice ferrugineo; antennis gracilibus, testaeis sed piceo variegatis; palpis saturate testaceis; pedibus crassis, testaceis (anticis paulo rufescentioribus atque etiam crassioribus, tarsis latissime subrotundato–dilatatatis).—Long. corp. lin. 4½.

**Habitat** S. Iago; sub quisquiliis humidis fodiens, rarissimus.

Two examples of this fine *Pinophilus* were captured by myself, beneath damp vegetable refuse, amongst Sugar-canes, at the Boa Entrada of S*ª* Catharina, in the interior of S. Iago. It may be known by its narrow, elongate outline, deep–black, shining, subtri-angular, and coarsely (but sparingly) punctured head, and by the faintly *piceous*–black hue of the rest of its surface, except the limbs—it's legs (especially the anterior ones) being incrassated and testaeous, whilst its antennæ and palpi are slender and of a more piceous tint! Its prothorax is elongate–quadrate, very slightly narrowed posteriorly, with the hinder angles rounded, most minutely and thickly punctulate (which causes it to be subopake, and as it were alutaceous), and also densely beset with larger but exceedingly light punctules; its elytra are closely but roughly punctured, and its abdomen (which is margined at the sides, ferruginous at the apex, and subiridescent) much more finely but quite as densely so*.

*Columbia*—at any rate with his *fifth* variety of it, or form, which is thus enun-ciated: “Duplo vel triplo minor (long. 1½ lin.), pallide flavo-testaceus, in-maculatus, antennis pedibusque albis.” Still that species is described as having the last antennal joint abruptly incrassated, and its prothorax widely emarginate in front, so as to cause the angles to be rather acute—which does not apply to the Cape Verde member of the genus; and therefore I do not think that it would be safe, in the absence of a type for comparison, to identify it with the *variabilis*. Moreover it is far from unlikely that even Erichson's so–called “var. 5” may be specifically distinct from the other four states to which he calls attention.

* The Cape Verde *Pinophilus* is a little allied to the Egyptian *P.* *brevicollis*; but it is rather larger and darker (or less piceous); its head particularly is
(Subfam. OXYTELIDES.)

Genus 164. BLEDIUS.


269. Bledius vitulus.

B. capite prothoraceque grosse alutaceis, subopacis, illo piceo et utrinque cornu lamelliformi erecto (in maribus altissimo subcultri-
formi sed ad apicem oblique subemarginato-truncate) instructo, hoc clare rufo-ferrugineo, transverso-quadrato, ad latera recto, basi rotundato, parce et grosse (sed vix profunde) punctato neennon argute canaliculato; elytris abdomineque nitidioribus, illis densius sed minus grosse punctatis, testaceis (sutura anguste obscuriore), hoc fere impunctato, fusco-testaceo, segmentis 6o et 7mo utrinque (rarius omnino) suffuse nigrescentibus; antennis piceo-ferrugineis, basi clarioribus; pedibus testaceis, tibias anticas (rarius omnibus) picescentioribus.—Long. corp. lin. 2\frac{1}{2}—vix 3\frac{1}{2}.


—— ——, Id., Col. Atl. 514 (1865).

Habitat S. Vicente; in Salinis pone oras maritimas captus.

I took many examples of this large Bledius (which is closely allied to the B. bicornis of Southern Europe) on the slimy, brackish mud of some small Salinas, which had been dug on the sandy flats immediately behind the sea-beach in S. Vicente—about a mile to the south of Porto Grande. We may consequently expect to meet with it in salt places generally, and particularly perhaps in the eastern islands of the Group. Apart from its large size (for a Ble-
dius), it may be known by its head being piceous and armed on either side with an erect lamelliform process (small in the females, but large and somewhat coulter-, or falchion-shaped in the opposite sex—though truncated, and even subemarginate, at its apex), by its prothorax being clear rufo-ferruginous, squarish, much straightened at the sides, and (like the head) alutaceous, but sparingly besprinkled with large punctures, by its elytra being more or less testaceous, and more thickly punctured, by its abdomen being almost unsculp-
tured, and brownish-testaceous, but blackened on either side of its sixth and seventh segments, and by its antennae being piceo-ferru-
ginous, whilst the legs are testaceous, but with their tibiae slightly

blacker, as well as more deeply (but much more sparingly) punctured, with the eyes more developed and prominent; its prothorax and elytra are longer, and the former is very much more finely punctulato; its antennae are more varie-
gated (the apical portion of most of the joints being infuscate); and its pubes-
cence is of a less fulvous hue.
Infuscated. It appears to be conspecific with a *Bledius* (which Fauvel has recently identified with the *B. vitulus* from Arabia) captured by myself at the edges of the salt lake of Januvio, in Lanzarote—one of the eastern islands of the Canarian Group; for although the lamelliform process of its male sex may *perhaps* be a little more developed than is the case in the Cauarian examples (if indeed, amongst the latter, *I possess* undoubted males), in all other respects it agrees perfectly with the Lanzarotan species, and the greater or less development of the frontal processes in these cornuted *Bledii* is a matter of but trifling importance.

**Genus 165. OXYTELUS.**


**270. Oxytelus depauperatus, n. sp.**

*O. niger*, subnitidus; capite prothoraceque leviter inaequaliter punctatis, hoc transverso, in medio leviter longitudinaliter 3-sulcato (sulcis externis paulo flexuosis et antice evanescentibus), versus latera longitudinaliter strigosos, utrinque in medio late impresso; elytris testaceis, in regione scutellari sæpius paulo obscuratis, punctatis et minus grosse strigosis; abdomine piceo-nigro, apice dilutioire, alutaceo; antennis testaceis, apicem versus sensim obfuscatis; pedibus pallide testaceis.

Mas capite magiore et paulo magis rotundato, sed oculis subminoriibus (aut potius vix ad basin ejus postice ductis); prothorace (vix piceoecentiore?) antice sublatiore.—*Long. corp. lin. circa* 1 3/4.

**Habitat** S. Antão, et S. Iago; hinc inde in stercore bovino.

**Obs.**—Species *O. piceo* (Europeo, necnon in ins. Maderensibus Canariensibusque occurrenti) affinis, at major, minus profunde punctata sed tamen distinctius strigulosa, capite postice integro ( nec canaliculato), elypeo magis depresso et apice haud elevato, necnon antennis brevioribus ac pallidiorebus.

This is the only *Oxytelus* which has hitherto been detected in the Cape Verde archipelago; and even it appeared to be scarce, though perhaps at a different season of the year it might be more abundant. It is found in the dung of cattle; and the few specimens which I have seen were taken by myself—at Tarrafal and in the Ribeira da Babosa in S. Antão, and at San Domingos in S. Iago. In its testaceous elytra and general details it is closely allied to the European *O. piceus* (which occurs likewise in the Madeiran and Canarian Groups); but it is smaller and less deeply punctured, though rather more distinctly strigulose both on its elytra and towards either side of its prothorax; its head is free from an abbreviated channel be-
hind, with the clypeus more depressed and not raised at the apex; and its antennæ are shorter and paler.

Genus 166. TROGOPHLEÜS.
Mannerheim, Brachél. 49 (1831).

271. Trogophleus transversalis.

*T. niger*, subnitidus, subcinereo pubescent, dense et distincte punctulatus; ocellis sat magnis, prominentibus; prothorace breviter subcordato, basi profunde transversim notato, in disco antico inaequali (sc. foveolis obsoletis impresso); elytris amplis, depressiusculis, apice ferrugineo-dilutoribus; abdomen multo minutus punctulato; antennis nigrescentibus, basi paulo dilutoribus; pedibus piceo-testaceis.—Long. corp. lin. 1½.


**Id.,** Cat. Can. Col. 598 (1864).

**Id.,** Col. Atl. 518 (1865).

*Habitat* S. Vicente; rarissimus, in intermedii bis deprēhensus.

A *Trogophleus* which occurs, though very sparingly, both in the Madeiran and Canarian Groups, and which appears to be equally scarce in the Cape Verdes—the only two examples which I have seen having been taken by myself in S. Vicente. It may be known by its rather large size (for a *Trogophleus*), its dark hue, its considerably developed, squarish elytra, the extreme hinder portion of which is diluted, or rufo-ferruginous, and by its antennæ being nearly black, whilst the legs are piceo-testaceous. Its head, prothorax, and elytra are densely, and somewhat coarsely, punctured; and its prothorax (which is a good deal, and rather suddenly, narrowed behind) is remarkable for the very deep transverse impression at the base, while the fore disk is merely branded with a few shallow, confused, obsolete foveæ. Judging from the specimens before me, it would seem to have its elytra less broadly ferruginous behind in the Cape Verde archipelago than is the case with it in the Madeiras and Canaries.

272. Trogophleus dilutus, n. sp.

*T. pallidulus*, subnitidus, cinereo pubescens; capite prothoraceque subcoriaceis, vix perspicue (sed oculo fortissime armato minute et parce) punctulatis, illo majuscelo latiuscelo piceo-ferrugineo, ocellis parvis, hoc brevi, clare rufo-ferrugineo, basi leviter transversim notato et obsoletissimé subcarinato, in disco antico subinaequali (sc. foveolis obsoletis impresso); elytris rufo-testaceis, distinctius punctatis; abdomen testaceo-fuseo, laxe reticulato-coriaceo pune-
tulisque minutissimis parce irrato; antennis (art. ult. majuseulo) tibisisque ferrugineis, illis ad basin, femoribus tarsisque testaceis.
—Long. corp. lin. 1½.

Habitat S. Antão, et S. Iago; inter quisqulias in humidis, rarissimus.

This is a little smaller than the last species; and it may be known by being pale, instead of black,—the head (which is rather large and wide, with the eyes small) being pieceo-ferruginous, whilst the prothorax is clear rufo-ferruginous, the elytra rufo-testaceous, and the abdomen, antennae, and tibiae brownish-testaceous, except the base of the second, the femora, and tarsi, which are testaceous. Its head and prothorax are somewhat coriaceous (though sparingly beset with minute punctules, when viewed beneath the microscope); and the latter has much the same kind of impressions as the T. transversalis—only considerably shallower, and the basal (subarcuata) one having a slight tendency to be interrupted in the middle by a faint, obsolete carina. The only two specimens which I have seen were taken by myself—one, beneath wet vegetable refuse, at Tarrafal in the south of S. Antão, and the other in the Ribeira dos Orgãos of S. Iago.

273. Trogophleus oculatus.

T. angustulus, niger (aut subpieceo-niger), subnitisus, subtiliter cinereo pubescens; capite prothoraceque minute et dense punctulatis, oculis magnis (fere at basin capitis postice ductis), hœ breviter subcordato, in disco postico utrinque longitudinaliter bimpresso; elytris distinctius punctatis; abdomine dense et minutius rugulosō-punctulato; antennis pedibusque brevisseulis, illis gracilissulis nigro-piceis basi paulo rufescientioribus; pedibus saturate testaceis.—Long. corp. lin. vix 1¼.


Habitat S. Antão, et S. Iago; in locis similibus ae præcedens.

The two examples (one of which I took in S. Antão, and the other in S. Iago) from which the above diagnosis has been compiled do not seem to me to differ specifically from the Canarian T. oculatus—though their eyes are perhaps a little less developed, and their punctation just appreciably finer. The species belongs to much the same type as the European T. bilineatus; but it is a trifle smaller and narrower, with its elytra somewhat less enlarged, its eyes distinctly longer, and its limbs perceptibly shorter. Still, since the examples before me are not very satisfactory ones, I will not be
absolutely certain that they should not rather be referred to some other, but very closely allied, species.

274. *Trogophloeus bledioides.*

*T*. piceo-niger, subopacus, subtiliter cinereo pubescens; capite pro-thoraceque minutissimse et densissimse punctulatis (aut quasi grosse granulato-alutaceis), illo magno lato ovali, mandibulis majusulis, hoc angustulo longiusculo cylindrico-cordato integro (i.e. haud foveolato); elytris crebre, argute et distincte punctatis; antennis brevisus, nigrescentibus, ad basin paulo dilutioribus; pedibus saturate testacis.—Long. corp. lin. $\frac{3}{4}-1$.


_Habitat_ S. Antão, et S. Vicente; in humidis et subaquosis degens.

The very minute size of this little *Trogophloeus* would, of itself, distinguish it from the preceding members of the genus; but it may be further known by its head and prothorax (the former of which is relatively large and oval, whilst the latter is narrower or less transverse than is usually the case, and quite _free from forcee_) being so closely and minutely punctulated that they have more the appearance of being coarsely alutaceous, or granulate, by its elytra being sharply, densely, and conspicuously punctured, by its antennæ being rather short and dark, and by its mandibles being a good deal developed. I have taken it sparingly in damp places of low and intermediate altitudes,—namely at Tarrafal in the south of S. Antão, and at Madeiralzinho in S. Vicente.

(Subfam. _PIESTIDES._)

Genus 167. **ISOMALUS.**


275. *Isomalus hesperidum.*

*I.* niger, nitidissimus, glaberrimus, valde depressus, subtilissime stri-gulosus sed fere impunctatus (oculo fortissimse armato punctulis minutissimis parce irroratus); capite magno, subquadrate, plano, oculis parvis; prothorace cordato, postice fortiter angustato, lateribus vix pone medium leviter exesis, denticulum anguliformem efficientibus, in dorso (præsertim postice) latissimse longitudinaliter depresso, aipe intra angulos anticos utrinque foveolato; elytris brevisus, singulis puncto discali impressis; antennis fusco-piceis, ad basin pedibusque clare piceis, tarsiis pallidioribus.—Long. corp. lin. $\frac{2}{4}$. 

*Habitat* S. Vicente; à DD. Gray et Clark, Decembri 1856, semel captus.

The single specimen described above was amongst the few insects which were collected by Mr. Gray and the Rev. Hamlet Clark, during their day's sojourn at S. Vicente, in December 1856; but it is the only one that I have yet seen. I have no reason to doubt the correctness of its professed *habitat*; but it is certain that we did not meet with any traces of it during our late (and more careful) explorations in the same island; and therefore I cannot but feel that further evidence would be desirable, both concerning its habits and its precise locality—an observation, I may add, which applies to no less than three of the species (namely the present one, the *Xenoglaucus politus*, and the *Trigonorhinus pardalis*) which were handed over to me by Mr. Clark as having been captured by himself and Mr. Gray in S. Vicente. Judging however from its extremely flattened form and *prima facie* aspect, I should be inclined to suspect that it may perhaps be found within the crevices of the mud in saline spots around Porto Grande, in which they appear to have searched—though this is merely a conjecture, and must not in any degree be trusted.

In its black, highly polished, exceedingly glabrous, almost unsculptured, and very depressed surface, the *I. hesperidum* is totally distinct (apart from its *generic* features) from every other Staphylinid with which we have here to do; and its largely developed, subquadrate, flattened head, and small eyes, in conjunction with its cordate, posteriorly attenuated prothorax, which is widely impressed down the disk (particularly behind) and has a little shallow excavation in the centre of either side (which shapes out a minute angular denticle), and the conspicuous puncture in the middle of each elytron, will still further tend to characterize it.
(1) For the 3 species\(^1\) the habitats of which are marked thus\(^+\), I consider that more conclusive evidence is required before it can be looked upon as absolutely certain that they were really captured in the Cape Verdes.

(2) The species in italics have not, so far as I am aware, been observed hitherto except in the Cape Verdes,—though we may be quite sure that a proportion of them will sooner or later be detected elsewhere, and it is possible that certain others of them may, in reality, be but geographical modifications of species (the names of which, preceded by an \(\leftarrow\), I have usually indicated within brackets) which are already known.

(3) As an aid to the eye, I have added the letters M and C to those species which have been observed in the Madeiran and Canarian Groups. There are certain ones, however, which do not appear to be quite identical with those of the above-mentioned archipelagos, though at the same time so nearly allied to them that (even whilst describing them as new species) it is doubtful whether they are more in reality than geographical modifications of the latter. To such forms as these I have appended an \(m\) or \(c\), as the case may be; and I may add that for the various problems connected with the question of geographical distribution, they may be regarded practically as conspecific with their more northern representatives.

\(^1\) *Trigonorhinus pardinus*, *Xenoglossus politus*, and *Isomatus hesperidum,*—all communicated by the Rev. Hamlet Clark, and supposed to have been taken by himself and Mr. Gray during their day’s sojourn at S. Vicente in December 1856.
## INDEX TOPOGRAPHICUS.

### Fam. 1. Cicindelidæ.

1. **Cicindela, L.**
   1. *hesperidum*, W. [←*littoralis*, F.]  
   2. *ægyptiaca* (Klug), Dej.

### Fam. 2. Carabidæ.

**Fam. 2. Carabidæ.**

(=Carabides.)

2. **Calosoma, Weber.**
   4. *tegulatum*, W. [←*indagator*, F.]  
   5. *imbricatum*, Klug

**Fam. 2. Carabidæ.**

(=Carabides.)

3. **Dyschirus, Bon.**

(=Lebiades.)

4. **Platytarus, Fairm.**

5. **Tarus, Clairv.**
   8. *alutaceus*, W.

6. **Dromius, Bon.**
   11. *attenuatus*, W.  
   12. *submaculatus*, W.

7. **Metabletus, Göbel.**
   13. *Grayii*, W.

8. **Blechrus, Mots.**
   14. *stripicollis*, W.

9. **Amblystomus, Erich.**
   15. *viridulus*, Erich.
   16. *lineatus*, W.

10. **Xenothorax, W.**
    17. *hexagonus*, W.

11. **Masoreus (Ziegl.), Dej.**
    18. *spinipes*, W.
    19. *ascendens*, W.

(=Chlaeniiides.)

12. **Chleus, Bon.**
    20. *uncisignatus*, W.
    22. *consanguineus*, W. [←*Boisduvalii*, Dej.]

(=Pterostichides.)

13. **Pogonius (Ziegl.), Dej.**
    23. *Grayii*, W.

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Note: The table above lists the species under each family with references to various authors. The abbreviations next to each species name indicate the author and possibly additional information such as the type of study or collection.
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111. Calomicrus, Steph.
   161. taniatus, W. .................................................. * * * *

Fam. 39. Halticidae.
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   162. Dohrniana, W. .................................................. * * * *
   163. leviceps, W. [←? melena, Ill.] ................................ * *
   164. subatra, W. [←? atru, Hoffm.] ................................ * *

   (Aphthona, Chev.)
   165. leviscina, W. [←? euphorbie, Schr.] ......................... * * * *
   166. signatirious, W. [←? flaviceps, All.] ...................... * * * *

113. Longitarus, Lat.
   167. stenocyphon, W. [←? persimilis, W.] ....................... m c * *
   168. laxicornis, W. [←? stenocyphon, W.] ....................... m c * *

114. Argosimus, W.
   169. epilachnoides, W. .............................................. *
   170. obscurepennis, W. .............................................. *

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115. Aspidomorpha, Hope.
   171. cineta, F. ........................................................ * *

Fam. 41. Coccinellidae.
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   172. vicina (Dej.), Muls. .......................................... * *

117. Exochromus, Redt.
   173. nigripennis, Erich. .............................................. *

118. Coccinella, L.
   174. 7-punctata, L. ................................................. M C * *
   175. artemisie, W. .................................................... * *

119. Scymnus, Kugel.
   176. carbonarius, W. .................................................. *
   177. pallidulus, W. .................................................... *
   178. nigripictus, W. [←? canariensis, W.] ....................... m c * *
   179. posticus, W. [←? floricola, W.] ............................. m c * *
   180. floricola, W. ..................................................... * *
   181. fractus, W. [←? maculosus, W.] ............................. m c * *
   182. picturatus, W. [←? maculosus, W.] ......................... m c * *
   183. maritimus, W. [←? maculosus, W.] ......................... m c * *
   184. inconspicuus, W. ................................................ *
   185. depressuscus, W. ................................................ *

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   186. tristis, F. ..................................................... M C * *

121. Oxycura, Erich.
   187. hegeteroides, Erich. .......................................... *
   188. ebenina, W. [←? hegeteroides, Er.] ...................... * *
   189. castanea, W. ..................................................... *
   190. pedinoides, Erich. ................................................ *
   191. levis, W. [←? pedinoides, Er.] ............................. * *
   192. cribrata, W. [←? pedinoides, Er.] ......................... * *
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APPENDIX.

ADDENDA ETC.

TO THE

'COLEOPTERA ATLANTIDUM.'

I stated in the Preface to this volume that, although pertaining in reality to the more northern archipelagos, I nevertheless thought that it would not be inadmissible to call attention, here, in a short Appendix, to a few additions to the 'Coleoptera Atlantidum' which have been brought to light since the publication, in 1865, of that work. I have, however, but four actual novelties to record, the whole of which are from the Madeiran Group,—one (Scymnus epistemoïdes) having been captured, several years ago, by the late Mr. Bewicke, in Porto Santo, and identified wrongly, at the time, with a cognate form; whilst another (Eunectes helvolus) was discovered, more recently, in Madeira proper by Sr Moniz; and the remaining two (Cephennium australé and Aleochara clavicornis,—which raise the entire number of species detected in the Madeiras to 68S) were taken by myself, during the few days when we touched at Funchal, in Mr. Gray's yacht, on our outward cruise to the Cape Verdes.

But, apart from these, there are a certain number of corrections to be made in nomenclature, and two fresh habitat-islands to be noted,—which may tend to give more significance to an Appendix which might otherwise have been somewhat brief.

Fam. DYTISCIDÆ.

Page 71 (genus EUNECTES). After species 213, add:—

Eunectes helvolus.

Eunectes helvolus, Klug, Symb. Phys. 33. 3.
— helvolus, Id., haj. op. 36.

Habitat Maderenses (Mun.), in Salinis ad "Paul do Mar" sitis à Dom. Moniz captus.

Examples of this Eunectes have been taken by Senhor Moniz at Paul do Mar, in the west of Madeira proper—from amongst plants of Ruppia rostellata, Koch, in the briny water of a Saltern. It would appear, therefore, to be a saline species—a circumstance to which I have called attention, at page 36 of this volume, whilst commenting on its probable habitat in the Cape Verde archipelago. It is doubtless a species of a wide African range; and I have already expressed my belief [vide 'Ann. Nat. Hist.' vii. 99] that Aubé was mistaken in treating it as a variety of the almost cosmopolitan E. sticticus.

Fam. HELOPHORIDÆ.

P. 74 (genus OCHTHEBIUS).

(Sp. 223) Ochthebius subpictus.

Add Madeira proper to the habitat of this Ochthebius; for although the individuals taken by myself in Porto Santo were all that had been observed until quite lately, a specimen has been communicated by the Barão do Castello de Paiva which was captured in Madeira proper. Being found in the brackish streams in Porto Santo, it is not improbable that it may occur likewise in water which is almost, or even entirely, saline: at any rate in the same bottle which contained it there are examples of the Calobius Heeri, which resides amongst Confervae in the small pools of actual sea-water (along the rocky shores both of Madeira and Porto Santo); and I cannot but think it likely, therefore, that this single Ochthebius subpictus may perhaps have been captured in company with the Calobii.

Fam. HYDROPHILIDÆ.

P. 77. (genus PHILYDRUS).

(Sp. 232) Philydrus melanocephalus.

As in the case of the last species, Madeira proper may be added to the habitat of this Philydrus—examples of it having been captured, in company with the Eunectes helvolus, by Senhor Moniz, in a Saltern at Paul do Mar. It abounds in Porto Santo; and although
found in pools and streams generally, it appears to prefer water which is more or less brackish. It will probably be eventually ascertained to be universal throughout the whole of these Atlantic Groups, wherever there is sufficient moisture to favour its mode of life.

**Fam. CUCUJIDÆ.**

P. 135 (genus **SILVANUS**).

(Sp. 387) Silvanus unidentatus.

For this read Silvanus bidentatus, Fab., instead of "unidentatus, Oliv." On examining it afresh, and more critically, I find that it should be referred to the former of the above-mentioned species, rather than (as I had concluded) to the latter. And I may add that the S. bidentatus differs from the *unidentatus* in being a little larger and more coarsely sculptured, in its limbs being proportionately a trifle longer, and its eyes more developed, and in its prothorax (which is more evidently bisulcate down the disk) being a little more sinuate (or less straightened) at the sides, with the anterior angles a great deal more produced, and even the basal ones just appreciably more prominent—so as to occasion the prothorax to appear, relatively, a trifle less narrow behind.

**Fam. HISTERIDÆ.**

P. 169 (genus **SAPRINUS**).

(Sp. 485) Saprinus ignobilis.

De Marseul, without stating the reason why, has changed [vide L'Abéille, i. 353 (1864)] the title of my *Saprinus ignobilis* into that of *S. Wollastoni*. I think it sufficient just to call attention to the fact; for I must own that I do not understand on what principle the alteration has been made.

**Fam. CURCULIONIDÆ.**

P. 252 (genus **RHYNCOLUS**).

(Sp. 706) Rhyncolus crassirostris.

For the specific name *crassirostris* read *pinipotens*—Mr. G. R. Crotch having called my attention to the fact (likewise referred to.)
I perceive, by Lacordaire) that the former title was preoccupied by Perris, in the ‘Ann. de la Soc. Linn. de Lyon’ (sér. 2, iv. 147), for a *Rhyncolus* from the south of France.

**Fam. COCCINELLIDÆ.**

P. 383 (genus SCYMNUS). After species 1054, add:—

*Scymnus epistemoïdes*, n. sp.

*S. ellipticus*, niger aut subpiceo-niger, nitidulus, leviter punctulatus, et parce cinereo pubescens; prothorace breviter subconico, concolori; elytris subventricosis; labro, antennis, palpis pedibusque infuscate testaccis.—Long. corp. lin. \( \frac{3}{4} \).


*Obs.*—Species nigra, aptera, *S. limnichoides* propinquans; sed subminor (?), magis elliptica (i.e. antice et postice subacutior), vix minus nitida, et conspice levius minutiusque punctata, prothorace magis conico (antice sensim angustiore), etiam ad latera concolori, lineā basali magis per basin ipsissimam sitā, elytris paulo magis ventricosis (pone basin utrinque magis rotundatis).

The single example from which the above diagnosis has been compiled was taken in Porto Santo, several years ago, by the late Mr. Bewicke, and was inadvertently identified by myself with the *S. limnichoides*—to which in its size, general affinity, apterous body, and dark colour it closely approaches. The specimen having however, since the death of Mr. Bewicke, fallen into my possession, I am enabled to examine it with greater care, and I now perceive that it is unquestionably distinct from the *limnichoides*—though belonging clearly to the same type. Whether it be a trifle smaller than that species I can scarcely say, from the evidence afforded by a single individual; but it is considerably more elliptical in outline, or sharper before and behind (the prothorax being more conical, or attenuated in front, and the elytra more rounded outwards behind the shoulders); it is also much more lightly, and finely, punctuated; and its prothorax, which has the basal line placed even still nearer to the extreme edge, does not appear (at any rate in the example before me) to be diluted in hue towards the sides. Although there is no label appended to it, I have said that it was captured in Porto Santo because I distinctly recollect that it was communicated to me by Mr. Bewicke as found by himself in that island.
Fam. SCYDÆNIDÆ.

P. 449. After the genus SCYDÆNUS, add:—

Genus CEPHENNIIUM.
Müller, Mon. d. Amésekn. 12 (1822).

Cephennium australe, n. sp.
C. ellipticum, nitidulum, parce sed grosse fulvo-cinereo pubescens, remote sed parum profunde punctatum; capite prothoraceque pallide rufo-ferrugineis, illo convexo, postice ad latera subrecto et anguste marginato; coleopteris píccis, vel ferrugineo-píccis, ad basin ipsam foveâ mediâ rotundatâ utrinque impressis; antennis pedibusque testaceis.—Long. corp. lin. $\frac{4}{2}$.

*Habitat* Maderenses (*Mul.*), a meipso in castanetis editioribus longe supra urbem Funchalensem mense Decembri, a.d. 1865, parce deprehensum.

*Obs.*—Species *C. thoracico*, Europæo, minor, angustior, minus polita, paulo densius punctata, necon omnino pallidior—sc. capite prothoraceque pallide subrufescéntibus, elytrisque plus minus pírecéntibus.

I took three examples of this interesting little Cephennium (which introduces an entirely new, and most important, Scydænideous genus into the Atlantic-island fauna) on the 19th of December 1865, while touching at Madeira on our outward route to the Cape Verdes. They were captured by sifting dead leaves and rubbish, in the chestnut-woods at the Mount, on the hills above Funchal; but their extremely minute size rendered them not very easy to detect. They are smaller and narrower than the European *C. thoracicum*; also less highly polished, rather less remotely punctured, and considerably paler—their head and prothorax being pale rufo-ferruginous, and their elytra more or less pírecious; whilst the limbs, which are slender, are brownish-testaceous.

Fam. STAPHYLINIDÆ.

P. 476 (genus ALEOCHARA). After species 1312, add:—

Aleochara clavicornis.

*A. nigra*, elytris, antennarum basi, palpis pedibusque fusco-testaceis, nitida, grosse sed vix dense fulvo pubescens, parce et subasperate

Aleochara clavicornis, Redt., Fau Austr. 822 (1849).

— ——, Kraatz, Nat. der Ins. Deutsch. ii. 108 (1858).

Habitat Maderenses (Med.), juxta mare in urbe Funchalensi a meipso mense Decembri, a.d. 1865, semel capta.

I met with a single specimen of this little Aleochara, immediately behind the sea-beach, at Funchal, in Madeira proper—during the few days that we touched there, in December 1865, on our outward route to the Cape Verdes. Although occurring in central Europe, it appears to be found more particularly in Mediterranean latitudes; and I may add that I took several examples of it, some years ago, in the vicinity of Lisbon—a fact indeed which suggests the possibility of its having perhaps been introduced into Madeira (like, doubtless, many of the stercoraceous Staphylinidae), along with cattle, from Portugal. The Madeiran individual was captured on the wing; and we may expect that the species will shortly become abundant in the island, if indeed this is not the case already. Although scarcely agreeing with the diagnosis given by Kraatz (particularly as regards its somewhat larger size), I am indebted to M. Fauvel for identifying it with Redtenbacher's A. clavicornis.

P. 489 (genus OCYPUS).

(Sp. 1348) Ocypus atratus.

According to Fauvel this Ocypus is absolutely conspecific with the European O. ater. This may perhaps be the case; but I am not altogether satisfied that it is. At any rate I called attention to its close affinity with that species, whilst mentioning a few small characters in which it appeared to me that it did not quite accord with it; so that entomologists must judge for themselves whether or not they will regard it as a mere geographical phasis of its more northern representative.

P. 489. (Sp. 1350) Ocypus punctatissimus.

Fauvel regards this Lanzarotan and Fuerteventuran Ocypus as identical with the European O. cypreus; and I think it is extremely likely that such may be the case. Indeed I stated as much, both in my 'Canarian Catalogue' and in my 'Coleoptera Atlantidum,'—while, at the same time, pointing out a few trivial characters in which the species seemed to me to differ from its near ally.
P. 492 (genus PHILONTHUS).

(Sp. 1359) Philonthus marcidus.

This Philonthus appears to be conspecific with the European \( P. \) concinnus, Grav., as lately pointed out by M. Fauvel. Its synonymy should consequently be cited thus:

- Staphylinus concinnus, Grav., Col. Micropt. 21 (1802).
- \( P. \) politus?, Brullé [nec Grav.], in W. et B. (Col.) 60 (1835).

P. 493. (Sp. 1360) Philonthus proximus.

As implied in my remarks at page 238 of this volume, the present Philonthus is identical with the European \( P. \) ventralis, Grav.,—a name which must therefore be substituted for that of \( P. \) proximus, Woll. Like most of the Philonthi of these various Atlantic islands, it has probably been introduced from more northern latitudes—occurring sparingly in the Madeiras, Canaries, and Cape Verdes. Its synonymy must therefore be altered thus:

- Staphylinus ventralis, Grav., Col. Micropt. 174 (1802).
- \( P. \) proximus, Woll., Cat. Mad. Col. 189 (1857).
- \( P. \) proximus, id., Cat. Can. Col. 573 (1864).
- \( P. \) proximus, id., Col. Atl. 492 (1865).

P. 495. (Sp. 1364) Philonthus punctipennis.

M. Fauvel has communicated to me several examples of Erichson’s \( P. \) turbidus, which are undoubtedly conspecific with my \( P. \) punctipennis. It would appear, therefore, to be an insect of a wide geographical range; for it is not only found in the Madeiras, Canaries, and Cape Verdes, but Fauvel’s specimens are from Egypt, the Mauritius, the Isle of France, and Assam, whilst it is recorded by Erichson from Madagascar. The following, consequently, must be quoted for its synonymy:

- \( P. \) punctipennis, id., Cat. Can. Col. 575 (1864).
- \( P. \) punctipennis, id., Col. Atl. 495 (1865).

P. 504 (genus SCOPÆUS).

(Sp. 1390) Scopæus trossulus.

A Scopæus which is said by Fauvel to be identical with the Mediterranean \( S. \) sericans, of Mulsant and Rey; and, if this identifica-
tion should prove to be correct, the synonymy will have to stand thus:

—— ——, *Id., Col. Atl.* 504 (1865).

P. 514 (genus **BLEDIUS**).

**(Sp. 1418)** **Bledius januvianus.**

I have already stated, at page 254 of the present volume, that this large *Bledius* (which I captured originally in Lanzarote of the Canarian Group, and subsequently in S. Vicente of the Cape Verdes) has been identified by Fauvel with Erichson's *B. vitulus*—a species recorded from Arabia. In all probability, therefore, it will be found to possess a wide African range. Assuming Fauvel's identification to be correct (for I have not myself had an opportunity of verifying it), the synonymy of the species must be altered as follows:

—— ——, *Id., Col. Atl.* 514 (1865).

P. 522 (genus **HOMALIUM**).

**(Sp. 1440)** **Homalium sculpticolle.**

This species has been identified by Fauvel with the *H. Allardii, Fairm.*, which was captured by M. Allard "dans les fumiers d'une ferme" near Paris, and subsequently "dans une cave" by M. H. Brisout de Barneville. Assuming, therefore, Fauvel's determination to be correct, the synonymy will stand thus:

—— ——, *Id., Col. Atl.* 522 (1865).
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