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Contributors

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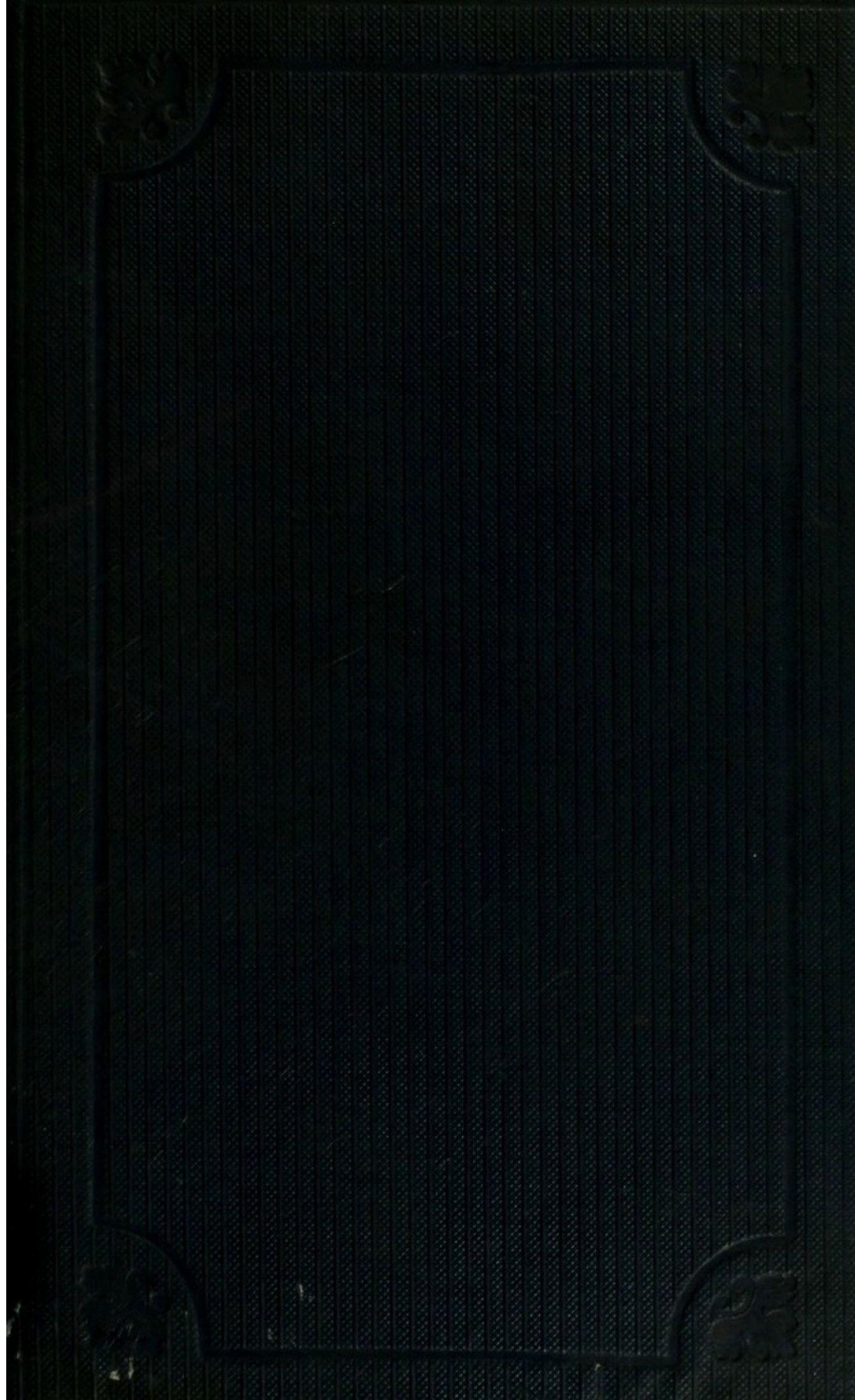
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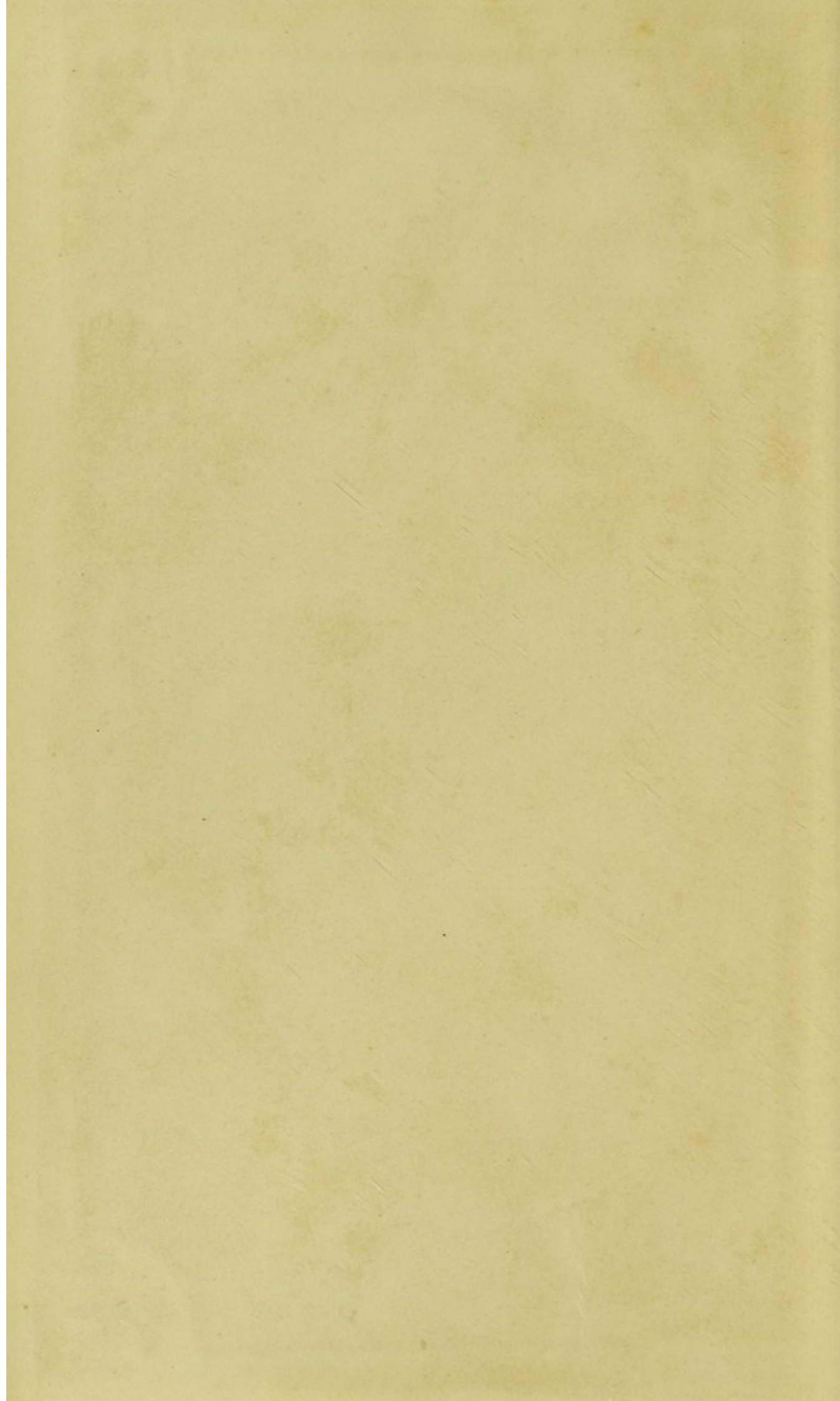


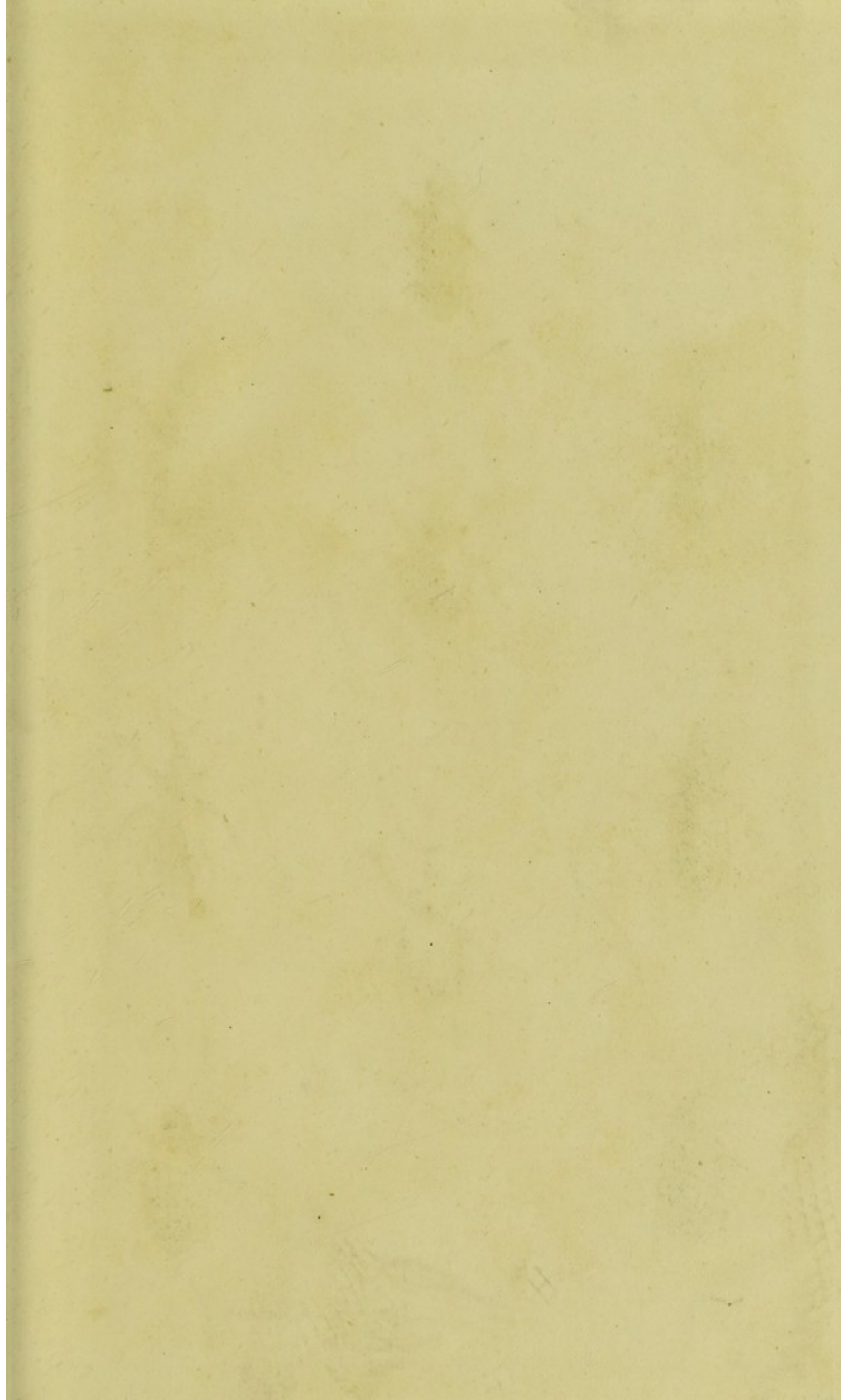
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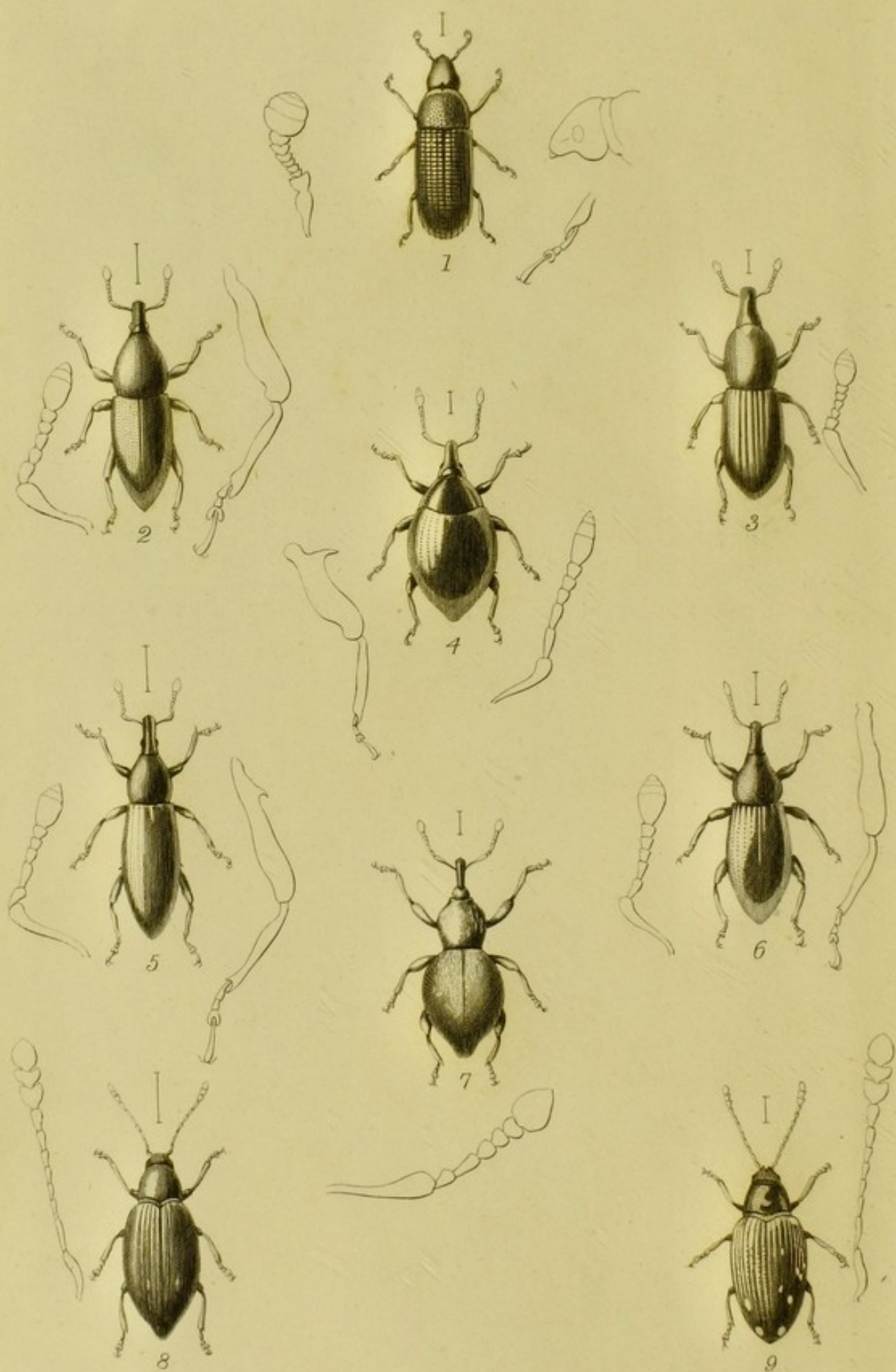
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COLEOPTERA

SANCTÆ-HELENÆ.

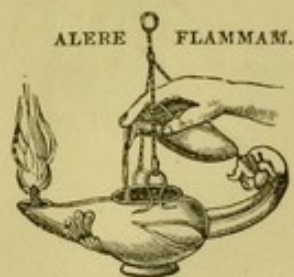
BY

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

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PREFACE.

It is not without some hesitation that I have thought it desirable to publish in a separate volume the result of a six months' inquiry, *in situ*, into the Coleopterous statistics of St. Helena; but the fact of our sojourn in that island having been exceptionally favourable,—apartments having been granted to us, through the kind recommendation of the Earl of Carnarvon to His Excellency the Governor, at Plantation House (the most convenient of spots for visiting the various portions of the great central ridge),—I am sanguine enough to hope that the following account, brief though it be, may embody an approximately complete summary of what still remains of one of the most characteristic and isolated little faunas in the world. That a good deal remains yet to be done I would not wish to deny; for the remarkable segregation of the majority of the species at St. Helena (far surpassing what I have ever witnessed elsewhere) renders it absolutely essential that each separate district should be carefully overhauled before the conclusions subsequently to be arrived at can be looked upon as final, and the shortness of our stay did not permit of our reaching some few localities which were both distant and difficult of access. But the constantly repeated *raids* (for I can find no term more appropriate) which we were in the habit of making

on the more important and profitable regions, particularly those in which the aboriginal vegetation yet survives, encourages me to suspect that we have at any rate gleaned a sufficiency of the *firstfruits* to warrant a safe generalization on the peculiarities of the fauna; and it is with this conviction that I offer the present catalogue,—trusting only that the time will assuredly arrive, and that at no distant epoch, when it will be both increased and *tested* by the researches of future naturalists.

The recent publication by Mr. Melliss of a most praiseworthy endeavour to bring together what had already been accomplished by others on the Natural History of St. Helena, adding to it the result of his own individual labours*, relieves me from the necessity of regarding the present volume as more than a *second* step towards the ultimatum at which we are both of us equally anxious to arrive,—namely a thorough knowledge of the productions (in this especial instance, however, pertaining to the Coleoptera only) of an island which is unusually remote, and which therefore, geographically considered, possesses a surpassing amount of interest; and although he had the kindness to transmit to me, from time to time, for description in the English periodicals, the several species which he himself met with, I have in every instance, by referring to his lately issued work, made it quite plain which of them were due in the first instance to his researches, and which have been added subsequently by our own.

It merely remains for me to express my warmest thanks to those who have lent me a helping hand in arriving at the

* ST. HELENA: a Physical, Historical, and Topographical Description of the Island. By John Charles Melliss, A.I.C.E., F.G.S., F.L.S.—London: L. Reeve & Co. 1875.

results which are embodied in this short memoir,—and first and foremost to my old friend and fellow-collector John Gray, who was the prime instigator of our St.-Helena trip, and whose sojourn with us at Plantation during the first month of our visit was the means of adding so many novelties to our then incipient but fast-increasing list. It was owing to Mr. Gray's devotion to the cause of natural science that I had the opportunity of exploring, in his yachts the 'Miranda' and 'Garland,' now many years ago, the numerous outlying islands of the Canarian and Cape-Verde archipelagos; and although on this particular occasion he had no longer his own vessel in which to convey us, yet a *compagnon de voyage* so true to the cause, and so thoroughly experienced in the ways and means for collecting, could not fail to render his cooperation in the highest degree valuable.

The uniform courtesy which we received from His Excellency the Governor, H. R. Janisch, Esq., during our entire stay at St. Helena, must not remain unnoticed; for it was to his kindness that we owed, in a large measure, the success of our expedition; and the genuine assistance which, as a keen observer himself in the higher departments of physical inquiry, he had it in his power to render us, was never on any single occasion withheld.

Amongst our numerous friends who were ever ready to further the object of our trip, the Rev. H. Whitehead and his son claim more than a passing word of thanks; for without the aid of the latter, at least nine of the species which are cited in the present volume would have been omitted altogether. The accurate knowledge possessed by Mr. Whitehead of the botany of the island, and his general appreciation of all that is new and interesting in the various departments of zoology, marked him out from the first as a

naturalist from whom we might reasonably expect to receive local information of no ordinary kind; whilst to the activity and sharp-sightedness of his son I am indebted for the exploration of several remote districts which I had neither the time nor the physical strength to visit. Indeed the Scrubwood fauna (embracing the species which are attached to that singular and viscous arborescent Composite the fast-disappearing *Aster glutinosus*, Roxb.) may be said to have been almost solely in the hands, hitherto, of Mr. P. Whitehead,—whose exertions on the Barn and elsewhere have brought to light several novelties which would otherwise have escaped my notice; and considering that he has forwarded to me many consignments since our departure from the island, I may fairly venture to hope that a few significant additions to the catalogue may even yet be made through his instrumentality.

Having already had the privilege of placing upon record, so far at least as that was practicable, the Coleopterous insects of the Madeiran, Canarian, and Cape-Verde archipelagos, I can only hope that the St.-Helena list, although necessarily less extensive, will not be found, on the whole, to be less *accurate* than those which I was enabled to compile in connexion with the more northern groups.

INTRODUCTORY REMARKS.

THE extreme isolation of St. Helena—which is nearly 1200 miles from the nearest point of the African continent, 1800 from that of South America, and about 700 from even the small and barren island of Ascension—gives it a degree of importance which it would not otherwise possess; for about the faunas of remote islands cluster, in an especial manner, a variety of problems, which, although they may never be absolutely solved, may yet be brought, by a series of carefully conducted observations, within the sphere of discussion, and be made to throw some additional light, however faint, on the general questions of geographical zoology. From whatever point of view we look at them,—and there are many which at once suggest themselves along the distinct, but ultimately converging, lines of thought,—the statistics of an oceanic rock, far removed from the ordinary effects of immigration and change, and bearing more or less of the impress which was stamped upon it by its aboriginal forms of life, have an interest about them which it is scarcely possible to overrate. How the organisms, as we now see them, came to occupy their present areas of distribution,—to what extent they are or seem to be “related” to those of the nearest mainland,—whether there is evidence for believing that they have changed to any considerable extent, in their outward configuration, from the types of which they may be presumed by some naturalists to be the remote descendants,—or whether there is reason to suspect that the Hand which originally placed them where they are adapted

each separate species to the conditions which it was destined to fulfil, subjecting one and all of them to a law of permanence under which they can never very materially alter,—are but a tithe of the questions which, if not capable of being answered positively, we may at least ventilate and probe, not altogether without profit, in even a small treatise like the present one; for it cannot be too carefully borne in mind that, within the limited sphere where mere speculation (as such) seems likely to have any permanent value, it is to facts, and not to theories, that we must ultimately appeal.

The deep-sea soundings around St. Helena—no bottom having apparently been reached, a mile and a half from the present coast, at a depth of 250 fathoms, whilst only about 60 or 70 fathoms seems to be the average depth within that sublittoral zone—may be considered perhaps to discourage at the outset, when taken in conjunction with the fact of its manifestly volcanic origin, any *à priori* idea that the island as we now view it is but the small remaining fragment of a once widely-extended land. Rather should we be inclined to suspect, from the evidence to which we have access, that the abrupt encircling ledge to which I have just called attention marked, in all probability, the outer limits of the original basaltic mass, as finally built up by successive eruptions, and which has been gradually worn away by the disintegrating action of the elements to its present slightly reduced dimensions. But, whatever be its force we will not be hampered by any such consideration even as this; for my object in these introductory remarks is not to enter into geological problems, with which I am not immediately concerned, but simply to draw such deductions from the Coleopterous data *per se* as appear to me to be most in accordance with the phenomena as absolutely ascertained; and, keeping this steadily therefore in view, I shall proceed by successive approximations so far to analyze the material which has hitherto been brought to light as to make it tell, whenever that is possible, and without any undue colouring of mine, its own tale.

If we cast an eye down the catalogue as given at the close of the present volume, we shall find that the 203* species which are there recorded distribute themselves in the following proportions, under

* Only 202, it will be seen, are indicated by the numbers as given in the catalogue. But this is merely due to the fact that one of the species (the *Cossyphodes Wollastonii*) was sent to me too late for insertion in its proper place in the text; and, as I did not wish to make the numbers of the latter disagree with those of the general list, I thought it better to enter it as "39*."

the great primary sections into which the Coleoptera are usually supposed to be subdivided :—

Rhynchophora	102
Necrophaga	24
Brachelytra	17
Geodephaga	15
Heteromera	12
Priocerata	10
Lamellicornia	7
Pseudotrimera	7
Phytophaga	4
Philhydrida	2
Longicornia	2
Trichopterygia	1
Hydradephaga	0
	<hr/> 203 <hr/>

From which we gather the remarkable fact, not only that the water-beetles are absolutely unrepresented, and that too in an island which affords every condition necessary for their subsistence, and in which the streams and pools must have been far more abundant formerly than now, but that the *Rhynchophora* (which contains the weevils) so far out-balances every other department that it numbers a little more than half of the entire Coleopterous fauna. However, since the organisms of every country are made up largely of ones which have been accidentally naturalized, and which have no real connexion with the *autochthones* of the soil, it follows that, in order to obtain a true estimate of the latter, we must endeavour to eliminate, so far as is possible, those which were manifestly introduced; and, fortunately, to almost any experienced naturalist, who is acquainted with the *modus vivendi* and the respective ranges of the more or less cosmopolitan forms, this *first clearing-out* is seldom difficult. Thus, in the instance before us, out of the 203 species which have been brought to light at St. Helena, there are certainly 57 which we can have *no doubt whatsoever* must originally have been conveyed into the island through various external *media*, and have since established themselves. These 57 are as follows :—

Dactylosternum abdominale, Fab.	Philonthus discoideus, Fab.
Aleochara puberula, Klug.	—— nigritulus, Grav.
Homalota coriaria, Kraatz.	Creophilus maxillosus, Linn.
Philonthus longicornis, Steph.	Lithocharis ochracea, Grav.

<i>Lithocharis debilicornis</i> , Woll.	<i>Corynetes rufipes</i> , Fab.
<i>Oxytelus sculptus</i> , Grav.	<i>Gibbium scotias</i> , Fab.
<i>Trogophlœus corticinus</i> , Grav.	<i>Anobium velatum</i> , Woll.
<i>Carpophilus dimidiatus</i> , Fab.	— <i>paniceum</i> , Linn.
— <i>hemipterus</i> , Linn.	— <i>domesticum</i> , Fourc.
<i>Monotoma spinicollis</i> , Aubé.	<i>Rhizopertha bifoveolata</i> , Woll.
— <i>picipes</i> , Hbst.	— <i>pusilla</i> , Fab.
<i>Trogosita mauritanica</i> , Linn.	<i>Hylurgus ligniperda</i> , Fab.
<i>Læmophlœus carinulatus</i> , Woll.	<i>Phlœophagus æneopiceus</i> , Bohm.
— <i>pusillus</i> , Schön.	<i>Calandra oryzæ</i> , Linn.
<i>Silvanus surinamensis</i> , Linn.	<i>Otiorhynchus sulcatus</i> , Fab.
<i>Cryptophagus badius</i> , St.	<i>Sitona lineatus</i> , Linn.
— <i>affinis</i> , St.	<i>Aræocerus fasciculatus</i> , De G.
<i>Anommatus 12-striatus</i> , Müll.	<i>Bruchus rufobrunneus</i> , Woll.
<i>Corticaria elongata</i> , Gyll.	— <i>advena</i> , Woll.
<i>Latridius nodifer</i> , Westw.	<i>Curtomerus pilicornis</i> , Fab.
— <i>approximatus</i> , Woll.	<i>Coptus bidens</i> , Fab.
<i>Mycetæa hirta</i> , Gyll.	<i>Sericoderus lateralis</i> , Gyll.
<i>Typhæa fumata</i> , Linn.	<i>Orthoperus atomarius</i> , Heer.
<i>Dermestes cadaverinus</i> , Fab.	<i>Alphitobius diaperinus</i> , Kugel.
— <i>vulpinus</i> , Fab.	— <i>piceus</i> , Oliv.
<i>Attagenus gloriosæ</i> , Fab.	<i>Gnathocerus cornutus</i> , Fab.
<i>Saprinus bicolor</i> , Fab.	<i>Tribolium ferrugineum</i> , Fab.
<i>Aphodius granarius</i> , Linn.	<i>Tenebrio obscurus</i> , Fab.
— <i>lividus</i> , Oliv.	

Now I would wish this list to be very carefully scrutinized, because I am satisfied that there is not a single species amongst the whole 57 which has the slightest claim to be regarded as primevally St.-Helenian ; indeed the majority of them are well-nigh cosmopolitan, following in the track of man, and such as figure in the fauna of nearly every civilized country, and we may therefore safely remove them from the general catalogue. Let us consequently do this, and then see whether the relative proportions of the various departments (as represented by the 146 species which remain) are affected to any considerable extent.

<i>Rhynchophora</i>	94
<i>Geodephaga</i>	15
<i>Brachelytra</i>	7
<i>Heteromera</i>	7
<i>Lamellicornia</i>	5
<i>Pseudotrimera</i>	5

	133
Necrophaga	4
Phytophaga	4
Priocerata	3
Trichopterygia	1
Philhydrida	1
Longicornia	0
Hydradephaga	0
	<hr/> 146 <hr/>

Here, then, in this *second approximation* to what we are compelled to regard as representing (at the present time) the aboriginal fauna, the results are even still more pronounced; for whilst the Longicorns have, like the water-beetles, been reduced to zero, the weevils, on the other hand, head the catalogue to an extent even *greater* (relatively) than before,—numbering about two-thirds of the whole Coleopterous population.

There are however 17 species (three of them *Rhynchophora*) which we may be *almost* certain were, in the first instance, brought accidentally into the island,—four indeed (*Cyclonotum dytiscoides*, Fab., *Aspidomorpha miliaris*, Fab., *Epilachna chrysomelina*, Fab., and *Cydonia vicina*, Muls.) possessing but slender claims for having ever been found at St. Helena at all; and, although I have given them in the above enumeration the advantage of the doubt, I cannot but feel that their true right to represent any portion of the *quondam* fauna is infinitesimally small. They are as follows:—

Pristonychus complanatus, Dej.	Tomicus æmulus, Woll.
Cyclonotum dytiscoides, Fab.	Stenoscelis hylastoides, Woll.
Philonthus turbidus, Erich.	Sciobius subnodosus, Woll.
Cossyphodes Wollastonii, West.	Aspidomorpha miliaris, Fab.
Cryptamorpha musæ, Woll.	Chilomenes vicina, Muls.
Tribalus 4-striatus, Woll.	Thea variegata, Fab.
Trox Whiteheadii, Woll.	Epilachna chrysomelina, Fab.
Adoretus versutus, Har.	Zophobas concolor, Woll.
Heteronychus arator, Fab.	

I think, therefore, that we may safely remove these 17 members also of the present fauna, as having no connexion with the *aboriginal* one; and the 129 which are then left, and which there is every reason to suspect are the veritable descendants of the “*autochthones* of the soil,” distribute themselves thus:—

Rhynchophora	91
Geodephaga	14
Heteromera	6
Brachelytra	6
Priocerata	3
Phytophaga	3
Lamellicornia.....	2
Pseudotrimera	2
Trichopterygia	1
Necrophaga	1
Philhydrida ...	0
Longicornia	0
Hydradephaga	0
	<hr/>
	129

Now, although it is undeniable that these 129 species are but a small assortment as compared with the 203 which have been enumerated in the present volume, and which presumably exist (or have lately existed) in the island, yet, if our speculations concerning the *character of the aboriginal fauna* are to be worth the paper on which they are written, it is evident that we *must* remove, first of all, those more or less cosmopolitan organisms which (whether by indirect human agencies or not) have *manifestly* been introduced. For even if any degree of doubt should still attach to a few of these 129 which ultimately remain (and I think that the evidence for each of them is too decisive to admit of much uncertainty), it is nevertheless so small as to be practically inappreciable; and our conclusions from a reduced number which has been well sifted and carefully ascertained are more likely to be reliable than those which we might attempt to deduce from a much greater medley of unsorted, equivocal, and recently naturalized forms. Indeed it has often seemed to me that the arguments of many naturalists on so-called "geographical distribution" have been much invalidated by the fact of these promiscuous (and utterly *unmeaning*) species not having been sufficiently eliminated before their ultimate comments have been given to the world; for organisms, the presence of which in any country is clearly due to fortuitous circumstances of a comparatively recent date, can possess no kind of significance, nor have any claim to be looked upon as "aboriginal;" and I may further add that they can *seldom be confounded* by any experienced naturalist with the "*autochthones* of the soil."

The faunas of remote oceanic islands are never very extensive,—being characterized to a greater or less degree by gaps, or omissions, occasioned by the absence of certain well-known types with which we are elsewhere familiar. St. Helena, as might indeed be anticipated from the remoteness of its position, offers no exception to this rule, but quite the reverse,—whole families and departments, which we are accustomed to regard as well-nigh cosmopolitan, having not so much as a solitary witness; and if we accept the 129 species to which I have just called attention, as shadowing forth (by what is still left) the original beetle population, we shall observe that all the water-loving tribes (whether *Hydradephaga* or *Philhydrida*) and the vast group of Longicorns have not an exponent, whilst even the Lamellicorns and *Necrophaga*, so universally distributed over the world, are *all but* absent. Indeed the section of the weevils is the only one which is well represented; and that, considering the smallness of the area to which it pertains, is *unduly* expressed,—numbering nearly *three-fourths* of the entire Coleopterous fauna!

However, we must approach the subject a little nearer even yet, and see if the numerous members of the *Rhynchophora*, which are *strictly indigenous* (amounting to no less than 91), divulge anything that is remarkable, and supply evidence for legitimate conclusions. Again referring to the catalogue, we shall find that they distribute themselves, under four distinct families, thus:—

Cossonidæ	54
Tanyrhynchidæ	10
Trachyphlœidæ	1
Anthribidæ	26
	<hr/>
	91

Thus, with the exception of a single insignificant little Trachyphlœid and ten members of the *Tanyrhynchidæ* (which in their mere *habits* are scarcely separable from the *Cossonidæ*), the whole of these 91 exponents of the *Rhynchophora* are either Cossonids or Anthribids,—the latter numbering 26 species, and the former 54! Here, then, is a point on which it may be worth while, for a few moments, to dwell. A minute island, which has been almost cleared of its native timber (said to have been once luxuriant), and which presents, except in a few favoured districts in the interior and on the summits (and inaccessible slopes) of the high central ridge, scarcely more than a blackened mass of basaltic rock and hardened

volcanic mud, is nevertheless more richly stocked, even now, *with wood-boring weevils and foliage-loving Anthribids* than probably any other spot of equal area (whether insular or continental) in the world! In England, for example, out of a Coleopterous fauna numbering more than 3000 members, nine only belong to the *Cossonidæ*; whilst at St. Helena (where we will, for the moment, take the *modern* list as more truly representing the present English one), out of 203 exponents of the Coleoptera, 54 (or considerably *more than a quarter*) are included in that particular family!

There have been some writers on the island who have not thought it beneath them to scoff at the old records which tell us, as plainly as words can be made to tell, of forests and rank herbage covering whole tracts of mountain-slopes, and upland plains, which have subsequently been reduced to comparative desolation,—converted gradually by troops of hungry goats and the still more vicious practice of the inhabitants of permitting the indigenous trees to be chopped down ruthlessly for fuel, into a chaos of scoræ; but to my mind no more damaging paraphrase could be suggested on the *dicta* of these amiable critics than the ascertained fact that a mere “cinder-heap” happens *nevertheless* to be more copiously supplied with lignivorous and vegetation-loving types than perhaps any similar-sized area in the world. One author indeed, after throwing discredit on the positive assertions of the late Governor Beatson, thus sarcastically delivers himself:—“It may also occur to an impartial observer that the site once so *prolific* is now little more than bare rock; that there is scarcely sufficient soil on any part of it to nourish or support anything less satisfied on such points than a prickly pear; and the question arises most naturally,—What has become of the soil that such a forest must have had for its roots? *” I wonder it should never have occurred to him that when once the trees had been destroyed, and the long-continued nibbling of the goats had succeeded in annihilating every fresh sapling as it made its appearance, even the *roots* would at last perish; under which circumstances the soil (being no longer held together as before) would be gradually washed away by the violence of the tropical rains,—leaving the faces of the rock to a great extent, and in places sufficiently steep, bare and exposed. Indeed this *binding* power of roots is illustrated to a demonstration, even at the present day, on

* SAINT HELENA; by a Bird of Passage, [p. 55]. London: Houlston & Wright, 1865.

the high central ridge, where almost perpendicular precipices in the most tempestuous and weather-beaten spots are able to retain upon them sufficient soil to nourish a most profuse herbage and perfectly gigantic examples of the various arborescent *Compositæ*. But once cut down the trees (were it possible to get at them, which happily it is not), and turn in the goats for a few generations to nibble every thing to the ground which had the power of germinating, and what would be the result? Simply that even the *roots* would slowly decay and the soil be gradually washed down, leaving abrupt declivities and the denuded faces of basaltic dykes, where only a century before there was (as now) a dense and well-nigh unbroken forest of cabbage-trees and asters. I do not see, therefore, that it evinces any wonderful amount of acumen to disbelieve records, plainly stated and given to us in all good faith, simply because the present aspect of the country has so altered that we cannot understand how they should be true; but, on the contrary, I will further declare that, even had no such records ever existed at all, the redundancy at St. Helena of the wood-infesting and herbage-loving forms of life, added to the extreme scarcity of the Heteromorous ones, would of itself have suggested to my mind *an island of wood and verdure* in terms so unequivocal that it is quite impossible to mistake them.

It may, however, be urged that the exponents of the *Rhynchophora* are *everywhere* phytophagous in their modes of life, and point to the presence of herbage (in some shape or other), but not *more* so at St. Helena than in other countries; to which I would reply that a perfectly overwhelming majority of the St.-Helenian *Rhynchophora* are *over and above* what may be called mere attendants on vegetation; they are essentially *wood-borers*. Comparatively few of the *Cossonidæ* ever attach themselves to herbaceous plants; and although a certain number occur within the rotten stems of the larger ferns and the pithy branches of low-growing shrubs, by far the greater mass reside beneath the bark of trees, requiring solid timber for their subsistence; and we may safely assert that no country which is so anomalously crowded as St. Helena is with Cossonids *could* be (or could have been) otherwise, in the main, than *a land of wood*. But, apart from this consideration, even the ordinary herbage-loving weevils (which the St.-Helenian *Rhynchophora* are *not*), when developed *to an excess*, would imply at any rate a corresponding redundancy of vegetation to nourish them; and as this cannot be

said to have any existence now in the island, a totally different state of things from what we at present recognize is, *even from this lower* (and less accurate) *point of view*, imperatively demanded. But the complete *overplus* of the *Rhynchophora*, in conjunction with the fact that an absolutely astounding proportion of them are wood-borers, form, when taken together, the basis for an argument which is, to my mind at least, irresistible*.

Perhaps a word or two may be said, in this particular place, about the Anthribids, which are so characteristic of St. Helena, and which constitute so important an item (in fact the *most* important next to the *Cossonidæ*) in the Coleopterous fauna. Although probably lignivorous in their earlier stages, the *Anthribidæ* cannot be defined as, in any sense, wood-borers. They occur essentially upon *foliage*, or adhering to dead trunks and sticks, to which their rather broadly expanded feet give them a considerable power of clinging. But it so happens that nearly the whole of them at St. Helena (and they number no less than 26 species, indeed almost certainly more) are attached either to the numerous arborescent *Compositæ* or else to the tree ferns; for if a few, which are more plastic in their nature, have been able, like some of the *Cossonidæ*, to adapt themselves, since the complete destruction in certain districts of the indigenous timber, to other trees, it is quite manifest that they are normally attendant on the strictly *endemic vegetation*. So that while the *Cossonids* tell distinctly of a more or less wooded land (their perfectly prodigious development implying, in all probability, a *very* wooded one), the *Anthribids* take up the story, and show by their extraordinary numbers and variety of structure how that they occupied the place of the *Phytophaga* (a section which is itself but feebly expressed) amongst the *native foliage*—whether of trees or *Cryptogams*. And we might therefore picture St. Helena, in the remote past, as a densely-wooded island, in which the *Cossonids* and *Anthribids* did the work of destruction amongst the tree ferns and *Compositæ*, on a gigantic scale, unaided by the Longicorn tribes—but where the streams and pools, far more copious than now, had no water-loving forms to tenant them, and where nearly every other

* I would wish it to be observed that in the above remarks I have even understated the case rather than otherwise; for the ten members of the *Tanyrhynchidæ* have precisely the same *lignivorous habits* as the *Cossonids*; so that every truly aboriginal exponent of the St.-Helenian *Rhynchophora*, with the exception of the little *Trachyphlæosoma setosum*, tells the same tale,—that of a once wooded land.

primary division of the Coleoptera, except perhaps the *Geodephaga* (which had the great *Haplothorax* as its most gigantic exponent, and a group of very anomalous *Bembidia* on the damp and reeking summits of the central ridge), was but faintly shadowed forth. A few *Heteromera* indeed inhabited the drier and more barren districts ; but we have no evidence of the multitude of familiar types which are more or less present in nearly every continental land.

Considering how greatly the island has deteriorated since the well-nigh complete destruction of its native trees, there can be little doubt that many an aboriginal link of the Coleopterous chain, which was not able to adapt itself to the altered circumstances of the country, must have perished ; and it will probably therefore be said that the above analysis does not convey a true idea of the primeval organisms. But, as regards the question of extinction or non-extinction, I would wish to observe that all the departments would have an equal chance of suffering alike, and that we have no right therefore to argue from the fact of *one* of them being still largely represented that it did not take its share in the general catastrophe which overwhelmed the rest. Indeed in this particular instance the presumption is altogether the other way ; for seeing that it was by the wholesale rooting-out of the indigenous *vegetation* that the local influences were altered for the worse, it would certainly seem to follow that the *phytophagous* forms are the ones which would feel the consequences most severely ; whereas they are the very types which are now present to an absolute excess. My own belief is that they *did* suffer, and, beyond all doubt, most of all, and that their exaggerated numbers even now would simply imply that there was a still greater redundancy of them aboriginally, and that the further we go back into the past the stronger would be our case as regards the unusual dominance of those particular aspects of Coleopterous life. Indeed, when we bear in mind that the whole of them would seem to have been attached, in the first instance, to the endemic trees and shrubs, it is impossible to resist the conviction that the total disappearance of the native ebony (*Melhania melanodendron*, Ait.) and the *all but* annihilation of the redwood (*Melhania erythroxyton*, Ait.), the *Psiadia rotundifolia*, Hk. f., and the island boxwood (*Mellissia begoniæfolia*, Hk. f.) must have resulted in the wiping-out of many a lignivorous organism which was once abundant ; whilst the fast-disappearing asters and gumwoods, around which a whole troupe of Cossonids may be said to cluster, tell a tale of what a few more generations may accomplish,—

unless the inhabitants should become sufficiently alive, even yet, to their own interests (which, however, I can scarcely venture to anticipate) to put a stop to the pernicious practice of destruction which has already reduced a considerable portion of the island to a well-nigh hopeless state of arid and chaotic sterility*.

If now we turn from the *general character* of the aboriginal fauna of St. Helena to the consideration of its (so-called) "origin" and the questions attendant on geographical distribution, much greater difficulties present themselves, and the whole subject seems to be shrouded in mystery. Were I content to take the 203 members of the catalogue, as given at the close of this volume, and simply to calculate what proportion of them have been cited from Southern Africa, and what from the more northern archipelagos of the Atlantic, nothing would be easier than to tabulate the results, and, indeed, to make them support any theory on the subject that I might wish to favour. But then they would be absolutely worthless; added to which, I have no theory, *a priori*, to uphold. My convictions have already been urged that the well-nigh cosmopolitan forms which are

* There is just one point on which I may here add a few words. I have more than once been told, by residents in the island, that the aboriginal trees with which St. Helena was more or less clothed at the period of its discovery were of so "useless a kind" that there was no reason why they should be preserved. But, whilst demurring to this wholesale argument (for the native ebony and redwood supplied timber of no ordinary character, and even the gumwood was found to be of service in other ways), I would simply answer that it is not so much for the sake of the trees themselves that I am pleading as for the *conditions of the country* which their presence in large masses could not fail to imply; for where forests exist (and no forests, in any region, are equal to those of nature's own planting), there *also* exists, inevitably, moisture; and without moisture, and well-filled streams, what are the chances of successful cultivation? Nor can it be urged that the tracts were required for the purposes of agriculture; for I have already shown how a perfect jungle may flourish on an inaccessible mountain-slope and the well-nigh perpendicular edges of ravines which never could be utilized by human industry, but where a copious supply of trees and under-verdure, well protected from the goats and other nuisances, would ensure that humidity which is so essential to the well-being of any country, more particularly a tropical one. The light and friable soil which a mass of herbage will slowly but steadily accumulate in the course of a few centuries, and which becomes thicker and more persistent as time goes on, would be held together, *in situ*, as above mentioned, so long as the vegetation is left untouched; but when the latter has been so far tampered with that the roots and fibres perish, and there is no foliage left to break the violence of the tropical rains when falling upon the ground, the soil will be gradually washed down into the river-beds below and be carried bodily away. And as for the mere *imported* trees supplying, in any sense whatever, the place of the aboriginal ones, I will leave it to the admirers of "Port-Jackson willows" and diseased stunted pinasters (both of which act as a rank poison to whatever might attempt to germinate beneath them) to judge for themselves.

liable to constant introduction almost everywhere through indirect human agencies, and which have become dispersed (in consequence) over a large area of the civilized world, have no claim to constitute even an element in the great problems of geographical distribution, for they are simply *meaningless*; and until these, therefore, have been carefully expunged, I cannot but think that it would be a mere waste of labour to work out conclusions which would not only lack value but be even misleading. Such species as those to which I now allude figure in the faunas of nearly every civilized country which has been properly investigated; and therefore to build up high-wrought theories of "geographical distribution" on account of their presence, seems to me to border closely on the ridiculous. They are transmitted, and retransmitted, across the ocean, along with various articles of commerce and merchandise, over and over again, following in the track of man; and where consignments of plants and trees have, as at St. Helena, to be taken likewise into account, the *most* significant perhaps of *all* the methods of accidental dissemination must be conscientiously allowed for. I feel satisfied, therefore, that such organisms should be removed boldly and without compromise, if we are to arrive at an accurate judgment concerning the character of a primeval fauna, and to attempt after-deductions on the still more doubtful question of its "origin." But, unfortunately, in the case of St. Helena, if we do this, it appears to me that we cannot stop short of the *two eliminations* to which I have already subjected the list, and which reduce the latter to the 129 species to which attention has been called at p. xii of the present "Introductory Remarks."

Here, then, if the above observations be assented to, is our first difficulty; for the whole of the 129 species to which I have just alluded are, with a single exception (the *Chilomenes lunata*, Fab.), absolutely *peculiar* to St. Helena, so that the question of geographical distribution would seem to be well-nigh "nipped in the bud." Moreover, from all that I know of the South-African Coleoptera (and I have inspected a considerable amount of material which has been sent from the Cape Colony, to say nothing of a most interesting collection of nearly 400 species which was amassed there by Mr. Gray since his departure from us in St. Helena, and a fair sample, which has lately been placed in my hands by B. Gregory, Esq., of H.M.S. 'Spiteful,' even from the Congo country and Angola), it has almost nothing in common with these 129 aboriginal St.-Helenians, which

stand out singly, as it were, and alone, related more or less *inter se*, but unrelated, for the most part, to any recognized continental forms. It is true that two of the most significant of the Rhynchophorous types—namely *Nesiotes* (of the *Tanyrhynchidæ*), and *Acarodes* (of the *Anthribidæ*)—are allied conspicuously to *Echinosoma* and *Xenorchestes* of the Madeiran archipelago; but if any more successful generalizer than myself can develop much from these points of quasi-contact, he is quite welcome to the result. So far as I can understand the evidence before me, any unprejudiced inquiry into the “origin” (as usually understood by that term) of these St.-Helenian Coleoptera, does not elicit, in reply, so much as even an echo; for not only are they *endemic* (in the strictest sense of the word), but an overwhelming majority of them are attached (or were so originally) to trees and shrubs which would seem to exist nowhere in the world except on this remote rock, 1200 miles from the nearest point of the African coast, surrounded by an all but unfathomable ocean, and which has every appearance of having been piled-up by successive eruptions into a basaltic mass at no period *very* considerably larger than that which we now see. “Whence, then, came its fauna and flora” are enigmas which I cannot presume to answer on any known principles of derivation and descent. To a mind which, like my own, can accept the doctrine of creative acts as not necessarily “unphilosophical,” the mysteries, however great, become at least conceivable; but those which are not able to do this may perhaps succeed in elaborating some special theory of their own, which, even if it does not satisfy all the requirements of the problem, may at least prove convincing to themselves. The St.-Helena fauna cannot, I think, be said to have had much light yet thrown upon it as regards its actual “origin” (except perhaps in so far as my individual opinions on the subject may be accepted by others who are predisposed to receive them); but its *primitive* (or at all events remote) *state* is another matter, and appears to be capable of some real elucidation from the facts to which we have access.

As regards the earliest diagnoses of the St.-Helena Coleoptera, the first indication of any thing from the island was in 1775, when six species, from the collection of the late Sir Joseph Banks and supposed to be St.-Helenian, were described in the ‘*Systema Entomologiæ*’ by Fabricius. I may here repeat, however, what I have already urged under each of these species separately, that I have the gravest doubts

as to whether they ever were received from St. Helena at all. Indeed one of them, the South-European *Cryptocephalus* (or *Macrolenes*) *ruficollis*, was so glaringly confused as regards its *habitat* even by Fabricius himself, that I have rejected it altogether from the *text* of this catalogue as having been cited on evidence which was untrustworthy and insufficient; and perhaps it would have been more consistent had I omitted, in like manner, the *Sphæridium* (i. e. *Cyclonotum*) *dytiscoides* (which was probably taken at the Cape of Good Hope), the (East-Indian) *Cassida* (i. e. *Aspidomorpha*) *miliaris*, and the (Mediterranean) *Coccinella* (i. e. *Epilachna*) *chrysomelina*. Still, as there was at any rate *something* to be said for each of these species, I have given them the advantage of the doubt. The two other members of this equivocal little lot from the Banksian cabinet are the cosmopolitan *Dermestes cadaverinus* (which I have admitted, on the principle that it is one of those forms which might be found almost anywhere), and the *Chilomenes lunata*, which is the universal ladybird of the island. Still, with respect to even these, I would wish to observe that, since the latter possesses a wide geographical range, occurring *inter alia* from Senegal to the most southern point of Africa, it is far from unlikely that *they also* may in reality have been obtained elsewhere, and that so the *whole six* of this Fabrician batch were incorrectly quoted as to the country from whence they had come. It is more natural, however, to believe that at any rate *some* of them were truly taken at St. Helena; and certainly the most probable ones to have been found there are the common *Chilomenes lunata*, and the *Dermestes cadaverinus*, liable as it is to importation throughout the civilized world, and which has established itself in vast numbers at Ascension.

The next publication, so far as I am aware, of any thing St.-Helenian was in 1836, when Chevrolat enunciated the locally-important genus *Microxylobius*, in the first volume of the 'Transactions of the Entomological Society of London' (p. 98), from the then (and *still*) unique little Cossonid, well figured by Westwood, to which he gave the name of *M. Westwoodii*.

In 1838 the Rev. F. W. Hope, in the second volume of the Entomological Society's 'Transactions,' described a *Calosoma*, which had been captured in the island by Mr. Darwin, under the title of *C. helencæ*. This is the universal *Calosoma* of St. Helena,—an æneous state of which (taken by the late Mr. Bewicke) I inadvertently enunciated in 1861, under the name of *C. haligena*, as a separate species.

In 1841 that large and singular Carabid the *Haplothorax Burchellii*, which had been discovered by the African traveller Dr. Burchell, was published by Mr. Waterhouse in the third volume (p. 207) of the 'Transactions of the Entomological Society.'

In 1853 the previously-enunciated *Scarabæus* (i. e. *Heteronychus*) *arator*, of Fabricius, which abounds at the Cape of Good Hope, and which probably had been introduced into the island from thence, perhaps along with cattle, was redescribed by Blanchard as the *H. Sanctæ-Helenæ* (and therefore first placed on record as St.-Helenian), in the entomological portion of Dumont d'Urville's 'Voyage au Pôle Sud sur les Corvettes l'Astrolabe et la Zélée' (iv. 105, pl. 7. f. 6).

In 1859 Candèze, in the second volume of his 'Mon. Elat.' (p. 409), published one of the two St.-Helenian Elaterids, as a member of Leconte's genus *Anchastus*, under the title of *A. atlanticus*; and in the same year (1859) Boheman defined (Res. Eugen. 141) one of the largest, but most abundant, of the indigenous Cossonids, under the name of *Acanthomerus armatus*—a species which was redescribed by myself, three years afterwards, as the *Microxylobius Chevrolatii*.

In 1861 nine new species, which had been detected in the island during the previous year by the late Mr. Bewicke of Madeira, were characterized (and others, already known, enumerated) by myself, in the first volume (pp. 186 *et seq.*) of the 'Journal of Entomology.' These nine additions to the then meagre catalogue were as follows:—*Microxylobius lucifugus* and *lacertosus*, *Acanthomerus conicollis* and *terebrans*, *Nesiotes squamosus*, *Notioxenus Bewickii* and *rufopictus*, *Longitarsus helenæ*, and *Opatrum hadroides*. And, apart from these, Mr. Bewicke met with the widely-spread *Pristonychus complanatus*, Dej., which was consequently first introduced by him into the St.-Helena fauna.

In 1869 and 1871 thirty-four novelties were described by myself in the 'Annals of Natural History,' from material which had been collected by Mr. Melliss, and which he had kindly intrusted to me for publication. The consignments which contained these numerous additions to the list (besides some of the species which had already been placed upon record, and thirty-nine others which were known elsewhere but had not before been observed in the island) were, as I need scarcely remark, the largest and most important batches which had ever been transmitted from St. Helena; and, when taken in conjunction with the assurance of Mr. G. R. Crotch in 1872 that he

possessed examples of the African *Chilomenes vicina*, Muls., which were unquestionably St.-Helenian, it enabled me to compile a catalogue of 96 species, as the first instalment of what I had every reason to hope would prove eventually to be a tolerably correct Coleopterous fauna of the island. The 34 *novelties* with which Mr. Melliss was thus enabled to enrich the list are as follows—

Bembidium Mellissii,	Pseudomesoxenus subcæcus,
Xantholinus morio,	Nesiotes horridus,
Oxytelus alutaceifrons,	—— asperatus,
—— nitidifrons,	Trachyphloeosoma setosum,
Cryptophagus gracilipes,	Sciobius subnodosus,
Tribalus 4-striatus,	Notioxenus alutaceus,
Mellissius eudoxus,	—— dimidiatus,
—— adumbratus,	—— ferrugineus,
Anobium confertum,	Homœodera pygmæa,
Tomicus æmulus,	—— rotundipennis,
Microxylobius dimidiatus,	—— alutaceicollis,
—— vestitus,	—— coriacea,
Acanthomerus monilicornis,	Bruchus rufobrunneus,
—— debilis,	—— advena,
—— angustus,	Longitarsus Mellissii,
—— obliteratus,	Zophobas concolor,
Lamprochrus cossonoides,	Mordella Mellissiana;

whilst the 39 due to his researches, which were well known, but which had not before been registered as St.-Helenian, are these—

Dactylosternum abdominale, Fab.	Typhæa fumata, Linn.
Homalota coriaria, Kraatz.	Dermestes vulpinus, Fab.
Creophilus maxillosus, Linn.	Attagenus gloriosæ, Fab.
Anobium velatum, Woll.	Saprinus bicolor, Fab.
—— paniceum, Linn.	Aphodius lividus, Oliv.
—— domesticum, Fourcr.	Adoretus versutus, Har.
Philonthus longicornis, Steph.	Corynetes rufipes, Fab.
Carpophilus hemipterus, Linn.	Gibbium scotias, Fab.
—— dimidiatus, Fab.	Rhizopertha bifoveolata, Woll.
Trogosita mauritanica, Linn.	—— pusilla, Fab.
Læmophlœus pusillus, Schön.	Hylurgus ligniperda, Fab.
Silvanus surinamensis, Linn.	Stenoscelis hylastoides, Woll.
Cryptamorphus musæ, Woll.	Calandra oryzæ, Linn.
Cryptophagus badius, St.	Otiorhynchus sulcatus, Fab.
—— affinis, St.	Aræocerus fasciculatus, De G.
Mycetæa hirta, Gyll.	Curtomerus pilicornis, Steph.

Coptops bidens, Fab.	Gnathocerus cornutus, Fab.
Thea variegata, Fab.	Tribolium ferrugineum, Fab.
Alphitobius diaperinus, Kugel.	Tenebrio obscurus, Fab.
— piceus, Oliv.	

The above statistics of the Coleopterous fauna of St. Helena I believe to embody what was exactly true up to the date of our arrival, on the 4th of September 1875. Having had some experience in the extreme poverty of oceanic islands, particularly those which are small and unusually remote, I did not anticipate even at first that we should more than perhaps *double* the number of the species which were already placed on record; yet, considering how large a proportion of the 96 which had then been ascertained to occur were more or less cosmopolitan ones, introduced either through the medium of commerce or else along with consignments of plants, I undoubtedly felt that so isolated and curious a flora as that of St. Helena, although rapidly becoming extinct, ought certainly to have, even yet, a sufficient train of Coleopterous attendants to enable us to extend the catalogue to at least 200 members. And, moreover, I had published my conviction, over and over again, that the principal groups which were destined to figure in the fauna, and that too (in all probability) to an anomalous extent, were the Cossonideous ones around *Microxylobius* and the Anthribideous ones which are embraced in my two genera *Notioxenus* and *Homæodera*. How far these predictions have been verified a single glance at the list as it now stands will show; for whilst the entire species have been increased from 96 to 203, the Cossonids have risen from 15 to 56, and the Anthribids from 10 to 27. And yet, in spite of this, I do not believe that we have even now by any means exhausted those particular types of Coleopterous life, but that future explorations will tend still to augment them—if not considerably, at any rate to an appreciable extent; for the extravagance of the external contour of some of them speaks (at all events to my mind) of links, either present or past, which are *to a certain extent* intermediate,—some few of which can scarcely fail to linger on, in various distant spots, more or less difficult of access, which our six months' sojourn in the island did not suffice for us to investigate. Indeed, although by far the most extensively represented, the arborescent *Compositæ* are not the only trees which have a fauna of their own; there is that of the tree ferns and of the *Diplazium*, which (although restricted) seems to be of surpassing interest, and even that of the Solanaceous *Melissia begoniæfolia* (or native “box-

wood"), which, however small, is by no means to be despised. Then, the *Frankenia portulacæfolia*—a peculiar and wiry little shrub which bears the local appellation of "the St.-Helena tea," and which still exists, I believe, on Sandy-Bay Barn—has not been so much as glanced at; whilst there is every reason to suspect that the island "ebony" and "redwood" must have nourished many a lignivorous and foliage-loving parasite which, since the unfortunate annihilation of those interesting members of the vegetable kingdom, has been wholly exterminated,—numbered now amongst the organisms of the past. Whether the unique but insignificant *Microxylobius Westwoodii*, which eluded our researches altogether, belongs in reality to the list of recently extinguished forms, is a problem which has yet to be solved.

I may just add, that in the catalogue which I have given at the end of this volume the names of those species which I have every reason to suspect may have belonged to the aboriginal fauna of the island are printed in *italics*.

INTERVIEW WITH MR. J. H. BROWN

Q. Now, Mr. Brown, you are a resident of the city of New York, is that correct?

A. Yes, sir.

Q. And you are a member of the New York State Bar Association, is that correct?

A. Yes, sir.

Q. Now, you have been practicing law in New York for some time, is that correct?

A. Yes, sir.

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A. Yes, sir.

COLEOPTERA SANCTÆ-HELENÆ.

Sectio 1. GEODEPHAGA.

Fam. 1. CARABIDÆ.

Genus 1. HAPLOTHORAX.

Waterhouse, *Trans. Ent. Soc. Lond.* iii. 207 [script. *Aplothorax*] (1841).

1. *Haplothorax Burchellii*.

H. ♂ ovato-elongatus, ater, nitidus; capite prothoraceque elongatis et subtilissime inæqualiter punctulatis, hōc ante medium facile rotundato, postice paulum angustiore, angulis posticis obtusis; elytris valde elongato-ovatis (antice gradatim conspicue angustioribus), depressiusculis, pone scutellum transversim impressis, suturâ (præsertim pone medium) subcarinulato-elevatâ, dense punctato- (aut subcrenato-) striatis, interstitiis parum elevatis et leviter transversim imbricatis; antennis pedibusque valde elongatis, illarum articulis ulterioribus fusciscentioribus ac magis pubescentibus; tibiis posterioribus obsolete subflexuosis, intermediis versus apicem extus et intus, sed posticis per partem longiorem intus, fulvo-pilosis; tarsis longissimis, anticis subtus fulvo-setosis.

♀ subopaca; prothorace sensim brevior et magis cordato, sc. antice subito latiore et postice magis angustato, ad latera subargutius filo-marginato, angulis posticis vix minus rotundatis; elytris minutius punctato-striatis sed interstitiis grossius distinctiusque transversim imbricato-rugatis, imbricationibus—*e. g.* in interstitiis 3^{to} et 7^{mo} (angustioribus) et præsertim in 11^{mo} (latiore)—in tubercula sæpe transientibus; tibiis posterioribus rectis et solum in parte brevi externâ (ante angulum externum) intermediarum breviter fulvo-pubescentibus.

Long. corp. lin. 14–15.

Aplothorax Burchellii, *Waterh., l. c.* pl. 12. f. 1 (1841).

Haplothorax Burchellii, *Woll., Ann. Nat. Hist.* iv. 303 (1869).

— —, *Melliss, St. Hel.* 137, pl. 23. f. 1 (1875).

Habitat sub lapidibus in aridis subeditioribus, versus borealem insulæ; rarissimus.

This noble Carabideous insect is the largest of the St.-Helena Coleoptera which has hitherto been detected; and there cannot be the slightest question that it is one of the most strictly aboriginal members of the fauna. At some remote period it may very possibly have been abundant; but at the present time it is, without doubt, of extreme rarity,—appearing, moreover, to be confined to the northern division of the island, about the plains of Longwood and Deadwood (once a dense forest of the fast-disappearing *Commidendron robustum*, DC.), as well as on the arid and weather-beaten slopes of Flagstaff Hill. It is highly probable that our researches for the *Haplothorax* were not pursued at the proper season of the year; but we were totally unable to meet with more than its dead and mutilated remains,—which, however, were far from uncommon beneath large stones, on (and near) the extreme summit of Flagstaff, where the broken fragments have likewise been found by Mr. N. Janisch and Mr. P. Whitehead. Indeed, so numerous occasionally are the portions of this fine Carabid at some distance below the surface of the parched and dusty soil, beneath the detached masses of the scoriaceous basalt, that it has been suggested by Mr. P. Whitehead that they may perhaps have been carried thither by the field-mice, within what certainly *appeared* to be the holes of which they seemed to have mysteriously accumulated; and I cannot but think that this explanation of a problem which might otherwise have been difficult is by no means an unlikely one.

In his original diagnosis of the insect, Mr. Waterhouse did not appear to be aware of the superficial characters which render the sexes of the *H. Burchellii* so dissimilar from each other that at first sight they might well-nigh be mistaken for separate species. Although I possess the mere *remains* only of what I conclude to be the female, yet I think there can be so little doubt that it is (truly) the female sex of the *H. Burchellii*, and not an additional closely-allied member of the same group, that I have had no hesitation in treating it as such; so that, *assuming my conjecture to be a correct one*, I may just mention that that sex differs from the male in being opaque (instead of shining), in having its prothorax a little shorter and more cordate (it being more suddenly widened in front, and therefore more narrowed behind), in its elytra being more minutely punctate-striate (both the punctures and the striæ being very much *finer*), but with their interstices, on the other hand, *more coarsely and roughly imbricated*, and in its four posterior tibiæ being straighter

and (if we except a comparatively short space on the *outer* edge of the intermediate pair at some distance from the angle) apparently free from the fringes of fulvescent setæ which are so conspicuous in the male,—not only on the inside and outside of the middle ones, but on the inside of the hinder pair also. These tibial fringes are curiously suggestive of what is so marked a feature in certain of the Canarian and Madeiran *Calathi*.

Genus 2. CALOSOMA.

Weber, *Obs. Ent.* 20 (1801).

2. *Calosoma helenæ*.

C. nigrum, subopacum; capite prothoraceque irregulariter punctatis, hoc parvo, transverse subquadrato, antice ad latera valde rotundato, angulis posticis productis sed obtusis, utrinque intra angulos posticos late sed profunde impresso; elytris profunde subcrenato-striatis, interstitiis æqualiter subcostato-elevatis ac transversim imbricato-rugatis, punctis magnis plus minus ænescentibus vel cuprescentibus in triplici serie notatis; antennis pedibusque nigris, illarum articulis 7 ulterioribus picescentioribus ac magis pubescentibus.

Mas plerumque vix minor, pedibus subcrassioribus, tibiis posterioribus (præsertim intermediis) conspicue curvatis, tarsis anticis late dilatatis.

Fœm. plerumque vix major, pedibus subgracilioribus, tibiis intermediis leviter curvatis, posticis fere (sed haud omnino) rectis, tarsis anticis simplicibus.

Var. β . *haligena*, Woll. Supra plus minus obscure æneum.
Long. corp. lin. 8–11.

Calosoma Helenæ, Hope, *Trans. Ent. Soc. Lond.* ii. 130 (1838).

— *haligena*, Woll., *Journ. of Ent.* i. 208 (1861).

— —, *Id.*, *Ann. Nat. Hist.* iv. 303 (1869).

— — *et Helenæ*, *Id.*, *ibid.* viii. 412 (1871).

— — *et* —, Melliss, *St. Hel.* 137, 138, pl. 23 .f. 2 (1875).

Habitat in intermediis editioribusque insulæ, a circa 1600' s. m. usque ad summos montes ascendens. Sub lapidibus in graminosis apertis præcipue abundat.

In a paper on St.-Helena Coleoptera, published in 1861, I described this *Calosoma* as new, under the name of "*C. haligena*," seeing that Mr. Hope's diagnosis of his *C. Helenæ* certainly did not altogether quadrate with the example (obtained by the late Mr. Bewicke) which was then before me. And even now the same difficulty exists; for Mr. Hope speaks of the *intermediate* tibiæ alone as in-

curved, and of the elytra as being simply *subrugose*, instead of transversely imbricated in a most coarse and conspicuous manner. Nevertheless, from a careful observation *in situ*, I am so persuaded that there is only a single *Calosoma* in St. Helena—which varies in colour from deep black (the asserted hue of the *C. helenæ*) to a distinctly brassy tinge (which principally obtains in the normal individuals of my *C. haligena*)—that I feel no hesitation whatever in attributing the few points of discrepancy in Mr. Hope's description to a mere want of precision, or inaccuracy; and I have therefore adopted his title for the species, and made my own expressive of the (equally common) ænescent state,—cited as the “var. β . *haligena*.”

The present *Calosoma* is very widely spread over the intermediate and lofty elevations of St. Helena, ascending from about 1600 feet above the sea to nearly the highest part of the central ridge,—in which latter district it is more particularly common. Mr. P. Whitehead, however, meets with the brassy form (or “var. β . *haligena*”) in great profusion at Woodcot; and we also (in conjunction with Mr. Gray) obtained it around Plantation and elsewhere; but I think the darker state is perhaps the more general of the two in the loftier altitudes,—where we used constantly to meet with it crawling rapidly across the road, particularly during the season of haymaking, when the grassy slopes immediately adjoining had been disturbed. In such situations towards Casons, High Peak, and West Lodge it was often quite abundant—far more so than on Stitch's Ridge and in the direction of Diana's Peak.

The *C. helenæ* seems to belong to the same type as the African species *senegalense* and *rugosum*, from the former of which it is nevertheless conspicuously different. From the latter (to which it is far more closely allied) it recedes in being more depressed, and in having its metallic punctures smaller, in its prothorax being more deeply rugose before and behind, and in its legs being less robust. The pile, also, on the underside of its feet is very much softer,—being, in fact, fine hairs instead of stiff bristles. As above implied, it appears to be either black or else of a dull brassy tinge,—the one shading off imperceptibly into the other; and its males have their four posterior tibiæ rather powerfully curved, whilst in the opposite sex the hinder ones are very nearly straight, and even the middle pair but slightly bent inwards.

Genus 3. PRISTONYCHUS.

Dejean, *Spec. des Col.* iii. 43 (1828).3. *Pristonychus complanatus*.

P. subovato-elongatus, valde alatus, niger sed (saltem in elytris) obsolete subcyanescens, fere impunctatus; capite prothoraceque nitidis, illo antice longitudinaliter bifoveolato, hoc subquadrato-cordato (postice angustiore) angulis posticis subrectis prominulis utrinque ad basin late subpunctato-foveolato; elytris depressis, minus nitidis (sc. subtilissime alutaceis), striatis (striis minute et plus minus obsolete crenulatis); antennis pedibusque paulo picescentioribus, illarum articulis 8 ulterioribus dilutioribus ac magis pubescentibus.

Mas tarsi anticis leviter dilatatis.

Long. corp. lin. 6-7.

Pristonychus complanatus, *Dej.*, l. c. 58 (1828).

— alatus, *Woll.*, *Ins. Mad.* 27.

— complanatus, *Id.*, *Col. Atl.* 27 (1865).

Læmosthenes complanatus, *Harold*, *Cat. Col.* 356 (1868).

Pristonychus complanatus, *Woll.*, *Ann. Nat. Hist.* iv. 305 (1869).

— —, *Melliss*, *St. Hel.* 138 (1875).

Habitat in intermediis, inter 1500' et 2000' s. m. præcipue abundans.

Sub lapidibus degit, necnon in fissuris terræ ad latera viarum.

The widely-spread *P. complanatus*, which is particularly characteristic of Mediterranean latitudes (having been recorded from Portugal, Spain, the south of France, Sardinia, Italy, Sicily, Egypt, Barbary, &c., and which is common in the Azorean, Madeiran, and Canarian archipelagos), is extremely abundant in the intermediate districts of St. Helena,—ranging principally from about 1500 to 2000 feet above the sea. Indeed it has all the appearance of being truly indigenous, though there is far more probability in the idea that it was originally introduced and has since become thoroughly naturalized. On the barren slopes below High Knoll (where it was taken in profusion by Mr. Gray under stones) it is very plentiful during the spring and early summer; and we found it equally general around Plantation, particularly in the crevices of the soil, and loose friable rock, left exposed by the cuttings of the roads; and it has been met with in considerable numbers by Mr. P. Whitehead at Woodcot.

Genus 4. BEMBIDIUM.

Latreille, *Hist. Nat.* viii. 221 (1804).

The *Bembidia* of St. Helena are all of them most characteristic and manifestly aboriginal, forming a little geographical assemblage

of the utmost interest. In point of importance, indeed, they are scarcely inferior to the members of even the Cossonideous and Anthribideous groups; and the *modus vivendi* of at least half of them, *within* the damp and rotting stems of the dead tree-ferns on the most elevated ridges of the island, invests them with a significance which it is hardly possible to overrate. We may be pretty sure that there are many still to be discovered; yet the detection already of no less than *twelve* (in every instance most wonderfully distinct *inter se*) will be admitted to be a large number for an area so small, isolated, and remote*.

The St.-Helena *Bembidia* may be said to range themselves under at least *three* types (if not indeed four),—only one of which (and that represented by a single member) is, as regards its habits and structure (immediately apparent in its largely developed wings and eyes), in any respect European. That one is the *B. Mellissii*, the only species out of the twelve which has not remained until now absolutely unnamed,—it having been described by myself in 1869. Yet even the *B. Mellissii* I *believe* to be peculiar to St. Helena; though in its mode of life it is strictly a *mud-loving* species (falling into Dejean's well-known section *Notaphus*), and one which occurs at an *intermediate* rather than at a lofty elevation,—having nothing about it of the fern-infesting tendencies and apterous condition which impart so anomalous a feature to most of the other forms.

The *second* type (which, together with the third, is wingless) is embodied in what at present is a unique example, which was captured by myself from within a putrid tree fern on the highest central ridge, and which has much the *primâ facie* aspect of a minute *Platyderus*,—the strongly defined angles of the prothoracic base and of the humeral region of its elytra, in conjunction with its large prothorax, its pale castaneous hue, and the comparative robustness of its limbs, calling to mind at first sight some of the smaller members of that group.

* In the Azorean archipelago (composed of nine widely scattered islands) only 4 members of the *Bembidia* have hitherto been brought to light. But in the five islands of the much better-explored Madeiran Group, 10 are recorded; and at the Canaries (made up of seven large islands, the highest of which attains an elevation of no less than 12,000 feet) there are 14 (only 7 of which, however, are peculiar); whilst in the Cape Verdes (where the number of the islands is ten) merely 5 have yet been found. From which it would appear that the one little rock of St. Helena is (in proportion to its size) far better stocked with *Bembidia* than any of the more northern clusters,—even the Canaries (with their vast superficial area, and great variety of districts) exceeding it only by two exponents!

The *third* department into which the *Bembidia* of St. Helena separate themselves is not only the most significant geographically, but, as regards the number of its exponents, by far the most extensive; and there can be little doubt that a continued research in the higher regions of the island would yet bring to light others (though perhaps only a few) which we failed to secure. They are all of them apterous, and found on the lofty central ridge characterized by the presence of the tree ferns and of the various arborescent *Compositæ*; and although four (namely the *B. nubigena*, *Grayanum*, *sublimbatum*, and *trechoides*) occur generally under pieces of wood and sodden leaves, the greater number are more evidently at home within the old and decomposed stems of the former,—existing not merely beneath the outer fibre, but far in the interior, so that they can only be obtained by breaking open the trunks and shaking out their loose friable contents. The emphatically fern-infesting ones of these species (which might almost be looked upon as representing a *fourth* type, *Endosomatium*, Woll.) have their structure more conspicuously in accordance with their darkling mode of life,—the enormous eyes, largely developed wings, and thin cursorial legs of the genuine *Bembidia* being replaced by eyes of a reduced pattern (frequently *very* minute), a body totally apterous, and limbs shorter and more fossorial or robust,—the antennæ moreover being moniliform, rather than filiform; and in the last four of this group (*which I would regard as especially typical*) the elytra are provided with a deep sutural stria. But, *taken as a whole*, the essential feature of this third division consists chiefly in the respective bases of the prothorax and elytra (*particularly, however, the former*) being much rounded off, so that any thing like angles, properly so called, is barely traceable.

The following Table will be of service in grouping the twelve species, and in rendering their determination practically easy :—

- A. *Corpus alatum; oculis maximis, prominentibus.*
Mellissii NOTAPHUS, Dej.
AA. *Corpus apterum; oculis minoribus, interdum minutissimis.*
a. *prothorax postice, et (minus) elytra antice, angulata.*
platyderoides APTEROMIMUS, Woll.
aa. *prothorax postice, et (minus) elytra antice, rotundata.*
β. *antennæ filiformes* PSEUDOPHILOCTHUS, Woll.
nubigena,
Grayanum,
sublimbatum,
trechoides.

- $\beta\beta$. antennæ moniliformes ENDOSOMATIUM, Woll.
 γ . elytra æqualiter striata.
 δ . caput magnum, grosse bisulcatum.
 megalops.
 $\delta\delta$. caput minus.
 dicksoniæ.
 $\gamma\gamma$. elytra striâ suturali profundiore impressa.
 ϵ . corpus parvum, plus minus pictum aut suffusum; oculis parvis.
 rufosuffusum,
 gemmulipenne,
 fossor.
 $\epsilon\epsilon$. corpus minutissimum, pallidum; oculis minutissimis.
 evanescens.

A. Corpus alatum; oculis maximis, prominentibus.

(Subgenus *Notaphus*, Dej.)

4. *Bembidium Mellissii*.

B. oblongum, subopacum, alutaceum; capite prothoraceque viridinigris et subæneo tinctis, hoc parvo, brevi, subcordato, utrinque mox intra angulos posticos (acutiusculos, prominulos) profunde impresso (impressione extus costulâ brevi terminatâ); elytris depressiusculis, profunde striato-punctulatis, lurido-testaceis sed fasciis maculisve plurimis longitudinalibus disjunctis nigrescentibus ornatis; antennis pedibusque gracilibus, testaceo-piceis, illis versus apicem femoribusque obscurioribus.

Mas tarsorum anticorum art° basilari valde dilatato, ovali, atque etiam longiusculo.

Long. corp. lin. circa 2.

Bembidium Mellissii, Woll., *Ann. Nat. Hist.* iv. 305 (1869).

———, *Melliss*, *St. Hel.* 138 (1875).

Habitat in humidis lutosiis intermediis; ad Woodcot (circa 1500' s. m.) a Dom. P. Whitehead copiose repertum.

As already stated, the present *Bembidium* is the only one out of the twelve which have hitherto been detected at St. Helena which is strictly on an ordinary European type,—the largeness of its wings and eyes, and its thin cursorial legs, marking it out as a normal member of the group, whilst its manifest affinity with such species as the *varium* and *flammulatum* will assign it at once to that particular section for which Dejean proposed the generic name of *Notaphus*. There is no fear of confounding it with any of the remainder; for, in addition to its structural differences just pointed out, it may immediately be known by its dull brassy-green head and

prothorax, and its lurid testaceous elytra ; the last of which, however, are ornamented with a number of darker patches and subconfluent longitudinal spots. Its striæ are closely and conspicuously punctulated, and there are two very large punctiform impressions on the third interval from the suture. In the angles of the respective bases of its prothorax and elytra being sharply defined it recedes from all the other St.-Helena *Bembidia* except the *B. platyderoides* ; nevertheless its enormous eyes and wings, and wiry cursorial legs, in conjunction with its small short prothorax and almost every other detail, will remove it directly from the latter.

When I enunciated this *Bembidium* in 1869, the only two examples of it which I had seen were taken by Mr. Melliss—though as he had unfortunately preserved no note concerning their exact *habitat*, I think perhaps that some little qualification may be necessary as to his after-remark (*l. c.* p. 138), that it was “ taken from the high land ” (that is to say, if that term be restricted, as I imagine it ought to be, to the lofty central ridge). Although it is one of the few species obtained by Mr. Melliss which I failed myself to meet with personally, yet its frequent capture by Mr. P. Whitehead in the vicinity of Woodcot, at an elevation of some 1500 feet above the sea, added to its total want of affinity with the remarkable forms which exist amongst the tree ferns and cabbage trees on the high backbone of the island, are more than sufficient to satisfy me that it is an insect of a strictly *intermediate* range, and such as might properly be sought for about the Plantation district and elsewhere in that neighbourhood.

AA. *Corpus apterum ; oculis minoribus, interdum minutissimis.*

(Subgenus *Apteromimus*, Woll.)

5. *Bembidium platyderoides*, n. sp.

B. parallelo-oblongum, subnitidum, læte rufo-castaneum ; capite prothoraceque longiusculis, illo semi-ovato oculis minutissimis, hoc magno convexo cordato-quadrato, utrinque intra angulos posticos(subrectos) profunde et late impresso ; elytris subparallelis, basi recte truncatis, ad latera grosse marginatis, profunde subcrenulato-striatis, postice gradatim vix clarioribus ; antennis, palpis, pedibusque robustis, infusate testaceis.

Mas tarsorum anticorum artº basilari valde dilatato, obtriangulari-quadrato.

Long. corp. lin. 2.

Habitat ad montes humidos excelsos, intra truncum *Dicksoniæ arborescentis* putrescentem a meipso semel lectum.

The unique example of the very singular *Bembidium* which I have above enunciated was taken by myself from the interior of the fibrous stem of a rotten tree fern obtained near Diana's Peak on the lofty central ridge; and there can be no doubt that the species which it represents is of the utmost rarity. It is totally distinct from the whole of the ten following members of the genus,—more particularly in its parallel and somewhat elongated outline, and in the respective bases of its prothorax and elytra having their angles (instead of being rounded-off) sharply defined; and it is further remarkable for the largeness of its cordato-quadrate, anteriorly convex prothorax, for the extreme minuteness of its eyes, for the comparative robustness of its limbs, and for its well-nigh concolorous reddish-castaneous hue,—the antennæ and legs, however, being testaceous. Like all the St.-Helena *Bembidia* except the *B. Mellissii*, it is apterous.

(Subgenus *Pseudophilocthus*, Woll.)

6. *Bembidium nubigena*, n. sp.

B. oblongum, nigrum sed obsoletissime subpiceo tinctum; capite prothoraceque subopacis, illo leviter et late bifoveolato, hoc subrotundato, postice obsolete bifoveolato; elytris ovalibus, profunde et grosse striatis, interstitio tertio punctis binis magnis notato, ante apicem fasciâ dentatâ obscurâ lurido-testaceâ ornatis; antennis pedibusque elongatis, illis palpisque rufo-testaceis sed ad apicem obscurioribus, his rufo-piceis.

Mas tarsorum anticorum art^o basilari dilatato.

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

Habitat in excelsioribus centralibus insulæ, sub foliis marcidis truncisque *Dicksoniæ* emortuis humi jacentibus; rarissimum.

This is the largest of the St.-Helena *Bembidia*, and one which there can be little doubt is extremely rare,—the only two examples which I have seen having been taken on the lofty central ridge, on the ascent of the peak known as Actæon. They were found beneath the damp and rotten stems of tree ferns, though whether they were in any way connected with those particular plants (like so many of the other species) I have no means of ascertaining.

Apart from its rather large size and oblong outline, the *B. nubigena* may be recognized by its black surface (which has, however, an obsolete picescent tinge),—the ante-apical region of the elytra, alone, being ornamented with an obscure brownish-testaceous dentate, or zigzag, fascia. Its prothorax is much rounded, and has a *very* indistinct fovea on either side behind; and its elytra (which are rather convex) are very deeply and coarsely striated (the striæ being broad, but simple); and there are two large and conspicuous punctures on the third interval from the suture.

7. *Bembidium Grayanum*, n. sp.

B. oblongo-ellipticum, nitidum, nigrum; capite profunde bifoveolato; prothorace subrotundato, postice gradatim rotundate angustulo et obsolete bifoveolato; elytris obovatis (sc. antice rotundate latiusculis, postice subattenuatis), profunde striatis, interstitio tertio punctis binis parvis indistinctis notato, maculis parvis angustis longitudinalibus (extus ante apicem confluyente majoribus, necnon apicem ipsum omnino tegentibus) lurido-testaceis ornatis; antennis pedibusque elongatis, gracilibus, illis palpisque rufo-testaceis sed ad apicem obscurioribus, his rufo-piceis, tarsis (gracillimis) dilutioribus.

Mas tarsorum anticorum art^o basilari dilatato.

Long. corp. lin. 2–2½.

Habitat in locis similibus ac præcedens, regiones *Dicksoniæ* et *Compositarum* arborescentium humidæ excelsas colens.

Obs.—Species in honorem amici John Gray, qui in ins. Sanctæ-Helenæ unâ cum meipso Coleoptera diligentissime collegit, ob gratias mihi oblatas dicata.

Although by no means common, this is perhaps the most general of the St.-Helena *Bembidia*,—occurring on the high central ridge (about Diana's Peak and Actæon), beneath damp pieces of wood and sodden leaves; and I have much pleasure in naming it after my worthy friend and fellow-worker, John Gray, by whom indeed it was originally detected, and whose careful researches amongst the Coleoptera during the first month of our sojourn in the island added so many species to our then incipient, but rapidly increasing list.

Although the largest of the St.-Helena *Bembidia* with the exception of the *B. nubigena*, the *B. Grayanum* is nevertheless very much smaller than that species; and, although equally black as regards its ground-colour, its elytra are more or less ornamented with a

number of longitudinal lurid-testaceous spots,—which are generally subconfluent towards the outer edge, particularly (so as to shape out two larger patches) at a little distance behind the apex (the apex itself being *wholly* testaceous). Its forehead is more distinctly bi-foveolated than in either the preceding species or the following one; its prothorax is *very* much rounded off behind; its elytra, which are obovate (or somewhat widened in front and subattenuated posteriorly), are deeply striate, neither the striæ, however, nor the two impressions on the third interval being quite so coarse as in the *B. nubigena*; its limbs, especially the antennæ and feet, are long and slender; and its whole surface is glossy and shining.

8. *Bembidium sublimbatum*, n. sp.

B. ovali-oblongum, subnitidum, nigrum sed sæpius obsoletissime subvirescenti tinctum; capite fere integro (aut obsoletissime bi-foveolato); prothorace regulariter rotundato-ovali, convexo, postice fere integro; elytris ovalibus, leviter striatis (striis versus latera etiam subevanescentibus), interstitio tertio punctis binis magnis notato, in limbo (præsertim ad humeros) subrufescenti-dilutioribus necnon utrinque ante apicem maculâ obscurâ subrotundatâ laterali lurido-testaceâ ornatis; antennis pedibusque gracilibus, illis (art^o basilari rufo-testaceo excepto) palpisque piceo-fuscis, his rufo-piceis.

Mas tarsorum anticorum art^o basilari dilatato.

Long. corp. lin. circa 2.

Habitat locos editiores versus occidentalem insulæ; ad rupes præruptas excelsas mox supra "West Lodge," sub foliis lignoque antiquo, inter arbusculas *Asteris gummiferi*, Februario ineunte, a meipso captum.

The only spot in which I have met with this extremely rare *Bembidium* is towards the *western* extremity of the great central ridge, immediately above the house known as West Lodge,—where, early in February, I took it, on two or three occasions, at the very edge of the tremendous precipice which overlooks the Sandy-Bay crater. It was found beneath damp wood, leaves, and sticks, amongst shrubs of the *Aster gummiferus* and common gorse; and, although it may perhaps be more plentiful on the perfectly inaccessible *Aster*-clothed slopes below (extending from thence to High Peak), my utmost endeavours enabled me to secure only eight or nine specimens; though as both sexes are well represented, this is more than sufficient for all practical purposes.

In its general outline and dark hue the *B. sublimbatum* has

somewhat the *primâ facie* appearance of what we might suppose to be a very dwarfed state of the *B. nubigena*; nevertheless, apart from its being very considerably smaller and more shining, its limbs are relatively shorter and thinner; its head and prothorax (which are still less bifoveolated, being in fact almost quite simple or entire, and the latter of which is appreciably more oval) have frequently a faint greenish tinge; and its elytra are less deeply striate,—the *outer* striæ indeed being even subevanescent. Moreover the obscure ornamentation of its elytra is totally different; for (in lieu of the single, dentate, subapical fascia of that species) their external edge, or limbus, is, *particularly at the shoulders*, suffused with a reddish, or reddish-testaceous, hue; and there is also an obscure, somewhat rounded, dusky-yellow, isolated, sublateral patch on either side immediately behind the apex.

9. *Bembidium trechoides*, n. sp.

B. ovali-oblongum, nitidissimum, aut nigrum aut picescens; capite parvulo, distincte bifoveolato, oculis parvis; prothorace subrotundato, postice breviter bifoveolato necnon in medio submarginato-truncato; elytris ovalibus, striatis (striis versus latera levioribus ac interdum obsolete subpunctulatis), interstitio tertio punctis binis parvis notato, ad humeros maculâ indistinctâ (sæpe omnino obsoletâ) necnon ante apicem alterâ majore laterali, lurido-testaceis, ornatis; antennis pedibusque gracilibus, illis (art° basilari rufotestaceo excepto) palpisque piceo-fuscis, his piceo-testaceis.

Mas tarsorum anticorum art° basilari leviter dilatato.

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

Habitat humidus, inter *Compositas* arborescentes ac *Dicksoniam*, in editioribus insulæ, haud infrequens.

This *Bembidium* is somewhat on the same type as the *B. sublimbatum*; but it is very much smaller and a little more shining, and has its limbs relatively slenderer, its eyes are proportionately more minute, its frontal and prothoracic foveæ (the latter of which are greatly abbreviated) are more distinct, its prothorax is more truncated (and even *submarginate*) in the centre behind, and its elytra (the two punctures of which, on the third interval, are much less conspicuous) are not quite so convex, and (while possessing the same kind of sublateral ante-apical blotch on either side posteriorly) are free from a decidedly rufescent limbus, but have often a very obscure patch (in many specimens completely obsolete) at the shoulders.

It is only on the lofty central ridge that I have observed the *B.*

trechoides,—where, however, in damp places generally, amongst the cabbage trees and tree ferns, it is not particularly uncommon, on the densely-covered slopes about Actæon and Diana's Peak; but I did not meet with it in the more western and rather less elevated parts towards High Peak and West Lodge, where the *B. sublimbatum* would seem to occur.

(Subgenus *Endosomatium*, Woll.)

10. *Bembidium megalops*, n. sp.

B. ovali-ellipticum, subnitidum, aut nigrum aut piceo-nigrum necnon obsoletissime subænescens; capite (in utroque sexu) magno, valde profunde et latissime longitudinaliter bisulcato (regione centrali, inter sulcos, ovali elevatâ); prothorace subtriangulari (sc. postice gradatim angustato et subattenuato), postice distincte bifoveolato; elytris obovatis, convexis, profunde grosse et æqualiter striatis, interstitio tertio punctis binis notato, maculis parvis plurimis longitudinalibus lurido-testaceis ornatis; antennis pedibusque subrobustis, illis (art^o basilari rufo-testaceo excepto) palpisque piceis, his piceo-testaceis.

Mas tarsorum anticorum art^o basilari leviter dilatato.

Long. corp. lin. circa 1½.

Habitat truncos Dicksoniæ arborescentis, humidos, emortuos, putridos; in editioribus parcissime degens.

The enlarged, deeply bisulcated head (in both sexes) of this singular *Bembidium*, added to its obtriangular prothorax and obovate, convex, and very coarsely and regularly striated elytra, which are ornamented with a number of small longitudinal lurid-testaceous spots, will sufficiently distinguish it. Like the five following species (though less decidedly so than the *last four* of them), its antennæ are somewhat short, robust, and moniliform, rather than long and filiform; and its legs are also less slender than in the normal members of the genus; but its eyes, though small, are not actually minute. In the few specimens which I have seen, there is a faint ænescent tinge.

It is only within the damp and rotten stems of the old tree ferns that I have observed the *B. megalops*; and as I merely obtained three examples, it may be presumed to be of the greatest rarity. They were all found on the lofty, densely-wooded central ridge, in the neighbourhood of Actæon and Diana's Peak.

11. *Bembidium dicksoniæ*, n. sp.

B. ovale, subnitidum, aut piceum aut nigrum; capite fere integro; prothorace angustulo, obtriangulari, fere integro, postice in medio truncato; elytris ovalibus, convexis, striatis (striis versus latera punctulatis), interstitio tertio punctis binis notato, maculis plurimis plus minus confluentibus aut suffusis ochreo-testaceis ornatis; antennis (art^o basilari piceo-testaceo excepto) palpisque fusco-piceis, pedibus rufo-piceis.

Mas tarsorum anticorum art^o basilari leviter dilatato.

Long. corp. lin. circa 1.

Habitat editiores insulæ, in truncis emortuis *Dicksoniæ arborescentis* degens.

The *modus vivendi* of this *Bembidium* is precisely similar to that of the preceding and four following ones,—it having been obtained from the interior of the damp fibrous stems of the dead tree ferns on the high central ridge in the vicinity of Diana's Peak. It is without doubt extremely rare; nevertheless I met with 17 examples of it, from first to last, by bringing away portions of the old *Dicksonias* and breaking them up carefully, at home, into small fragments, over a white cloth,—which embodies a far more successful method for securing these Filicophilous Coleoptera than by examining the trunks hastily *in situ*.

In its general coloration the present *Bembidium* has a good deal in common with the *B. megalops*; nevertheless it is considerably smaller, and its head is not only *not* enlarged but also very nearly *simple* (there being no traces of the two deep longitudinal furrows, and somewhat raised central space, which are so conspicuous in that species). Its prothorax (although on the whole obtriangular) is, in proportion, appreciably narrower, and well-nigh free from hinder foveæ; and its elytra are less coarsely striated (the outer striæ, moreover, being perceptibly punctate), and have their numerous patches relatively larger and of a more ochreous yellow, as well as (often) more confluent and *suffused*. Its head and prothorax are but seldom completely black (being more frequently piceous-black, or even piceous); and I cannot detect any ænescent tinge on their surface.

12. *Bembidium rufosuffusum*, n. sp.

B. oblongum, angustulum, nitidum, nigrum (rarius piceo-nigrum); capite breviter bifoveolato; prothorace sub-obtriangulari, convexo, postice brevissime bifoveolato (foveolis fere punctiformibus); ely-

tris suboblongis, fortiter striato-punctatis (striis postice et versus latera evanescentibus, sed striâ suturali profundâ integrâ), interstitio tertio punctis binis (anteriore indistincto) notato, antice plus minus late et læte rufo-testaceo-suffusis, postice inæqualiter piceo-nigris; antennis pedibusque (præcipue tarsis) brevibus, robustis, illis valde moniliformibus piceo-brunneis, ad basin palpisque clarioribus, his testaceis.

Mas tarsorum anticorum art^o basilari vix (*i. e.* levissime) dilatato.

Long. corp. lin. circa $\frac{7}{8}$.

Habitat in locis similibus ac præcedens, sub truncis *Dicksoniæ arborescentis* humidis putridis præcipue occurrens.

Like its immediate allies, this little *Bembidium* is of great rarity, and confined (so far as I have observed) to the high central ridge,—where it occurs generally (though not always) beneath the moist stems of the rotten tree ferns about Diana's Peak and Actæon. I obtained, however, but 8 examples of it in all; though a ninth, taken in the same district, has since been communicated by Mr. P. Whitehead.

The *B. rufosuffusum* is one of the smallest of the St.-Helena *Bembidia*; and it may be known from the cognate species by its narrower and more oblong (or less rounded) outline; by its elytra being brightly (though gradually) rufescent in front, but darker (though not quite uniformly so) behind, and with their striæ strongly punctured anteriorly, but vanishing posteriorly and at the sides,—excepting, however, the sutural one, which is deep and continuous*; and by its limbs being short and robust, the antennæ especially having their joints abbreviated and moniliform.

13. *Bembidium gemmulipenne*, n. sp.

B. subovatum, nitidissimum, nigrum; capite beviter bifoveolato; prothorace subcordato, convexo, postice brevissime bifoveolato (foveolis fere punctiformibus); elytris rotundatis, valde convexis, grosse marginatis, esculpturatis, solum striâ suturali profundâ integrâ impressis, in loco interstitii tertii punctis binis obscuris indistincte notatis, maculis maximis duabus (unâ sc. basali et alterâ subapicali) plus minus distincte ornatis; antennis pedibusque breviusculis, robustis, illis valde moniliformibus piceo-brunneis, ad basin palpisque clarioribus, his testaceis, tarsis subobscurioribus.

Mas tarsorum anticorum art^o basilari vix dilatato.

Var. β, elytris fere nigris, sc. maculâ basali omnino obsoletâ, atque etiam subapicali obscurâ.

* This character of a deep sutural stria is absent from the preceding members of the genus, but distinguishes the present one and the remaining three.

Var. γ, prothorace rufo-testaceo.

Long. corp. lin. $\frac{7}{8}$ —vix 1.

Habitat humidus excelsos; sub ligno marcido *Compositarum* et *Dicksoniæ* parce deprehensum.

A most extraordinary little *Bembidium*, at once recognizable by the extreme *roundness* and convexity of its elytra and its *highly polished* surface. The former, which have no appearance of sculpture except a deeply-impressed sutural line, are very broadly and coarsely margined; and they are somewhat variable in colouring,—having either a large basal and ante-apical paler patch (occasionally so much developed as to be separated from each other by merely a suffused darker median band or space), or else (*var. β*) with the anterior blotch obsolete and even the hinder one not very conspicuous, under which circumstances the elytra appear at first sight to be well-nigh black. Its prothorax also is liable to become paler, being now and then (*var. γ*) rufo-testaceous. Its limbs (the antennæ of which are moniliform) are rather thick and robust; and its prothorax, like the elytra, is very convex.

Like most of its congeners the *H. gemmulipenne* is extremely rare, and confined to the densely-wooded ridges of a high elevation,—where we met with (from first to last) 16 examples of it, in the vicinity of Diana's Peak and Actæon. Although taken occasionally within the rotten stems of the tree ferns, I think we found it quite as frequently beneath sticks and the fallen trunks of the cabbage trees, particularly in the dampest and most shady spots.

14. *Bembidium fossor*, n. sp.

B. breve, convexum, nitidissimum, castaneum, immaculatum; capite distincte bifoveolato; prothorace ovali, convexo, postice brevissime bifoveolato (foveolis distinctis punctiformibus); elytris obovatis basi subrecte truncatis, valde convexis, esculpturatis, solum striâ suturali profundâ postice subevanescente impressis, in loco interstitii tertii punctis binis parvis notatis; antennis moniliformibus, piceo-brunneis, ad basin palpisque testaceis; pedibus (præcipue posticis) brevibus et (præcipue anticis) robustis, clare rufo-piceis.

Mas tarsorum anticorum art° basilari vix dilatato.

Long. corp. lin. vix 1.

Habitat editiores sylvaticos, in trunco quodam antiquo *Dicksoniæ arborescentis* semel tantum repertum.

With the exception of the *B. evanescens*, this is the smallest of the St.-Helena *Bembidia*; and it is perhaps the rarest of the whole of

them, being hitherto unique. My example was taken by myself from the interior of the decayed stem of a tree fern, which I had brought away for after-examination from the vicinity of Diana's Peak.

The *B. fossor* is one of the most peculiar of the species which have yet been brought to light,—its abbreviated form, extremely convex and highly polished surface, and its rich castaneous hue, added to its obovate, almost unsculptured elytra (which are *more straightly truncated at the base* than in the allied species, and have merely a deeply impressed though posteriorly-*evanescent* sutural line), and (for a *Bembidium*) the shortness of its legs, *particularly of the hinder pair*, giving it a character which it is impossible to mistake. Its antennæ (which are moniliform) are not particularly robust, but its anterior legs are rather more so than usual,—being somewhat in accordance with its subfossorial, darkling mode of life.

15. *Bembidium evanescens*, n. sp.

B. oblongum, rufo-testaceum aut pallide ferrugineum, immaculatum; capite prothoraceque nitidissimis, illo majusculo breviter bifoveolato oculis minutissimis, hôc cordato, posticê fere integro; elytris oblongis, paulo minus nitidis (sc. subalutaceis), grosse marginatis, striâ suturali leviter impressis, in loco interstitii tertii punctis binis parvis notatis, interdum in disco obscuratis suturâ sensim pallidiore; antennis pedibusque robustis, crassiusculis, illis moniliformibus palpisque infusate testaceis, illis (præcipue tarsis) brevibus, testaceis.

Mas tarsorum anticorum artº basilari leviter dilatato.

Long. corp. lin. circa $\frac{3}{4}$.

Habitat in excelsioribus insulæ, in truncis emortuis marcidis *Dicksoniæ arborescentis* præcipue latens.

This is the most diminutive of the St.-Helena *Bembidia*, and one which may be known from its allies by its oblong outline, less convex body, and pale rufo-testaceous hue,—its elytra being merely *at times* a little infuscated on their disk, leaving the suture just perceptibly less darkened. In proportion to the smallness of its stature, its head is rather largely developed, though the eyes are extremely minute; its prothorax is cordate, and almost free from hinder foveæ; and its elytra, which are a little less shining than the rest of the surface, are coarsely margined and provided only with a not very deep sutural line. Its limbs (for a *Bembidium*) are robust, the antennæ being moniliform, and the legs (particularly the feet) somewhat shortened.

The *B. evanescens* is one of the most decidedly fern-infesting species of the whole, its very minute eyes and rather shortened powerful legs (in proportion to its bulk) being eminently in keeping with its *modus vivendi*—far within the damp fibrous trunks of the dead tree ferns; for although I have occasionally taken it on the under-surface of fallen stems, it is far more often to be found quite in the interior, where there can be no doubt that it normally resides. Like the other members of the genus, it is rare; nevertheless, I met with about two dozen examples of it, from first to last,—all of which were obtained from the high central ridge, in the direction of Diana's Peak and Actæon.

Sectio 2. PHYLHYDRIDA.

Fam. 2. SPHÆRIDIIDÆ.

Genus 5. CYCLONOTUM.

(Dejean) Erichs., *Käf. der. Mark Brand.* i. 212 (1837).

16. *Cyclonotum dytiscoides*.

C. "ferrugineum, elytris atris. Statura et magnitudo *Sphæridii scarabæoides*; totum glabrum, nitidum. Antennæ rufæ, perforatae. Caput, thorax, pectus, abdomen rufa; elytra atra, glabra." [Ex *Fabricio*.]

Sphæridium dytiscoides, *Fab.*, *Syst. Ent.* 67 (1775).

— —, *Oliv.*, *Ent.* 2. 15, t. 2. f. 10 (1790).

— —, *Fab.*, *Syst. Eleu.* i. 94 (1801).

— —, *Woll.*, *Ann. Nat. Hist.* iv. 306 (1869).

Cyclonotum dytiscoides, *Id.*, *ibid.* ix. 114, note (1872).

Sphæridium dytiscoides, *Melliss.*, *St. Hel.* 139 (1875).

Habitat "in ins. St. Helenæ. *Mus. Dom. Banks.*" [sec. *Fabricius*, A.D. 1775.]

It is with some hesitation that I assign a place to this insect in our present volume; for although it was originally described by Fabricius from a professedly St.-Helena example in the collection of the late Sir Joseph Banks, we have but too good evidence concerning the extreme inaccuracy of many of the *habitats* which were cited about that period; whilst the fact that the species in question occurs at the Cape of Good Hope would perhaps (in the absence of all traces of it now in the island) favour the idea that material from the latter locality may have been inadvertently mixed up with that

from St. Helena. Still, this is but conjecture; and it is far from impossible that it may have been accidentally imported from the Cape (along, perhaps, with consignments of plants), and have since died out; or, on the other hand, that it may still exist by the edges of some of the streams or watercourses, and have escaped our notice. At any rate, I do not see that we have any right to refuse it admission, though I may entertain my private doubts as to its real St.-Helena claims. Perhaps some future collector may yet bring the species to light, in which case the desirability of having acknowledged it now will at once become apparent.

The *C. dytiscoides* was quoted by Fabricius as a *Sphæridium*; and in an article on St.-Helena Coleoptera in 1869 I accordingly entered it as such, being totally ignorant of what the species really was. Nevertheless I expressed my belief (judging from the short published diagnosis, and from the rough figure of it given by Olivier) that it would probably prove to be "a *Cyclonotum*, with the head and prothorax rufo-ferruginous and the elytra black;" and so, indeed, it appears to be,—for in a subsequent paper, in 1872, I stated that I had received a note from the late Mr. G. R. Crotch to the effect that the *Sphæridium dytiscoides* of Fabricius is still preserved in the Banksian cabinet, and that a friend of his who had recently examined it reported it to be totally distinct from the *Dactylosternum abdominale*, being, in point of fact (as, indeed, I had ventured to think probable), a true *Cyclonotum*, and one which occurs also at the Cape of Good Hope.

I can only trust, therefore, that some more fortunate explorer will yet enable us to verify the truth of the originally asserted *habitat*, and to add the *C. dytiscoides* without doubt to the modern fauna of the island.

Genus 6. DACTYLOSTERNUM.

Wollaston, *Ins. Mad.* 99 (1854).

17. *Dactylosternum abdominale*.

D. oblongum, convexum (subtus planatum), nitidum, ubique densissime minutissimeque punctulatum; capite sub-semicirculari; prothorace brevi, transverso, postice inter angulum et medium foveolâ punctiformi utrinque leviter impresso; elytris minute punctulato-striatis; antennis palpisque testaceis, illarum clavâ obscuriore; pedibus brevibus, compressis, rufo-piceis.

Long. corp. lin. 2-2½.

- Sphæridium abdominale*, *Fab., Ent. Syst.* i. 79 (1792).
Dactylosternum Roussetii, *Woll., l. c.* 99, t. 3. f. 1 (1854).
 — *abdominale*, *Id., Col. Atl.* 80 (1865).
 — —, *Id., Col. Hesp.* 48 (1867).
 — —, *Id., Ann. Nat. Hist.* iv. 306 (1869).
 — —, *Crotch, in Godm. Azor.* 65 (1870).
 — —, *Melliss, St. Hel.* 139 (1875).

Habitat sub marcidis quisquiliisque in hortis cultisque insulæ, humidos intermedios subaquosos præcipue colens.

This widely-spread Mediterranean insect, which occurs in the Azorean, Madeiran, Canarian, and Cape-Verde archipelagos (and which is reported also from Madagascar, Bourbon, and the East Indies), has become established in the intermediate districts of St. Helena, where there can be no doubt that it must originally have been naturalized. It is found usually beneath decaying garden refuse, particularly in the dampest spots; and, along with the *Cyclonotum dytiscoides* (which was recorded by Fabricius from St. Helena in 1775, but which, as lately mentioned, I look upon, at all events *now*, as a very doubtful native of the island), it makes the nearest approach to anything like an aquatic form which has hitherto been discovered. Nevertheless it is needless for me to add that it is *not* aquatic, and only questionably, indeed, even *Philhydrydous* (as technically understood by that term), though delighting often in watery localities.

The *D. abdominale* does not appear to be anywhere very abundant in St. Helena. I have, however, taken it sparingly under putrid garden-rubbish at Plantation, and it has been found by Mr. P. Whitehead at Woodcot. The St.-Helena examples have their antennal club a little more darkened, or infuscated, than is the case in Madeiran ones which are now before me.

Sectio 3. TRICHOPTERYGIA.

Fam. 3. TRICHOPTERYGIDÆ.

Genus 7. PTINELLA.

(Motschoulsky) *Matth., Zool.* xvi. 6106 (1858).

18. *Ptinella Matthewsiana*, n. sp.

P. ovalis, sat convexa, ferruginea, pilis aureo-fulvescentibus vestita; capite magno, lato, in fronte rotundato, oculis minutissimis,

pallidis; prothorace magno, quadrato, ad latera rotundato, tuberculis parvis remotis ordinibus sinuatis dispositis interstitiisque nitidis alutaceis ornato, angulis posticis fere rectis; elytris ovatis (capite prothoraceque brevioribus), ordinibus remotis irregularibus sat profunde asperatis, apicibus rectis; abdomine ovato, obtuso, segmentis 5 apertis; antennis pedibusque albido-testaceis.

Long. corp. lin. $\frac{6}{18}$.

Habitat in editioribus insulæ; inter detritus fungosque putridos, in trunco quodam antiquo emortuo, sat copiose reperta.

This exceedingly diminutive beetle, at once known (amongst the other species with which we are here concerned) by its almost microscopic size and its pale ferruginous hue, is the only member of the *Trichopterygidæ* which has hitherto been discovered at St. Helena; and I have much pleasure in naming it after the Rev. A. Matthews (the indefatigable monographer of that assemblage of minute insects), who has not only examined it for me with considerable care, but has kindly furnished me with a diagnosis in which the main characters which separate it from the other known *Ptinellæ* (with which he is so intimately acquainted) have been kept in view,—its most salient feature consisting, so far as I can gather, in the comparative largeness and breadth of its subquadrate prothorax. It is only in a single locality, and that one at a high elevation on the central ridge, that we observed the *P. Matthewsiana*,—namely amongst minute fungi and damp triturated refuse, within the hollow trunk of an old *Buddleia madagascariensis*, Vahl, below Actæon and close to a spot called Newfoundland. It was first detected by Mrs. Wollaston, who immediately recognized it as a member of the *Trichopterygidæ*; and I subsequently obtained a tolerable number of examples by bringing away at intervals small portions of the decomposing refuse and examining it closely on a white cloth.

Out of the ten species of *Ptinella* which are included in Mr. Matthews' elaborate Monograph, seven are European and three are American,—two however, out of the seven European ones, occurring also in the Canaries, and one at Madeira; so that this exponent from St. Helena possesses a considerable interest geographically.

Sectio 4. BRACHELYTRA.

Fam. 4. STAPHYLINIDÆ.

(Subfam. 1. ALEOCHARIDES.)

Genus 8. ALEOCHARA.

Gravenhorst, *Col. Micropt.* 67 (1802).19. *Aleochara puberula*.

A. angustulo-fusiformis, subnitida, minute et densissime punctulata pubesque fulvescenti demissâ dense sericata, nigra; capite subrotundato; prothorace lato, transverso, convexo, in limbo sæpius anguste dilutiore; elytris brevibus, rubescentibus sed versus angulos externos et scutellum (in spatiis maximis subtriangularibus) plus minus evidenter sed suffuse obscuratis; abdomine ad apicem subdilutiore; antennis crassiusculis, nigro-piceis, basi et ad apicem ipsissimum, palpis ad basin, pedibusque plus minus testaceis.

Long. corp. lin. circa $2\frac{1}{4}$.

Aleochara puberula, *Klug*, *Col. Madagasc.* 51 (1833).

— *decorata*, *Aubé*, *Ann. Soc. Ent. de France*, 311 (1850).

— *Armitagei*, *Woll.*, *Ins. Mad.* 559 (1854).

— *puberula*, *Id.*, *Col. Atl.* 473 (1865).

— —, *Id.*, *Col. Hesp.* 229 (1867).

— —, *Crotch*, in *Godm. Azor.* 87 (1870).

Habitat inter quisquilias in cultis intermediis; a meipso in horto ad Plantation semel capta.

I took a single example of this widely spread European *Aleochara* amongst garden-refuse at Plantation; and there can be little doubt that the species has been introduced into the island, along, perhaps, with consignments of plants. It has become established, in like manner, in the Azorean, Madeiran, Canarian, and Cape-Verde groups; and there are records of it, also, from many distant parts of the civilized world.

The fusiform outline and very densely and minutely punctulated surface of the *A. puberula*, which is sericated all over with a decumbent fulvescent pile, added to the slightly diluted margins of its wide prothorax, the ill-defined or suffused oblique reddish dash with which each of its elytra is ornamented, and the fact of its rather thickened antennæ having (not only their base, but) their *extreme* apex testaceous, will sufficiently distinguish it.

Genus 9. HOMALOTA.

Mannerheim, *Brachel.* 73 (1831).20. *Homalota coriaria*.

H. angusto-linearis, subnitida, minutissime et densissime (in capite abdomineque parcius) punctulata pubesque griseâ demissâ subtili sat dense sericata, nigra, elytris (brevibus) plus minus evidenter dilutioribus sed versus angulos externos et scutellum plus minus suffuse triangulariter obscuratis; capite subtransverso-rotundato, oculis magnis; prothorace brevi, transverso, postice rotundato, angulis posticis rotundate obtusis sed sensim determinatis, in disco postico (interdum ad basin solum) leviter impresso; antennis breviusculis, crassis (art^{is} subapicalibus conspicue transversis), nigro-piceis, ad basin paulum dilutioribus; pedibus saturate testaceis.

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

Homalota coriaria, Kraatz, *Nat. Ins. Deutsch.* ii. 282 (1856).

———, *Woll., Col. Atl.* 469 (1865).

———, *Id., Col. Hesp.* 223 (1867).

———, *Crotch, in Godm. Azor.* 88 (1870).

———, *Woll., Ann. Nat. Hist.* viii. 409 (1871).

———, *Melliss, St. Hel.* 162 (1875).

Habitat inter quisquilias, in intermediis editioribusque (præsertim illis); vulgaris.

The European *H. coriaria*, which is one of the most widely diffused of the *Homalotas* throughout the various Atlantic islands (it having been established in the Azorean, Madeiran, Canarian, and Cape-Verde archipelagos), is universal amongst refuse in the intermediate districts of St. Helena,—where it must almost certainly have been naturalized (along perhaps with consignments of plants) from more northern latitudes. Although commoner in cultivated places, and amongst garden rejectamenta, than elsewhere, it ascends likewise to the central ridge,—where I have met with it sparingly about Diana's Peak and Actæon; but in spots of a lower altitude—such as Plantation, West Lodge, and Thompson's Wood—it is far more general and abundant.

Its posteriorly rounded head and prothorax (the latter of which is wide, abbreviated, and basally impressed), in conjunction with its short, dilated, and very densely and finely punctulated elytra, and its considerably thickened antennæ, will suffice to separate the *H. coriaria* from the only other *Homalota* with which we have here to do.

21. *Homalota helenensis*, n. sp.

H. præcedenti primâ facie similis, sed sensim rugosius punctulata, capite pone oculos paululum minus rotundato, prothorace sensim minus abbreviato et postice minutius impresso, elytris sublongioribus (sc. quadratis) ac vix depressioribus, magis regulariter fuscescentibus (aut minus subtestaceo-dilutis), antennisque longioribus ac multo gracilioribus.

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

Habitat in locis valde elevatis; sub cortice *Compositarum* arborescentium laxo marcido, necnon inter quisquilias, degens.

So far as I am able to judge, the present *Homalota* seems to be truly indigenous at St. Helena,—and, indeed, the only member hitherto observed of that very extensive genus which has any claim to belong to the aboriginal fauna of the island. At any rate, it is on the high central ridge alone that I met with it,—where it abounds beneath the damp and loosened bark of the various cabbage-trees, as well as amongst decaying vegetable refuse, in the neighbourhood of Diana's Peak and Actæon; and I have no recollection of having ever captured it within the strictly cultivated districts.

Although with every appearance of being a real native of the island, the *helenensis* is nevertheless a most ordinary-looking and inconspicuous *Homalota*, and one which has much the *primâ facie* contour of the *coriaria* (with which, indeed, in the loftier regions, it is frequently found associated). There can be no question, however, that it is truly and altogether distinct from that species,—its more coarsely punctulated surface, and its longer and thinner antennæ, being sufficient, even of themselves, to separate it. But, apart from these characters, its head is not *quite* so much rounded-off behind the eyes, its prothorax is appreciably less abbreviated and more minutely impressed in the centre of the base, and its elytra are a trifle longer or more *quadrate*, as well as for the most part of a more uniformly dark piceous brown,—the slightly diluted portions being seldom, if ever, subtestaceous.

(Subfam. 2. STAPHYLINIDÆ.)

Genus 10. CREOPHILUS.

(Kirby) Steph., *Ill. Brit. Ent.* v. 202 (1832).

22. *Creophilus maxillosus*.

C. magnus, elongatus, parallelus, ater; capite prothoraceque nitidis-

simis, illo subquadrato, in disco minute et leviter sed ad latera et postice grossissime parce et profunde punctato, collo aperto crasso convexo, ad latera et postice grosse punctato; hôte subquadrato sed postice paulum angustiore et rotundato, angulis posticis rotundatis, ad latera sinuato, (limbo anguste punctato excepto) fere impunctato, versus angulos anticos longe nigro-piloso; scutello elytrisque distinctius punctatis, his punctis perpaucis maximis in disco exteriori longitudinaliter notatis, longe nigro-pilosis fasciâque magnâ transversâ cinereâ ornatis; abdomine dense asperato-punctulato, longe nigro-piloso pilisque cinereis (præsertim in segmentis intermediis) fasciato-marmorato; antennis pedibusque nigris, tibiis dense pilosis ac spinulosis.

Long. corp. lin. 9-11.

Staphylinus maxillosus, Linn., *Syst. Nat.* 421 (1758).

Creophilus maxillosus, Woll., *Coll. Atl.* 487 (1865).

— —, *Id.*, *Ann. Nat. Hist.* v. 35 (1870).

— —, *Crotch*, in *Godm. Azor.* 90 (1870).

— —, *Melliss*, *St. Hel.* 163 (1875).

Habitat in cadaveribus, putridis, et etiam (rarius) stercore bovino, per regiones intermedias et editiores, passim; ex alienis certe introductus.

The common European *C. maxillosus* (so well distinguished by its large size and deep-black, darkly-pilose surface, which, however, is ornamented across the elytra with a broad whitish band, and which has the abdominal segments more or less mottled with smaller fasciæ of the same hue) has become naturalized at St. Helena, as it has in the Azorean, Madeiran, and Cape-Verde archipelagos. In all probability it is well-nigh universal, though it was only at intermediate and lofty altitudes (from Plantation to the central ridge) that I happened to meet with it. As elsewhere, it occurs usually beneath dead animals and amongst putrid substances generally, and occasionally also (though rarely) in the droppings of cattle. Mr. Melliss states that he has found it in the vicinity of churchyards.

Genus 11. **PHILONTHUS.**

(Leach) Curt., *Brit. Ent.* xiii. t. 610 (1825).

§ I. *Prothoracis seriebus dorsalibus è punctis 4 (præter basalem) compositis.*

23. *Philonthus flavoterminalis*, n. sp.

P. angustulo-linearis; capite prothoraceque atris, nitidissimis, illo subquadrato-ovali punctisque perpaucis magnis utrinque irrorato,

hâc elongato-quadrato, ad latera (extus seriem punctorum 4) punctis magnis circa 4 notato; scutello elytrisq̃ ænescentibus, sat dense subasperato-punctatis, his striâ subsuturali obtusâ impressis, griseo-pilosis; abdomine nigro, griseo-piloso, parce asperato-punctato, segm^{tis} 2 basalibus postice transversim convexis necnon ad basim ipsam in medio grossius punctatis; antennis (art^o 1^{mo} valde elongato, 3^{tio} elongato, 2^{do} huic brevior) pedibusq̃ elongatis, gracilibus, illis nigrescentibus art^{is} 2 ulterioribus subito et læte flavo-testaceis, femoribus testaceis, tibiis tarsisque testaceo-piceis.

Mas antennis longioribus, capite majore et magis quadrato, tarsis anticis paulum dilatatis.

Long. corp. lin. 3-3½.

Habitat in intermediis editioribusq̃ insulæ; in humidis rarissimus.

This extremely distinct *Philonthus* may perhaps be a true native of the island, though the few examples of it which I have yet seen (only three in number) are perhaps scarcely sufficient to warrant a conjecture on that point. It was first met with by Mr. Gray on the high central ridge; and subsequently by myself in the same locality, as well as in a muddy spot at Plantation.

Apart from its prothoracic line of dorsal punctures being composed of only four on either side (though I should mention that in one of my examples, a male, there is a *fifth* one, in each series, at the base,—which, however, I *imagine* belongs in reality to the few which are scattered along the hinder margin, rather than to the central longitudinal rows), the *P. flavoterminalis* may instantly be recognized by its *brassy* elytra and the two bright yellowish articulations which terminate its otherwise nearly black antennæ. Its head, in the male sex, is large and squarish; its first and third antennal joints (especially the former) are conspicuously elongated; and its femora are testaceous, with the tibiæ and tarsi a good deal (though by no means altogether) picescent.

§ II. *Prothoracis seriebus dorsalibus è punctis 5 compositis.*

24. *Philonthus longicornis.*

P. angustulus, fusiformi-linearis, ater; capite prothoraceque nitidissimis, illo ovali punctisque perpaucis magnis utrinque irrorato, hâc subconico (antice angustiore), ad latera (extra seriem punctorum 5) punctis magnis perpaucis notato; scutello elytrisq̃ sat dense asperato-punctulatis ac longe griseo-pilosis, concoloribus, his integris (nec striâ subsuturali impressis); abdomine minutius

parciusque punctulato et obsoletissime submetallico-tincto, griseo-piloso; antennis brunneo-nigris; pedibus nigro-piceis, coxis anticis saturate testaceis et etiam femoribus interdum paululum subtestaceo-dilutioribus, tarsis posterioribus elongatis.

Mas antennis sublongioribus, tarsis anticis dilatatis.

Long. corp. lin. 3-4.

Philonthus longicornis (Kby.), *Steph., Ill. Brit. Ent.* v. 237 (1832).

— *scybalarius et fuscicornis*, *Nordm., Symb.* 94, 96 (1838).

— — —, *Woll., Col. Atl.* 492 (1865).

— — —, *Id., Col. Hesp.* 237 (1867).

— *longicornis*, *Id., Ann. Nat. Hist.* viii. 409 (1871).

— — —, *Melliss, St. Hel.* 162 (1875).

Habitat in intermediis editioribusque, passim; sub quisquiliis stercoreque bovino degens. Certe introductus.

The common European *P. longicornis* (at once distinguished amongst the few *Philonthi* here enumerated by its large size and uniformly black hue,—the anterior coxæ, and sometimes even the femora, being alone a little diluted, or subtestaceous) is pretty generally distributed over the intermediate and lofty districts of St. Helena,—from about the altitude of Plantation (where it is tolerably abundant amongst decaying garden-refuse) to the central ridge; and there can be no doubt that it has been naturalized from more northern latitudes. Owing to its constant liability to accidental transmission amongst civilized countries, it is a species which has acquired for itself a wide geographical range; and in the Azorean, Madeiran, Canarian, and Cape-Verde groups, as well as at Ascension (where it was taken, on the Green Mountain, by the late Mr. Bewicke), it has become completely established.

25. *Philonthus discoideus*.

P. angustulo-linearis, niger (sæpe piceo-niger); capite prothoraceque nitidissimis, illo subquadrato convexo punctisque perpauca magnis utrinque irrorato, hâc elongate subconico-quadrato, ad latera (extra seriem punctorum 5) punctis magnis perpauca notato; scutello elytris que sat dense subasperato-punctulatis et longe fulvescenti-pilosis, his per suturam rûfo-ferrugineis lineâque subsuturali obsoletâ leviter impressis; abdomine piceo-nigro, minute subasperato-punctulato, fulvo-piloso; antennis breviusculis, submoniliformibus, læte ferrugineis; pedibus piceo-testaceis.

Mas antennis sublongioribus, tarsis anticis dilatatis.

Long. corp. lin. 2½.

Staphylinus discoideus, *Grav., Col. Micropt.* 38 (1802).

Philonthus discoideus, *Woll., Col. Atl.* 493 (1865).

— — —, *Id., Col. Hesp.* 238 (1867).

Habitat in intermediis insulæ ; a meipso, sub quisquiliis ad Plantationem, semel deprehensus.

Like the *P. longicornis* and *nigritulus*, this common European *Philonthus* is of course a merely introduced insect at St. Helena,—where in all probability it must have been imported originally along with consignments of plants. The only example of it which I have seen was captured by myself, amongst garden-refuse, at Plantation ; but the species would most likely be found to be sufficiently abundant if searched for in similar localities. It has, in like manner, become established in the Madeiran, Canarian, and Cape-Verde archipelagos.

Apart from the *five* punctures of which either row of its dorsal prothoracic series is composed, the *P. discoideus* (which is the smallest of the St.-Helena *Philonthi* except the *nigritulus*) may be recognized by its subquadrate head and its rather short, submoniliform, brightly ferruginous antennæ, as well as by its suture being broadly and conspicuously diluted in hue. Its elytra and abdomen are clothed with a slightly golden, or fulvescent, pile ; and its subsutural line is shallow and very lightly impressed.

§ III. *Prothoracis seriebus dorsalibus è punctis 6 compositis.*

26. *Philonthus nigritulus.*

P. angustulo-sublinearis, niger ; capite prothoraceque nitidissimis, illo subquadrato sed postice in ♀ paululum angustiore, punctis perpaucis magnis utrinque irrorato, hoc elongate subconico-quadrato, ad latera (extra seriem punctorum 6, interdum solum 5 certe conspicuorum) punctis magnis perpaucis notato ; scutello elytrisque sat dense punctatis, griseo-pilosis, concoloribus (aut interdum obsoletissime subfuscescentioribus), striâ subsuturali leviter impressis ; abdomine minutissime subasperato-punctulato, griseo-piloso ; antennis nigrescentibus, ad basin paululum dilutioribus ; pedibus picescenti-testaceis.

Mas capite paululum oblongiore, tarsis anticis (ut in ♀) simplicibus. Long. corp. lin. vix 2.

Staphylinus nigritulus et aterrimus, Grav., *Col. Micropt.* 41 (1802).

Philonthus aterrimus, Woll., *Ins. Mad.* 584 (1854).

— *nigritulus*, Id., *Col. Atl.* 494 (1865).

— —, Crotch, in Godm. *Azor.* 91 (1870).

Habitat in cultis intermediis ; rarissimus.

I have seen but two St.-Helena examples of this insignificant

little European *Philonthus*, one of which was captured by Mr. Gray at Plantation, and the other by myself at West Lodge; and there cannot be much doubt that the species (as in the case of the *P. longicornis* and *discoideus*) must have been introduced originally into the island from more northern latitudes. It has become established, in like manner, in the Azorean, Madeiran, and Canarian archipelagos; but we did not happen to meet with it at the Cape Verdes.

Its small size and dark concolorous hue (the legs alone being piceo-testaceous), added to its rather distinctly punctured elytra (which, together with the abdomen, are clothed with a coarse griseous pubescence), will suffice to separate the *P. nigritulus* from the few other *Philonthi* with which we are here concerned. *Judging from the two now before me*, the St.-Helena examples would seem to have their elytra a trifle more coarsely punctured than is the case in the ordinary European ones, and the front puncture of their prothoracic series appears to be (as is not unusual elsewhere) obsolete.

§ IV. *Prothoracis seriebus dorsalibus è punctis 6 vel 7 compositis.*

27. *Philonthus turbidus.*

P. angustulo-linearis, subpiceo-niger; capite prothoraceque nitidissimis, illo subquadrato-ovali punctisque perpaucis magnis utrinque irrorato, hóc subconico (antice angustiore), ad latera (extra seriem punctorum 6 vel 7) punctis perpaucis notato; scutello elytrisque sensim picescentioribus, dense et argute subasperato-punctatis, longe griseo-pilosis, his striâ subsuturali leviter impressis; abdomine minutius sed dense subasperato-punctulato, subiridescenti, longe griseo-piloso; antennis brunneis, ad basin vix dilutioribus; palpis pedibusque piceo-testaceis.

Mas antennis sublongioribus, tarsis anticis dilatatis.

Long. corp. lin. $3\frac{1}{2}$ – $4\frac{1}{2}$.

Philonthus turbidus, *Erich., Gen. et. Spec. Staph.* 484 (1839).

— *punctipennis*, *Woll., Col. Atl.* 494 (1865).

— *turbidus*, *Id., Col. Hesp.* 240 (1867).

Habitat (rarior) in intermediis editioribusque insulæ; sub quisquiliis marcidis putridis latens.

The only three St.-Helena examples which I have seen of this somewhat large and very distinct *Philonthus* are one which was found by Mr. Gray on the central ridge, and two which I met with myself (beneath damp and decaying garden-refuse) at Plantation.

It is a species of a very extensively acquired range, though one which does not appear anywhere (so far, at least, as my own experience is concerned) to be even locally abundant; nevertheless it has established itself sparingly in the Madeiran, Canarian, and Cape-Verde groups, and it has been recorded from many countries widely separated from each other,—such as Madagascar, the Mauritius, Egypt, and Assam.

Apart from its rather large size and slightly *piceous*-black hue (particularly as regards the elytra), the *P. turbidus* may be recognized by its prothorax being somewhat narrowed (or compressed) anteriorly (as in the *P. longicornis*), by its elytral punctures being rather deep and sharply defined, and by its abdomen (which is more finely but closely punctulated) being usually a little iridescent.

(Subfam. 3. XANTHOLINIDES.)

Genus 12. XANTHOLINUS.

Dahl, in *Encycl. Méth.* x. 475 (1825).

28. *Xantholinus morio*.

X. angusto-linearis, elongatus, nitidus, niger; capite prothoraceque nitidissimis, illo elongato-subquadrato, postice subrecte truncato, punctis paucis magnis utrinque irrorato, in fronte breviter bicaniculato, hâc elongato, subparallelo, ad latera (extra seriem punctorum 6-7) punctis perpaucis notato; elytris concoloribus, parcissime griseo-pubescentibus necnon confuse et laxè subseriatim punctatis, costâ suturali arcuatâ (postice subevanescente) instructis; abdomine in dorso fere impunctato, ad latera punctulis minutis subasperatis parce irrorato, parcissime griseo-piloso; antennis ferrugineis, art^{is} 1^{mo} et 3^{to} picescentibus; pedibus dilute piceis, tarsis fere testaceis.

Long. corp. lin. vix 3-3½.

Xantholinus morio, Woll., *Ann. Nat. Hist.* viii. 410 (1871).

—, Melliss, *St. Hel.* 163 (1875).

Habitat in editioribus; sub cortice emortuo laxo putrido *Compositarum* arborescentium præcipue latitans.

In all probability the present *Xantholinus* belongs to the aboriginal fauna of the island. At any rate it seems peculiar to the higher elevations, never descending (so far as I am aware) into the strictly cultivated districts; indeed the lowest altitude at which I observed

it was Vine-Tree Gut (nearly 2000 feet above the sea),—a small ravine between Oakbank and Hutt's Gate, issuing out of Stitch's Ridge. In the direction, however, of Diana's Peak and Actæon (where it was found likewise by Mr. Gray) it is far more abundant, occurring especially beneath the damp and putrid bark of the decayed cabbage trees; and I have captured it commonly (particularly on the wing) amongst the cabbage trees at Cason's, as well as at West Lodge and (more sparingly) on the summit of High Peak.

The uniformly deep black hue of the *X. morio*—the antennæ of which, however, are ferruginous, with their *first and third joints darkish*, whilst the legs are diluted piceous and the feet nearly testaceous,—added to its rather elongate-subquadrate head (the hinder angles of which are obtusely rounded) and concolorous elytra, will sufficiently distinguish it from the following species.

29. *Xantholinus armatus*, n. sp.

X. præcedenti similis, sed paulum minor, capite etiam submagis elongato-quadrato, angulis posticis minus rotundatis aut multo magis determinatis (sc. minutissime etiam exstantibus), utrinque densius punctato, prothoracis seriebus dorsalibus e punctis minoribus ac paulum magis numerosis (sc. 8-9) compositis, aliisque versus latera magis curvatim dispositis, elytris sensim dilutioribus, postice etiam subtestaceo-translucentibus, antennis pedibusque pallidioribus (sc. rufo-testaceis).

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

Habitat in intermediis insulæ, rarissimus. Dua specimina ad Plantation cepi.

The present Staphylinid has much the appearance at first sight of the common European *Leptacinus parumpunctatus*; but the less reduced terminal joint of its palpi show it to be a true *Xantholinus*; whilst its *two* (instead of four) frontal grooves, and the smaller and more numerous punctures of its prothoracic series, will still further distinguish it from that insect. From the *X. morio* it differs in being smaller, and in having its head (which is more densely punctured on either side) not only more strictly elongate-*quadrate* but with the posterior angles less rounded off,—the latter being, in fact, minutely *prominent*, or thickened into what might almost be defined as a small anguliform spinule. Its elytra, also, instead of being black, are (as in the European *X. hesperius* and the *Leptacinus parumpunctatus*) slightly diluted in hue, and even testaceous (and

somewhat translucent) behind ; its prothorax has the dorsal series composed of punctules which are both smaller and a little more numerous, the sublateral ones also having a tendency to be arranged in a longitudinal curve ; its elytral punctures are likewise less coarse, and more longitudinally disposed ; and its limbs are altogether paler, being rufo-testaceous.

The only examples of the *X. armatus* which I have yet seen are two which were captured by myself at Plantation.

(Subfam. 4. PÆDERIDES.)

Genus 13. **LITHOCHARIS.**

(Dejean) Boisd., *Faun. Ent. de Paris*, i. 431 (1835).

30. **Lithocharis ochracea.**

L. linearis, fusco-ferruginea, subopaca, confertissime subtilissimeque punctulata pubesque griseâ demissâ vestita ; capite magno, convexo, triangulari-quadrato, magis nigrescente, oculis magnis ; prothorace subquadrato ; elytris suturâ vix dilutiore ; abdomine fuscescentiore, versus apicem paulum dilutiore ; antennis, palpis, pedibusque testaceis.

Long. corp. lin. circa $1\frac{3}{4}$.

Pæderus ochraceus, Grav., *Col. Micropt.* 59 (1802).

Lithocharis ochracea, Erich., *Gen. et Spec. Staph.* 623 (1839).

— —, Woll., *Col. Atl.* 506 (1865).

— —, Id., *Col. Hesp.* 244 (1867).

— —, Crotch, in Godm. *Azor.* 92 (1870).

Habitat inter quisquilias in intermediis ; in horto ad Plantation capta.

Several individuals of a *Lithocharis* which I took amongst garden-refuse at Plantation are manifestly referable to the common European *L. ochracea*, Grav., a species which has become naturalized in the Azorean, Madeiran, Canarian, and Cape-Verde archipelagos ; and there can be no question that at St. Helena also it must have been introduced originally from higher latitudes. The proportions of their rather large and subtriangularly quadrate head, added to their somewhat opake griseo-pubescent surface, and their extremely fine and close punctation, are in exact accordance with the more northern examples.

31. *Lithocharis debilicornis*.

L. linearis, clare rufo-ferruginea elytris testaceis, subopaca, parce griseo-pilosa; capite prothoraceque minute alutaceis punctulisque levibus (in illo parce) irroratis, illo magno, convexo, quadrato, basi rectissime truncato, oculis parvis sed prominulis; prothorace subquadrato, postice paululum angustiore, antice in medio subproducto; elytris dense et confuse punctatis; antennis (brevissimis, moniliformibus), palpis, pedibusque (brevibus) testaceis, tarsis gracilibus.

Long. corp. lin. 1-vix $1\frac{1}{2}$.

Lithocharis debilicornis, Woll., *Cat. Mad. Col.* 194 (July 1857).

— brevicornis, Allard, *Ann. Soc. Ent. de France*, 747 (1857).

— ægyptiaca, Mots., *Bull. de Mosc.* 664 (1858).

— debilicornis, Woll., *Col. Atl.* 508 (1865).

— —, *Id.*, *Col. Hesp.* 245 (1867).

— —, Crotch, in *Godm. Azor.* 93 (1870).

Habitat inter quisquilias et sub gramine desiccato, in intermediis; minus frequens.

This very singular little *Lithocharis*, which seems to have a rather wide African and South-European range (occurring in Egypt and in Mediterranean latitudes generally, as well as in the Azorean, Madeiran, Canarian, and Cape-Verde archipelagos), I met with amongst garden-refuse and cut grass at Plantation, but in no great abundance. It is a species which may be readily recognized by its small size and clear rufo-ferruginous hue, the elytra, however, being more diluted and almost testaceous; by its relatively large, square, and convex head (which, together with the prothorax, is minutely alutaceous, but sprinkled also with light but evident punctules); by its eyes being small but prominent; by its prothorax being a trifle narrowed posteriorly and rather mesially produced in front; and by its antennæ (which are *exceedingly* short and moniliform) being, together with the legs, testaceous.

(Subfam. 5. OXYTELIDES.)

Genus 14. OXYTELUS.

Gravenhorst, *Col. Micropt.* 101 (1802).

§ I. *Antennis art^{is} 8 ulterioribus gradatim incrassatis.*

32. *Oxytelus sculptus*.

O. linearis, nitidus, niger elytris plus minus piceo-testaceis; capite

subtriangulâri, confuse punctato, postice in medio distincte canaliculato, clypeo impunctato sed grosse alutaceo opaco et antice fere immarginato, oculis maximis, prominentibus; prothorace transverso-subquadrato postice paulum angustiore, substriguloso-punctato, in disco profunde trisulcato (sulcis externis subcurvatis); elytris dense punctato-strigulosis; abdomine fere impunctato; antennis longiusculis, fusco-nigris, art^{is} 3 basalibus rufo-ferrugineis; pedibus testaceis.

Long. corp. lin. $1\frac{1}{2}$ –2.

Oxytelus sculptus, Grav., *Mon.* 191 (1806).

— —, Woll., *Ins. Mad.* 607 (1854).

— —, *Id.*, *Col. Atl.* 516 (1865).

— —, Crotch, in Godm. *Azor.* 93 (1870).

Habitat in intermediis editioribusque (præsertim illis), inter quisquilias in humidis parce occurrens.

The common European *O. sculptus* has become naturalized at St. Helena, in like manner as it has in the Azorean, Madeiran, and Canarian archipelagos. Nevertheless the only two spots in which I happened to observe it are Plantation and Cason's, at the former of which I met with a tolerable number of examples amongst garden-refuse. At first sight it very closely resembles the *O. alutaceifrons*, which is so universal throughout the island; nevertheless it is, on the average, a little larger, its head (which is wider behind) is less coarsely and less densely punctured, and has the short central channel more distinct, its eyes are *very* much larger, its clypeus is unmarginated in front, and its antennæ are not only longer but have their three basal joints more brightly rufo-ferruginous.

33. *Oxytelus alutaceifrons*.

O. præcedenti similis, sed subminor, oculis multo minoribus, antennisque conspicue brevioribus; capite postice sensim angustiore, rugosius densiusque punctato, et canaliculâ obscuriore impresso, clypeo antice evidenter marginato, antennis ad basin minus conspicue dilutis.

Long. corp. lin. $1\frac{1}{2}$ –vix 2.

Obs.—Species *O. piceo*, Grav., affinis; sed oculis minoribus, clypeo omnino impunctato depressiore et magis opaco, prothorace postice sensim magis angustato, angulis posticis subexstanter rectoribus necnon sulcis externis profundioribus, elytrisque subminoribus, præcipue differt.

Oxytelus alutaceifrons, Woll., *Ann. Nat. Hist.* viii. 410 (1871).

— —, Melliss, *St. Hel.* 163 (1875).

Habitat sub stercore bovino et equino, necnon inter quisquilias, in intermediis editioribusque insulæ; vulgaris.

This may be regarded as the universal *Oxytelus* of St. Helena, though, as we did not collect to any great extent in the more arid districts adjoining the coast, I am unable to say whether it descends much below the intermediate altitudes. From about the level, however, of Plantation (some 1800 feet above the sea) to the extreme summit of the central ridge it occurs, amongst decaying vegetable refuse and the droppings of cattle, almost everywhere—my own specimens being chiefly from Plantation, West Lodge, Cason's, and the vicinity of Diana's Peak; and it was captured likewise by Mr. Gray.

In size and general aspect the *O. alutaceifrons* very closely resembles the European *O. piceus*, Grav., which has been naturalized in the Madeiran and Canarian groups; nevertheless its eyes are conspicuously smaller, its clypeus is more decidedly unpunctured, as well as flatter and more opaque, its prothorax is a little narrower behind and has the posterior angles (though not exactly prominent) more strictly right angles, and the outer grooves perhaps a trifle deeper, and its elytra are appreciably shorter or less developed.

§ II. *Antennarum art^u 3 (vix distincte 5 vel 6) ulterioribus incrassatis.*

34. *Oxytelus nitidifrons.*

O. linearis, nitidus; capite nigro, prothorace elytrisque rufo-ferrugineis, his postice obscurioribus; capite prothoraceque transversis, confuse et dense rugoso-punctatis, illo transverso-subquadrato, postice convexo et in medio canaliculâ brevissimâ obscurâ impresso, clypeo nitidissimo fere impunctato convexo transverso antice truncato et immarginato, oculis parvis, mandibulis elongatis porrectis rufo-piceis; prothorace brevissimo, postice vix angustiore, in disco confuse trisulcato (sulcis postice subevanescentibus); elytris brevibus, dense punctato-strigulosis; abdomine fere impunctato, piceo sed antice subtestaceo-dilutiore; antennis pedibusque gracilibus, illis fusco-nigris sed basin versus clare rufo-ferrugineis, his testaceis.

Long. corp. lin. 1-1½.

Oxytelus nitidifrons, Woll., *Ann. Nat. Hist.* viii. 411 (1871).

— —, Melliss, *St. Hel.* 163 (1875).

Habitat inter quisquilias in intermediis, necnon parcius sub cortice

Compositarum arborescentium laxo putrido in editioribus ; passim.

I believe this very remarkable little *Oxytelus* to be a true native of the island—its claim for being regarded as aboriginal seeming to me to be greater than those of even the still more universal *O. alutaceifrons*. It is only at intermediate and lofty altitudes that I observed it, and nowhere in any great abundance. At Plantation, however, it is sufficiently common (where it occurs under garden-refuse and cut grass); and on the high central ridge I met with it sparingly beneath the damp and rotting bark of the old cabbage-trees.

Apart from its much smaller size and more variegated surface—the head being black, and the prothorax and elytra bright rufo-ferruginous (though the latter are gradually more and more obscured posteriorly), whilst the abdomen is piceous but more diluted towards the base—the *O. nitidifrons* may be recognized by its head, prothorax, and elytra being each of them rather unusually short and transverse, the prothorax especially being much abbreviated and hardly (if at all) narrowed behind, by its clypeus being highly polished, nearly unsculptured, transverse, and considerably truncated (as well as unmarginated) in front, by its eyes being small, and consequently very anterior in position, and by its limbs being slender. Its antennæ indeed (which are dark, but brightly rufo-ferruginous at the base) are not only less incrassated towards their apex, but have a smaller number of joints distinctly thickened—the terminal three being alone conspicuously widened (for the preceding two are scarcely broader than the basal ones). Its mandibles also are somewhat longer and more porrect than in the majority of the *Oxyteli*, though less produced than those of the South-American *O. insignitus*, Erich., which has become naturalized in the island of St. Thomas and at Madeira.

Genus 15. TROGOPHLEUS.

Mannerheim, *Brachél.* 49 (1831).

35. *Trogophleus corticinus*.

T. minutus, angustulo-linearis, niger, ubique densissime et subtilissime punctulatus pubesque cinerea vestitus; capite magno, rotundato-subquadrato, in fronte breviter longitudinaliter bifoveolato, oculis sat parvis sed prominulis, a basi parum remotis; prothorace sub-

cordato (postice sensim angustato), in disco posticopaulum inæquali, sc. obsolete bicanaliculato (canaliculis extus curvatis sed vix sub-interruptis); elytris striâ suturali obtusâ (postice subevanescente) leviter notatis; antennis palpisque fusco-nigrescentibus, ad basin vix dilutioribus; pedibus piceo-testaceis, femoribus obscurioribus. Long. corp. lin. circa 1.

Oxytelus corticinus, Grav., *Mon.* 192 (1806).

Trogophlœus corticinus, Erich., *Gen. et Spec. Staph.* 809 (1839).

— *nanus*, Woll., *Ins. Mad.* 611 (1854).

— *corticinus*, Id., *Col. Atl.* 519 (1865).

— —, Crotch, in *Godm. Azor.* 94 (1870).

Habitat in intermediis humidis lutosi, rarissimus; a meipso ad Plantationem bis captus.

Two examples of this very minute and insignificant European *Trogophlœus*, which occurs likewise in the Azorean, Madeiran, and Canarian archipelagos, embody all that I have seen of the species in St. Helena. They were both of them captured by myself at Plantation,—one beneath garden-refuse, and the other by treading out the mud in a marshy spot. It is the smallest of the Staphylinids which have been met with in the island; and, in addition to this, its uniformly black surface, which is most minutely and densely punctulated all over, as well as clothed with a cinereous or whitish pubescence, in conjunction with its somewhat small but prominent eyes and the slight inequalities on the hinder disk of its prothorax (which may be said to be a generic feature of the *Trogophlœi*), will serve to distinguish it from every thing else with which we have here to do. Its antennæ are almost wholly black (the base being but very faintly diluted in hue); and its legs are piceo-testaceous,—the femora, however, being well-nigh entirely piceous.

Sectio 5. NECROPHAGA.

Fam. 5. NITIDULIDÆ.

Genus 16. CARPOPHILUS.

Stephens, *Ill. Brit. Ent.* iii. 50 (1830).

36. *Carpophilus hemipterus*.

C. ovalis, *latiusculus*, dense sed haud profunde punctatus, niger elytris læte flavo-maculatis, subopacus, pube parvâ subcinereâ

dense vestitus; prothorace magno, convexo, subquadrato, utrinque versus angulos posticos late sed obsolete impresso; coleopteris valde abbreviatis, postice triangulariter truncatis, ad latera subrotundatis, utrinque maculis duâbus subrotundatis flavo-testaceis (unâ sc. ad humeros et alterâ majore ad angulos apicales internos positâ) læte decoratis; antennis pedibusque rufo-testaceis, capitulo magno, picescentiore.

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

Dermestes hemipterus, Linn., *Syst. Nat.* ii, 567 (1767).

Carpophilus hemipterus, Murray, *Mon. Nitid.* 362 (1864).

— —, Woll., *Col. Atl.* 108 (1865).

— —, *Id.*, *Col. Hesp.* 58 (1867).

— —, *Id.*, *Ann. Nat. Hist.* viii, 399 (1871).

— —, Melliss, *St. Hel.* 139 (1875).

Habitat in mercatorum repositoriis; certe ex alienis introductus.

I did not happen to meet with this introduced and well-nigh cosmopolitan insect at St. Helena, having had but little leisure for the examination of the mere houses and stores; but a few examples of it were among the *collectanea* of Mr. Melliss, who doubtless must have obtained them either at Jamestown or else amongst culinary substances which had been brought thence. Although apparently established in the island (as it has become in the Madeiran, Canarian, and Cape-Verde archipelagos), I need scarcely add that it has no connexion whatever with the real fauna of St. Helena.

The rather broad and shortly-oval outline of the *C. hemipterus*, added to the two bright yellowish-testaceous spots (one of which is placed at the shoulder, and the other, which is larger, at the inner apical angle) with which each of its greatly-abbreviated elytra is adorned, in conjunction with its otherwise dark but densely pubescent, subopaque, closely punctured surface, and its rufo-testaceous limbs (the rounded and much developed antennal club being alone picescent), will sufficiently distinguish it from every thing else which concerns us in this volume.

37. *Carpophilus dimidiatus*.

C. oblongus, angustior, parcius ac multo profundius punctatus, niger elytris subdilutioribus et obsolete subrufulo oblique nebulosis, subnitidus, pube grossâ fulvo-cinereâ parce vestitus; prothorace magno, convexo, transverso-subquadrato, ad latera subdistinctius marginato et paululum minus rotundato; coleopteris abbreviatis, postice subtriangulariter truncatis, ad latera subparallelis (angulis humeralibus fere rectis), sensim piceo-subdilutioribus et plagâ

magnâ obsoletâ suffusâ valde obliquâ paulum rufescentiore utrinque plus minus evidenter nebulosis; antennis pedibusque piceo-testaceis, capitulo picescentiore, tibiis sensim minus dilatatis, tarsis brevioribus.

Long. corp. lin. 1-1½.

Nitidula dimidiata, *Fab., Ent. Syst.* i. 261 (1792).

Carpophilus auropilosus, *Woll., Ins. Mad.* 117 (1854)

— *dimidiatus*, *Murray, Mon. Nitid.* 379 (1864).

— —, *Woll., Col. Atl.* 107 (1865).

— —, *Id., Col. Hesp.* 59 (1867).

— —, *Id., Ann. Nat. Hist.* viii. 399 (1871).

— —, *Melliss, St. Hel.* 139 (1875).

Habitat in locis similibus ac præcedens; necnon (rarius) etiam sub cortice arborum arido laxo in cultis. Certe introductus.

The present *Carpophilus* is almost equally cosmopolitan with the *C. hemipterus*,—it being quite as subject to accidental introduction, along with dried fruits and various other stores, throughout the civilized world. Although rare at St. Helena, it would appear (so far at least as my own observations are concerned) to have established itself more completely than the *hemipterus*,—inasmuch as it is to be met with occasionally even beneath the dead and loosened bark of trees in cultivated spots. Under such circumstances I captured it sparingly near West Lodge, within the former garden of a ruined cottage. On account of its constant liability to accidental transmission, it is a species of a widely acquired range, and one which has become naturalized in the Azorean, Madeiran, Canarian, and Cape-Verde archipelagos,—in all of which it is extremely partial, along with the *C. mutilatus*, *Erich.*, to decaying figs and oranges.

The *C. dimidiatus* is rather narrower, straighter, and more oblong than the *hemipterus*, as well as more shining, more remotely and much more deeply punctured, and sparingly clothed with a coarser and more golden pubescence; moreover its elytra (instead of being adorned with the four brightly testaceous spots of that species) are nearly black, though more or less suffused with a large and often very indistinct subrufescent dash, extending obliquely from either shoulder towards the middle of the suture,—so as to leave a triangular space about the scutellum which, like the region towards the outer apical angle (and like the head and prothorax), is comparatively dark. Its prothorax also, which is more evidently margined at the sides, appears to have no indication (or scarcely any) of the wide but very shallow impression which is usually traceable towards

the hinder angles in the *C. hemipterus*; its elytra are more rectangular at the shoulders; its limbs are not quite so pale; its tibiæ are just perceptibly slenderer; and its feet are less elongate*.

Fam. 6. MONOTOMIDÆ.

Genus 17. MONOTOMA.

Herbst, *Natursyst.* v. (1793).

38. *Monotoma spinicollis*.

M. nigro-picea (*immatura ferruginea*), fere opaca, rugosa, parce cinereo-pubescent; capite prothoraceque profunde punctatis, illo longiusculo oculis ante basin sitis, hâc subconico sed ad latera subrotundato angulis anticis in spinam magnam exstantem productis, postice in medio bifoveolato; elytris ad humeros sæpius (interdum etiam læte) subpicescentioribus, profunde seriatim punctatis; antennis pedibusque robustis, clare rufo-piceis.

Long. corp. lin. circa $1\frac{1}{2}$.

Monotoma spinicollis, Aubé, *Ann. Soc. Ent. de France*, 463 (1837).

— spinifera, Woll., *Cat. Mad. Col.* 67 (1857).

— spinicollis, Id., *Col. Atl.* 118 (1865).

— —, Id., *Col. Hesp.* 60 (1867).

— —, Crotch, in *Godm. Azor.* 68 (1870).

Habitat inter quisquilias in cultis intermediis, ad Plantation abundans.

The widely-spread European *M. spinicollis*, which has established itself in the Azorean, Madeiran, Canarian, and Cape-Verde archipelagos, and which was found by Mr. Gray at the Cape of Good Hope, has in like manner become naturalized at St. Helena,—where it is common beneath decaying garden-refuse, and cut grass, at intermediate altitudes. Under such circumstances I met with it abundantly at Plantation.

The powerful, outwardly-directed (or spiniform) anterior prothoracic angles, and extremely coarse roughened sculpture, of this

* The *C. dimidiatus* is very closely allied to the *C. mutilatus*, Erich., a species equally liable to importation, and which has become established in the Azorean, Madeiran, and Cape-Verde groups; but it is, on the average, a little smaller, narrower, more shining, and more deeply punctured; its colour is very much darker (that species being almost wholly ferruginous); its elytra are relatively a trifle shorter, and just perceptibly more convex; and its prothorax has the posterior angles somewhat more sharply defined, and is apparently free from the shallow, rounded impression which (although indistinct) is more or less traceable, in that species and in the *C. hemipterus*, on either side behind.

species, added to its nearly opaque and dark-piceous surface, and the fact of its eyes being situated at an *appreciable* (though short) distance from the extreme base of its head, will sufficiently distinguish it as a *Monotoma* (a genus in which the antennal club is composed of *apparently* but a single joint, and the elytra are shortened posteriorly).

39. *Monotoma picipes*.

M. nigro-picea (*immatura ferruginea*), opaca, dense rugulosa, parce et brevissime cinereo-pubescent; capite prothoraceque minus profunde punctatis (punctis multo minoribus), illo triangulari oculis fere ad basin ipsissimam sitis, hœc ad latera subrecto angulis anticis in spinam minorem ac minus exstantem productis, postice in medio leviter bifoveolato; elytris paulo fuscrescentioribus, minus profunde sed densius seriatim punctatis; antennis pedibusque vix minus robustis, clare rufo-piceis.

Long. corp. lin. 1-1 $\frac{1}{3}$.

Monotoma picipes, *Hbst., Käf.* v. 24 (1793).

— —, *Aubé, Ann. Soc. Ent. de France*, vi. 458 (1837).

— congener, *Woll., Cat. Mad. Col.* 68 (1857).

— *picipes*, *Id., Col. Atl.* 118 (1865).

Habitat in locis similibus ac præcedens, una cum illâ sæpius commixta.

Likewise a widely distributed European insect, and one which has been naturalized in the Madeiran and Canarian groups; but, although the most abundant in England of all the *Monotomas*, it appears to be less common at St. Helena (as indeed it is both in the Madeiras and Canaries) than the preceding species. The two, however, are usually taken in company, beneath decaying garden-refuse at intermediate altitudes,—the examples now before me having been captured by myself at Plantation.

The *M. picipes* is a trifle more opaque and finely sculptured than the *spinipectus*; and its elytra are for the most part just appreciably browner (and *uniformly* so, being less evidently subrufescent about the shoulders); its head is more triangular (or truncated at the base), having the eyes more strictly *posterior* in position and abutting on the hinder rim; its prothorax is somewhat straighter, or less sinuated, at the sides, with the punctures very much smaller and lighter, and with the anterior angles more porrect, or less outwardly prominent; its elytra are more thickly and less coarsely angulose; and its legs are, if any thing, not *quite* so robust.

Fam. 7. TROGOSITIDÆ.

Genus 18. TROGOSITA.

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

40. *Trigosita mauritanica*.

T. angustula, elongata, depressa, subnitida, picea ; capite prothoraceque parce sed argute punctatis, illo antice depresso, hôte brevi, lunato-quadrato, angulis anticis grosse porrectis, posticis acute prominulis ; elytris subparallelo-oblongis basi recte truncatis, punctulato- aut crenulato-striatis, interstitiis minutissime seriatim punctulatis ac transversim rugulosis ; antennis pedibusque compressis, robustis.

Long. corp. lin. $3\frac{1}{4}$ –4.

Tenebrio mauritanicus, Linn., *Syst. Nat.* ii. 674 (1767).

Trogosita mauritanica, Woll., *Col. Atl.* 116 (1865).

— —, *Id.*, *Col. Hesp.* 66 (1867).

— —, *Melliss, St. Hel.* 140 (1875).

Habitat in domibus, mercatorumque repositoriis, ex alienis certe introducta.

The cosmopolitan *T. mauritanica* has become established in the houses and stores of St. Helena, as it has in the islands of the more northern archipelagos and indeed throughout a great part of the civilized world. It is common occasionally at Jamestown ; and I have also met with it amongst farinaceous substances at Plantation.

Fam. 8. CUCUJIDÆ.

Genus 19. LÆMOPHLÆUS.

(Dejean) Casteln., *Hist. Nat.* ii. 385 (1840).

§ I. *Antennæ filiformes ; in maribus longissimæ.*

41. *Læmophlæus pusillus*.

L. breviter linearis, depressus, rufo-ferrugineus, nitidus sed minute fulvo-cinereo-sericeus ; capite prothoraceque (lineâ laterali instructis) minute punctulatis, hôte subquadrato, angulis ipsissimis posticis rectiusculis, ad basin (inter lineolas) carinulâ subtuberculi-formi transversâ instructo ; elytris vix pallidioribus, minutissime seriatim punctulatis, interstitiis (præcipue alternis) subelevatis, sublaterali distinctius costiformi.

Mas capite paulum majore, antennis longissimis.

Long. corp. lin. vix 1.

Cucujus minutus, Oliv. [nec Kugel. 1794], *Ent.* iv. bis, 8, 9 (1795).

— *pusillus*, Schön., *Syn. Ins.* iii. 55 (1817).

Læmophlœus pusillus, Erich., *Ins. Deutsch.* iii. 321 (1846).

— —, Woll., *Col. Atl.* 131 (1865).

— —, Id., *Ann. Nat. Hist.* iv. 307 (1869).

— —, Melliss, *St. Hel.* 140 (1875).

Habitat in domibus repositoriisque insulæ ; certe introductus.

A single example of this minute and almost cosmopolitan *Læmophlœus* was taken by Mr. Melliss ; and a second (a male) was met with subsequently by myself. The species is of course a mere importation into the island, along with articles of commerce and merchandise, and has no connexion whatever with the true fauna ; nevertheless, as is the case with it in the Madeiran and Canarian archipelagos, it may perhaps have established itself in the warehouses and stores. It may be known from the following species by being relatively a trifle broader and shorter, by its prothorax being a little more quadrate, and by the antennæ of its male sex being not only very much more lengthened but with their joints (instead of short and globose) gradually elongated and obconical.

§ II. *Antennæ moniliformes ; in utroque sexu magis æquales, nec in maribus longissimæ.*

42. *Læmophlœus carinulatus*, n. sp.

L. linearis, angustulus, depressus, rufo-ferrugineus, nitidus sed minute fulvo-cinereo-sericeus ; capite prothoraceque (lineâ laterali instructis) minute punctulatis, hinc subquadrato postice paulo angustiore, angulis ipsissimis posticis exstanti-acutiusculis, in disco depresso, ad basin (inter lineolas) carinulâ argutâ acutâ transversâ instructo ; elytris depressis, subpallidioribus, minutissime seriatim punctulatis, interstitiis (præcipue alternis) subelevatis, sublaterali distinctius costiformi.

Mas capite majore et prothorace antice sublatiore.

Long. corp. lin. $\frac{7}{8}$ —1.

Habitat in inferioribus intermediisque, a meipso ad Jamestown, Plantation, et Thompson's Wood parce repertus.

The present species (although equally linear) is relatively a little narrower and longer than the last one ; both its prothorax and elytra are a trifle more depressed on their respective disks, the former having the hinder angles rather more outwardly-prominent and acute, and the short transverse keel (in the centre of the base) somewhat thinner and less tuberculiform ; and its antennæ are not

only *moniliform* (their joints being *rounded* instead of obconic) but likewise shorter,—those of the male sex being merely a little more elongated than in the female. It has a good deal the appearance at first sight of the *L. clavicollis*, which is so general throughout the more northern archipelagos; but it is proportionally a little larger, broader, and more shining, its prothorax is less narrowed posteriorly, with the hinder angles acutely prominent instead of being rounded-off, and its antennæ are thicker.

The *L. carinulatus* is probably an introduced insect at St. Helena,—my few examples (seven in number) having been captured by myself in Jamestown, at Plantation, and in Thompson's Wood.

Genus 20. CRYPTAMORPHA.

Wollaston, *Ins. Mad.* 156 (1854).

43. *Cryptamorpha musæ*.

C. elongato-linearis, angusta, subdepressa, subopaca, grosse fulvo-cinereo-pubescent; capite prothoraceque rufo-ferrugineis, illo subtriangulâri utrinque foveolato et in fronte convexo, hâc elongato-subquadrato (postice subangustiore), ad utrumque latus minute crenulato et in disco subinæquali; elytris rufo-testaceis sed pone scutellum maculâ et pone medium fasciâ transversâ dentatâ abbreviatâ (interdum lineâ suturali connexis) nigropictis, grosse et dense striato-punctatis; antennis pedibusque crassis, illis rufo-ferrugineis, articulis subapicalibus nigris, his testaceis.

Long. corp. lin. $1\frac{2}{3}$ –2.

Cryptamorpha musæ, Woll., *l. c.* 157, t. 4. f. 1 (1854).

— — —, *Id.*, *Col. Atl.* 133 (1865).

— — —, *Id.*, *Ann. Nat. Hist.* iv. 307 (1869).

— — —, *Melliss, St. Hel.* 140 (1875).

Habitat inter quisquilias, et sub ligno antiquo marcido, præcipue in intermediis, passim.

The elegantly-marked *C. musæ* (which has the head and prothorax rufo-ferruginous, and the elytra rufo-testaceous but ornamented with a black subscutellary blotch and a dentate postmesial abbreviated transverse fascia, which are sometimes distinct but more often united by a suffused sutural band) is a most abundant insect in the intermediate and rather elevated districts of St. Helena, occurring beneath decayed vegetable refuse and under pieces of damp wood almost everywhere,—though more particularly in the gardens and other cultivated grounds. It has all the appearance of being

indigenous; nevertheless I have little doubt that it must have been originally introduced into the island, and that it has since completely established itself. In Madeira, which is the only other country in which I have ever observed the species, it resides almost exclusively beneath the outer fibre of the stems of bananas, though I have like-met with it *sparingly* beneath that of a large *Strelitzia*; but at St. Helena I did not notice this peculiarity in its mode of life, though Mr. Melliss mentions his having found it amongst old banana-trees at the Hermitage. Dr. Sharp informs me that it has been taken by Mr. Blackburn even at the Sandwich Islands.

The *C. musæ* (which is elongated, narrow, pubescent, and sub-depressed, and the limbs of which are thick and pale, but with the subapical joints of the antennæ curiously darkened) is extremely common about Plantation; and I have also taken it at West Lodge, in Thompson's Wood, &c.; and it has frequently been captured by Mr. P. Whitehead at Woodcot.

Genus 21. **SILVANUS.**

Latreille, *Gen. Crust. et Ins.* iii. 19 (1807).

44. **Silvanus surinamensis.**

S. elongato-linearis, angustus, aut nigro- aut fusco-piceus, subopacus, grosse fulvo-pubescent; capite prothoraceque rugose granulatis, illo magno triangulari quadrato, hinc in disco longitudinaliter 3-carinato necnon ad utrumque latus dentibus 6 (primo et ultimo magis exstantibus) instructo; elytris densissime punctato-striatis, interstitiis alternis leviter elevatis; antennis pedibusque crassis, his rufo-piceis, femoribus posticis denticulo minutissimo subtus armatis.

Long. corp. lin circa 1.

Dermestes surinamensis, *Linn. Syst. Nat.* ii. 565 (1767).

Silvanus surinamensis, *Woll. Col. Atl.* 135 (1865).

— —, *Id.*, *Coll. Hesp.* 69 (1867).

— —, *Id.*, *Ann. Nat. Hist.* viii. 399 (1871).

— —, *Melliss, St. Hel.* 140 (1875).

Habitat in domibus granariisque insulæ, certe ex alienis introductus.

As in the more northern archipelagos, the cosmopolitan *S. surinamensis* has become established in the houses and granaries of St. Helena. It is often abundant at Jamestown; and I have also met with it at Plantation.

Fam. 9. CRYPTOPHAGIDÆ.

Genus 22. CRYPTOPHAGUS.

Herbst, *Käf.* iv. 172 (1792).45. *Cryptophagus badius*.

C. oblongus, convexus, brunneo-ferrugineus, ubique dense punctatus pubesque subdemissâ subcinereâ vestitus; capite prothoraceque vix obscurioribus, hôc convexo, transverso-subquadrato, angulis anticis elongate et oblique incrassatis, ad latera paululum subæqualiter rotundato, in medio denticulo minuto acutissimo armato necnon inde ad basin æqualiter serrato; antennis pedibusque crassis, longiusculis, illis obscure ferrugineis, his obscure testaceis.

Long. corp. lin. $1\frac{1}{4}$.

Cryptophagus badius, Sturm, *Deutsch. Fna*, xvi. 96, t. 317. f. A (1845).

— —, Redt., *Fna Austr.* 191 (1849).

— —, Woll., *Ann. Nat. Hist.* viii. 400 (1871).

— —, Melliss, *St. Hel.* 141 (1875).

Habitat in domibus (?), introductus; semel deprehensus a Dom. Melliss.

A single specimen of the common European *C. badius* was taken by Mr. Melliss at St. Helena; but I did not myself observe the species during our six months' sojourn in the island. It is doubtless, however, a mere importation from more northern latitudes, if indeed it be truly established at all, and must clearly have been met with in or about, the houses or stores.

The *C. badius* is the largest of the three *Cryptophagi* which have hitherto been found at St. Helena; and it may be further recognized from the *C. affinis* (with which alone it could be confounded) by being of a slightly darker hue and altogether more robust, by the pubescence of its elytra being less erect, by its limbs being relatively a little longer, and by the sides of its prothorax having both the central denticle and anterior ridge-like prominence, as well as the posterior crenulations, a trifle more developed.

46. *Cryptophagus affinis*.

C. oblongus, convexus, ferrugineus, subnitidus, ubique dense punctatus pubesque suberectâ subcinereâ (præsertim in elytris) vestitus; capite prothoraceque paulum obscurioribus, hôc transverso-subquadrato, angulis anticis elongate et oblique incrassatis, ad latera paululum subæqualiter rotundato, in medio denticulo minutissimo

acutissimo armato necnon inde ad basin minute æqualiter serrato;
antennis crassis, obscure ferrugineis; pedibus obscure testaceis.
Long. corp. lin. 1—vix $1\frac{1}{4}$.

Cryptophagus affinis, Sturm, *Deutsch. Fna*, xvi. 79, t. 314. f. C (1845).

———, Woll., *Col. Atl.* 137 (1865).

———, *Id.*, *Ann. Nat. Hist.* iv. 307 (1869).

———, Crotch, in *Godm. Azor.* 69 (1870).

———, Melliss, *St. Hel.* 141 (1875).

Habitat in domibus repositoriisque insulæ; ex Europâ certe invectus.

A few examples of the European *C. affinis* were captured by myself at Plantation, in and about the house; and a single other one had been previously met with by Mr. Melliss,—though in what exact locality I have no means of knowing. There cannot, of course, be the slightest doubt that the species is a mere accidental importation into the island from more northern latitudes, and that it has no connexion whatever with the original fauna of St. Helena. It has, in like manner, established itself in the Azorean, Madeiran, and Canarian Groups.

As compared with the *C. gracilipes*, it may be sufficient to state that the *C. affinis* may be recognized by the *central* position of the small and very acute denticle with which the sides of its prothorax are armed,—the space between the denticle and the base being minutely but evenly crenulated. The edges of its prothorax, although very slightly so, are about *equally* rounded before and behind; and its elytra (which are somewhat straightened in outline) are rather densely clothed with a subcinereous pubescence,—a portion of which is decumbent, and a portion longer and more erect.

47. *Cryptophagus gracilipes*.

C. oblongo-ovalis, convexus, ferrugineus, subnitidus, ubique dense et profunde punctatus pubesque elongatâ suberectâ cinereâ (præsertim in elytris) vestitus; capite prothoraceque paulum obscurioribus, hôc brevi, transverso-subquadrato, angulis anticis elongate et oblique incrassatis, ad latera subsinuato, fere omnino simplici (sed sub lente minutissime et obsoletissime subserrato); antennis pedibusque longiusculis, gracilibus, obscure testaceis.

Long. corp. lin. $\frac{3}{4}$ — $\frac{7}{8}$.

Cryptophagus gracilipes, Woll., *Ann. Nat. Hist.* viii. 400 (1871).

———, Melliss, *St. Hel.* 141 (1875).

Habitat in herbidis et sub quisquiliis, in intermediis editioribusque insulæ; hinc inde vulgatissimus.

This little species is the universal *Cryptophagus* of St. Helena, at intermediate and lofty altitudes; and, though a form which is *scarcely* distinct from it was taken by Mr. Gray at the Cape of Good Hope, I think that it is not unlikely to have been an aboriginal member of the fauna,—representing the *C. hesperius* of the Canarian archipelago and the common *C. vini* of Europe. Although ascending to the central ridge (for I have met with it at Cason's, and even in the vicinity of Diana's Peak), it is more particularly in the intermediate districts that it abounds,—swarming beneath garden-refuse and cut grass at Plantation, West Lodge, Thompson's Wood, Peak Gut, and elsewhere.

In addition to its small size, as compared with the two preceding species, the *C. gracilipes* may readily be distinguished by its extremely coarsely punctured surface (for a *Cryptophagus*), and for the very long, soft, and suberect whitish hairs with which it is, particularly on the elytra, though not very densely, clothed. Its elytra are rather more oval, or less straightened in outline, than those of the *affinis*; its prothorax (which is short and transverse) has the anterior angles quite as much incrassated into an oblique ridge-like process, but the lateral edges thence to the base, although more *sinuate* (or less *evenly rounded*), are destitute of the central denticle which is there so conspicuous,—being in fact *well-nigh* simple; and its limbs, which are dusky-testaceous, are remarkably slender.

Fam. 10. LATRIDIIDÆ.

Genus 23. ANOMMATUS.

Wesmael, *Bull. Acad. Bruxell.* ii. 339 (1836).

48. *Anommatus 12-striatus*.

A. angustulus, subcylindricus, nitidus, calvus, infusate testaceus; capite sat grosse sed leviter et confuse punctato, oculis nullis; prothorace elongato-quadrato postice vix angustiore, valde profunde, grossissime, et parce punctato (punctis subseriatim dispositis); elytris subparallelis, profunde striato-punctatis, striis postice subevanescentibus; antennis (abrupte clavatis) pedibusque (compressis) brevibus, testaceis.

Long. corp. lin. $\frac{3}{4}$ — $\frac{7}{8}$.

Lyctus 12-striatus, Müll., *Germ. Mag.* iv. 190 (1821).

Anommatus terricola, Wesm., *l. c.* 339 (1836).

— *12-striatus*, Woll., *Col. Atl.* 146 (1865).

Habitat in cultis intermediis insulæ; sub truncis arborum vetustis

emortuis humi jacentibus, ad Plantation et West Lodge, a meipso parce deprehensus.

The minute European *A. 12-striatus*, which occurs sparingly in the Madeiran archipelago, is found (though quite as sparingly) in the intermediate, cultivated districts of St. Helena,—where we may be pretty sure that it must have been originally introduced, perhaps along with consignments of plants. I have taken it beneath the fallen trunks of old Spanish-chestnut trees at Plantation, and under precisely similar circumstances at West Lodge.

Apart from its diminutive bulk and its total want of eyes, the *A. 12-striatus* may be known from every thing else with which we are here concerned by its narrow and subcylindrical form, its glossy, bald, testaceous surface, its shortened limbs (the antennæ of which are powerfully clavate, and the legs compressed), and by the anomalously large and coarse punctures of its prothorax.

Genus 24. CORTICARIA.

Marsham, *Ent. Brit.* i. 106 (1802).

49. *Corticaria elongata*.

C. minutissima, oblonga, rufo-ferruginea, subnitida, breviter fulvo-cinereo-pubescent; capite prothoraceque minutissime (vix perspicue) punctulatis, hâc subrotundato, ad latera minutissime crenulato, postice in medio foveâ rotundatâ punctiformi profunde impresso; elytris parallelis, vix clarioribus, minute punctulato-striatis, interstitiis vix convexis; antennis pedibusque testaceis.

Long. corp. lin. $\frac{5}{8}$.

Latridius elongatus, Gyll., *Ins. Suec.* iv. 130 (1827).

Corticaria elongata, Steph., *Illus. Brit. Ent.* iii. 108 (1830).

— —, Mannerh., *Germ. Zeitsch.* v. 44 (1844).

— —, Redt., *Fna Austr.* 210 (1849).

— —, Waterh., *Trans. Ent. Soc. Lond.* v. 140 (1859).

Habitat inter quisquilias in hortis, sed præcipue sub recremento ad basin acervorum fœni sparso, in intermediis ac (minus copiose) in editioribus.

The diminutive *C. elongata*, Gyll., which is so common throughout Europe, but which has not hitherto been detected in any of these Atlantic archipelagos, abounds in the intermediate districts of St. Helena, where in all probability it has become accidentally naturalized from England. It is usually to be met with amongst garden-refuse and under cut grass, and more particularly beneath

the rubbish which has accumulated around the base of haystacks. In such localities I have taken it abundantly at Plantation, and more sparingly even on the central ridge.

Apart from its small size and rather parallel oblong outline, the present *Corticaria* may be known by its pale rufo-ferruginous hue, its very slightly shining pubescent surface, and by the deep rounded fovea in the centre of its prothorax behind. At first sight it closely resembles the *C. fagi* of Madeira; but that species has the head and prothorax very much more strongly punctured,—the latter moreover being a trifle narrower posteriorly (or less straightened at the sides), with the edges more coarsely crenulated, and with the central fovea wider and deeper. Added to which, there are *generally* traces of an extra fovea on either side near to the basal angles; and the elytra are not *quite* so parallel.

Genus 25. LATRIDIDIUS.

Herbst, *Käf.* v. 8 (1793).

§ 1. *Antennarum clava 3-articulata.*

50. *Latridius nodifer.*

L. elongato-ovatus, nigro- aut fusco-piceus (*immaturus* ferrugineus), ubique inæqualis vel nodosus, fere opacus; capite prothoraceque rugulosis, illo antice leviter ac breviter bicostulato, hôte angusto, ante basin profunde transversim constricto, in disco argute longitudinaliter bicostato; elytris in medio rotundato-ampliatis, valde inæqualibus, grosse et dense striato-punctatis (punctis magnis), interstitiis alternis costato-elevatis, pone medium nodos 4 (internos majores, obtusiores, rufescentiores) efficientibus; antennis brevibus, gracilibus, piceo-testaceis clavâ obscuriore; pedibus piceo-testaceis.

Long. corp. lin. circa 1.

Latridius nodifer, *Westw., Int. to Ent.* i. 155, pl. 13. f. 23 (1839).

— —, *Steph., Man. Brit. Col.* 129 (1839).

— —, *Crotch, in Godm. Azor.* 70 (1870).

— —, *Woll., Trans. Ent. Soc. Lond.* 253 (1871).

Habitat in intermediis editioribusque (præsertim illis) insulæ, inter quisquillas vulgaris.

This curious little nodose *Latridius*, which until within the last few years had been observed only in England, but has now been detected in various parts of the continent of Europe, and which has established itself in the Azorean and Madeiran archipelagos, is

extremely common in the intermediate districts of St. Helena, ascending even to the central ridge. It swarms at Plantation, principally amongst garden-refuse; and I have also met with it at West Lodge, and sparingly towards Diana's Peak. In all probability it was originally introduced into the island, perhaps along with consignments of plants.

The very nodose elytra of this singular species (which are coarsely striate-punctate, and have their alternate interstices greatly elevated shaping out *behind the middle* four nodules—of which the inner ones are the most raised, obtuse, and subrufescent), added to its rather narrow but transversely-constricted prothorax, which has two sharp thread-like costæ down its disk, will more than suffice to characterize it.

§ 2. *Antennarum clava 2-articulata.* (Subg. **Latridulus**, Woll.)

51. **Latridius approximatus**, n. sp.

L. elongato-ovatus, angustulus, aut ferrugineus aut piceus, fere opacus; capite prothoraceque rugulosis, illo subquadrato in medio leviter canaliculato, hoc angusto, longe ante basin profunde transversim constricto, in disco leviter longitudinaliter bicostulato (costulis postice approximatis); elytris dense striato-punctatis, interstitiis alternis sensim elevatis; antennis (brevissimis) tarsisque testaceis.

Long. corp. lin. $\frac{3}{4}$ – $\frac{7}{8}$.

Habitat ad domos, necnon in cultis intermediis sub quisquiliis, ad Plantation a meipso lectus.

It is only at Plantation that I met with this small and rather narrow *Latridius*—my few examples (eight in number) having been captured, partly amongst garden-refuse and partly even within the house. In all probability therefore the species is a naturalized one, though the peculiarity of its antennæ (which are extremely short, and have their club only 2- instead of 3-jointed) certainly distinguishes it from all the European ones with which I am acquainted. In other respects it is a very ordinary-looking form—its either piceous or ferruginous hue, and the slightly raised alternate interstices of its elytra, being quite in accordance with a great number of the *Latridii*. Its prothorax is somewhat narrow, and deeply constricted (transversely) behind the middle; and the two hair-like costæ with which the disk is furnished approximate posteriorly, if indeed they do not completely unite.

Fam. 11. MYCETOPHAGIDÆ.

Genus 26. MYCETÆA.

(Kirby) Steph., *Ill. Brit. Ent.* iii. 80 (1830).52. *Mycetæa hirta*.

M. minuta, obovata, rufo-ferruginea, nitida, longe et suberecte griseo-pilosa; capite prothoraceque distincte punctatis, hóc transverso, versus utrumque latus lineâ elevatâ instructo; elytris antice convexis rotundatis, postice paulo acuminatis, grosse subseriatim punctatis (punctis magnis); antennis pedibusque rufo-testaceis.

Long. corp. lin. $\frac{3}{4}$ -vix 1.

Dermestes fumatus, *Mshm* [nec Linn., 1767], *Ent. Brit.* 65 (1802).

Silpha hirta, *Mshm*, l. c. 124 (1802).

Mycetæa hirta, *Woll.*, *Col. Atl.* 156 (1865).

— —, *Crotch*, in *Godm. Azor.* 71 (1870).

— —, *Melliss*, *St. Hel.* 142 (1875).

Habitat sub truncis emortuis vetustis, necnon inter quisquilias, in intermediis editioribusque insulæ.

Not uncommon in the intermediate and rather elevated districts of St. Helena, especially in the neighbourhood of houses and cultivated grounds,—occurring also under old logs of wood, particularly of the firs and Spanish-chestnut trees. I have taken it at Plantation, as well as at West Lodge, Thompson's Wood, and at Cason's; and there cannot be the slightest doubt that it has been accidentally introduced in the island.

The diminutive size, obovate outline, and rufo-ferruginous hue of this little European species (which has been detected also in the Azorean and Madeiran groups), added to its shining and coarsely-punctured surface, which is clothed with elongate suberect hairs, and the raised line with which it is furnished towards either side of its prothorax, will suffice to distinguish it.

Genus 27. TYPHÆA.

(Kirby) Steph., *Ill. Brit. Ent.* iii. 70 (1830).53. *Typhæa fumata*.

T. regulariter parallelo-oblonga (sc. antice et postice æqualiter obtusa), rufo-ferruginea, subnitida, longe fulvo-pubescent; capite prothoraceque minutissime punctulatis, hóc transverso, subconvexo; elytris sensim pallidioribus, minutissime punctulatis, vix

striatis sed pilis in lineis longitudinaliter dispositis; antennis (crassiusculis) pedibusque (compressis) vix pallidioribus.
Long. corp. lin. $1\frac{1}{4}$.

Dermestes fumatus, Linn., *Syst. Nat.* ii. 564 (1767).

Typhæa fumata, Woll., *Col. Atl.* 157 (1865).

— —, *Id.*, *Col. Hesp.* 78 (1867).

— —, *Crotch*, in *Godm. Azor.* 71 (1870).

— —, *Melliss*, *St. Hel.* 142 (1875).

Habitat in intermediis insulæ; inter quisquilias et præcipue sub recremento ad basin acervorum fœni sparso, vulgaris.

The common and widely spread European *T. fumata* (which abounds in the Azorean, Madeiran, Canarian, and Cape-Verde archipelagos, and which is registered even from the United States) has been imported into St. Helena,—where it is now thoroughly established, principally at intermediate altitudes. It occurs for the most part beneath garden-refuse and cut grass, as well as amongst the rubbish around the base of haystacks, and is very common at Plantation and elsewhere in that neighbourhood.

Fam. 12. DERMESTIDÆ.

Genus 28. DERMESTES.

Linnæus, *Syst. Nat.* ii. 561 (1767).

54. *Dermestes cadaverinus*.

D. cylindrico-oblongus, elongatulus, convexus, subnitidus, niger, densissime minuteque punctulatus sed pilis demissis griseis fulvescentibusque dense vestitus (sc. pilis ad marginem prothoracis posticum, necnon in scutello, lætius fulvescentibus); capite subrotundato, oculis magnis; prothorace transverso, postice trisinuato; antennis pedibusque piceis. Subtus magis fulvo-cinereo nigroque pubescens; abdomen sc. fulvo-cinereum, segmentis in medio bimaculatim (maculis a basi usque ad apicem gradatim decrescentibus), necnon in maculâ ad utrumque latus sitâ, nigris.

Mas abdominis segmentis 3^{tio} et 4^{to} fasciculo setarum fulvarum minuto rotundato in medio instructis.

Long. corp. lin. $4\frac{1}{2}$.

Dermestes cadaverinus, Fab., *Syst. Ent.* 55 (1775).

— —, Oliv., *Ent.* ii. 9. 3 (1790).

— domesticus (Gehl.), *Germ., Ins. Spec. Nov.* 85 (1824).

— cadaverinus, Woll., *Ann. Nat. Hist.* iv. 309 (1869).

— —, Melliss, *St. Hel.* 142 (1875).

Habitat “in St. Helenâ. *Mus. Dom. Banks.*” [sec. Fabricius, 1775].

I have not myself, as yet, seen a St.-Helena example of this well-nigh cosmopolitan *Dermestes*, which is so liable to accidental dissemination throughout most countries of the civilized world; nevertheless since the actual type (in the collection of the late Sir Joseph Banks) from which it was originally described by Fabricius, in 1775, was from St. Helena, it is impossible not to assign it a place in the present catalogue. Indeed we may be pretty confident that it will sooner or later be found again in the houses or stores of Jamestown, where its near ally the *D. vulpinus* has recently been met with. It is common in the comparatively neighbouring island of Ascension, where it was taken in profusion by the late Mr. Bewicke; and it has been recorded not only from Europe, but even from the East Indies, Arabia, Siberia, North and South America, Otaheite, &c.; though it would appear to have established itself more in warm countries, generally, than in temperate ones.

The *D. cadaverinus* is rather more elongate and cylindrical than many of the *Dermestæ*; and its dark surface is densely clothed with a coarse griseous decumbent pile, a portion of which, however, (especially on the scutellum and the hinder edge of the prothorax) is slightly fulvescent. The pubescence of its underside is more conspicuously of a fulvo-cinereous hue, the abdomen however being dappled with black,—each segment having two dark patches in the middle (becoming gradually smaller, and more approximating, as they approach the apex) and a somewhat lunate one on either side; and in the male sex the third and fourth segments are additionally furnished in the centre with a little rounded *fossette*, or fasciculus, of strong and brightly fulvescent bristles.

55. *Dermestes vulpinus*.

D. præcedenti primâ facie subsimilis, sed plerumque paulo minor ac minus elongatus, capite (oculis minoribus) prothoraceque ad utrumque latus magis albido-pubescentibus, elytris singulatim ad apicem spinulâ minutissimâ acutissimâ (ab angulo suturali surgente) armatis, antennarumque articulis intermediis vix subminoribus. Abdomen subtus pallidius, sc. albidum, segmentis maculâ laterali magis rotundatâ et magis nigrâ ornatis, ultimi parte centrali omnino nigrâ sed ad apicem fulvo-pubescente.

Mas abdominis segmento 4^{to} foveolâ rotundatâ minutâ (breviter fulvo-setosâ) in medio instructo.

Long. corp. lin. $3\frac{1}{2}$ —vix 4.

Dermestes vulpinus, *Fab., Spec. Ins.* i. 64 (1781).

— —, *Woll., Col. Atl.* 159 (1865).

— —, *Id., Col. Hesp.* 79 (1867).

— —, *Melliss, St. Hel.* 142 (1875).

Habitat in domibus mercatorumque repositoriis, a Dom. Melliss lectus.

Like the last species, the present one is equally cosmopolitan,—though perhaps more liable to introduction into temperate climates than into tropical ones. It has established itself in the Madeiran, Canarian, and Cape-Verde archipelagos; and although I did not myself meet with it, it was taken at St. Helena by Mr. Melliss.

From the *D. cadaverinus* (which it much resembles at first sight) the present *Dermestes* may immediately be known by the excessively diminutive spinule (not always distinguishable, however, unless the elytra be a little uplifted, or raised) with which the extreme apex of each elytron is armed. It is also a trifle smaller, and relatively less elongated, than that species; the intermediate joints of its antennæ are perhaps not *quite* so large; its eyes are less developed; its head and prothorax are clothed on either side with a whiter pubescence; and its abdomen is also whiter beneath, as well as differently dappled—the lateral spots being not only *more* lateral, but rounder and blacker; and the apical segment has its central region altogether dark, though fringed with fulvescent pile. Its male sex has a minute rounded *fossette* in the centre of the *fourth* abdominal segment only, instead of on the *third* and fourth as in the *D. cadaverinus*.

Genus 29. ATTAGENUS.

Latreille, *Hist. Nat.* iii. 121 (1802).

56. *Attagenus gloriosæ*.

A. ovalis, convexus, subnitidus, niger, ubique densissime minutissimeque punctulatus; capite parvo, depresso, grosse fulvo-cinereo-pubescente; prothorace transverso, postice lato trisinuato, grosse fulvo-cinereo- (sed in disco antico nigro-) pubescente; elytris haud striatis, grosse nigro-pubescentibus sed fasciâ transversâ dentatâ (ante medium positâ) fulvo-cinereâ ornatis; antennis (brevibus) rufo-testaceis, clavâ pedibusque (gracilibus) testaceo-piceis.

Long. corp. lin. vix 2.

Anthrenus gloriosæ, *Fab., Syst. Eleu.* i. 107 (1801).

Æthriostoma gloriosæ, *Mots., Etud. Ent.* 146 (1858).

Attagenus gloriosæ, *Woll. Ann. Nat. Hist.* iv. p. 310 (1869).

— —, *Melliss, St. Hel.* 143 (1875).

Habitat in domibus mercatorumque repositoriis, ad Jamestown interdum vulgaris.

The widely spread *A. gloriosa*, which is well-nigh universal within the tropics (being reported from Eastern Africa, India, America, &c., and which has established itself even at Ascension), is occasionally common in the houses and stores of Jamestown,—which is the only locality in which I have myself observed it, and where it has likewise been captured by Mr. Melliss and Mr. N. Janisch. Its convex, oval body and darkly pubescent surface, which, however, is conspicuously ornamented with a fulvo-cinereous fascia before the middle of the elytra, and which has the hairs of its head and prothorax (except those on the fore disk of the latter) of the same fulvo-cinereous hue, will abundantly distinguish it.

Fam. 13. HISTERIDÆ.

Genus 30. TRIBALUS.

Erichson, in *Klug Jahrb.* i. 164 (1834).

57. *Tribalus 4-striatus*.

T. rotundato-ovalis, niger, ubique (in disco levius) punctatus; fronte minutius densiusque punctulatâ, subsemicirculari, angulis anticis subrectis, simplici (nec transversim carinatâ), oculis parvis; elytrorum striis 4 *dorsalibus*, sat profundis, punctatis, usque ad medium ductis, *suturali* nullâ sed ad basin ipsam subarcuatim brevissime conspicuâ, *humerali* tenui obliquâ; pygidio perpendiculari; antennis pedibusque rufo-piceis, tibiis anticis circa 5- vel 6- leviter denticulatis.

Long. corp. lin. vix $1\frac{1}{2}$.

Tribalus 4-striatus, Woll., *Ann. Nat. Hist.* iv. p. 310 (1869).

— —, Melliss, *St. Hel.* 143 (1875).

Habitat St. Helenam, a Dom. Melliss semel tantum repertus.

It is somewhat remarkable that the only two Histerids which have as yet been detected at St. Helena I failed myself to procure,—a single example, merely, of each of them, having been obtained by Mr. Melliss. Unfortunately he preserved no note as to their exact localities; but I think it is almost certain that both species are introduced ones, and such as might occasionally be met with in the vicinity of Jamestown. Still, as I was not able to identify them, in

my memoir on St.-Helena Coleoptera in 1869, with any of the exponents of their respective groups figured in De Marseul's monograph, I had no option but to treat them as novelties; though one of them has since been identified by Mr. G. Lewis with the widely spread *Saprinus bicolor*, Fab.

Although with every appearance of an ordinary *Saprinus*, I mentioned in my paper (above referred to) that the rather small size and entirely punctulated surface of the present Histerid, combined with its semicircular *uncarinated* forehead, and the fact of its elytra being totally free from a sutural line (which is only traceable as a very short subscutellary arcuated impression), affiliate it better with the little cluster of species which constitute the genus *Tribalus*; though it seems to differ from the whole of them in having *four* very distinct dorsal punctured striæ continued to about the middle of each elytron. Apart from other features, its black or piceous-black hue, subrufescent limbs, and perpendicular pygidium will additionally characterize it.

Genus 31. **SAPRINUS.**

Erichson, in *Klug Jahrb.* i. 172 (1834).

58. *Saprinus bicolor.*

S. submetallicus, nitidissimus; capite prothoraceque ænescentibus, illo dense punctato, fronte ab epistomate lineâ transversâ distincte divisâ, hâc versus latera et basin grosse punctato, in disco læviore, ad latera nudo (nec ciliato); elytris cyaneis (aut subvirescenti-cyaneis), sat dense ruguloso-punctatis, punctis in disco antico et versus humeros obsoletis, striis *humeralibus* obsoletis, *subhumerali* distinctâ, longe ultra medium postice ductâ, 4 *dorsalibus* ad medium terminatis (4^{ta} in *suturalem* integram antice arcuatam coëunte); pygidio propygidioque obscurioribus, profunde punctatis; antennis pedibusque nigro-piceis; tibiis anticis circa 8-9-denticulatis.

Long. corp. lin. 3.

Hister bicolor, *Fab., Syst. Eleu.* i. 86 (1801).

Saprinus bicolor, *Mars., Mon. des Histérid.* 439. 66 (1853).

— *lautus*, *Woll., Ann. Nat. Hist.* iv. p. 311 (1869).

— —, *Melliss, St. Hel.* 143 (1875).

Habitat in St. Helenâ; semel collegit Dom. Melliss.

As above stated, I did not meet with this insect at St. Helena, the only example which I have seen from thence having been found by Mr. Melliss. It is a rather large and very beautiful *Saprinus*, with

a blue tinge on the elytra and a somewhat brassy one on the head and prothorax, and one which has slightly the *primâ facie* aspect of the widely-spread *S. semipunctatus*; nevertheless the fact of its epistome being divided from the forehead by a strong transverse line, in conjunction with its sutural stria being complete, and uniting in front with the fourth discal one, remove it into a totally different section of the genus.

The *S. bicolor*, which is manifestly an introduced species at St. Helena (if indeed it be truly established at all), appears to possess a wide acquired range,—it being recorded from the Cape of Good Hope (where it has been found lately by Mr. Gray) and Natal, and many examples being now before me which were collected by B. Gregory, Esq., of H.M.S. 'Spiteful,' in the district of the Congo. And since it is cited likewise from Arabia, we may expect it to occur in many intervening parts of the African continent.

Sectio 6. LAMELLICORNIA.

Fam. 14. APHODIIDÆ.

Genus 32. APHODIUS.

Illiger, *Käf. Preuss.* i. 28 (1798).

59. *Aphodius granarius*.

A. parallelo-oblongus, nitidus, ater, immaculatus; clypeo rugose et dense punctato; prothorace minutissime et parce punctulato punctisque majoribus perpaucis distantibus irrorato; elytris crenulato-striatis, interstitiis minutissime parcissimeque punctulatis, ad apicem vix subpicescentioribus; antennis testaceis, clava obscuriore; pedibus nigro-piceis, tarsis piceo-testaceis, tibiis anticis fortiter 3-dentatis.

Maris clypeus postice tuberculo medio instructus.

Fœm. clypeus fere simplex.

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

Scarabæus granarius, Linn., *Syst. Nat.* i. ii. 547 (1767).

Aphodius carbonarius, Brullé, in *W. et B. (Col.)* 60 (1838).

— granarius, Woll., *Col. Atl.* 178 (1865).

— —, Crotch, in *Godm. Azor.* 73 (1870).

Habitat in stercore bovino et equino, a Dom. P. Whitehead ad Woodcot captus.

This widely-spread European *Aphodius*, which is so liable to accidental transportation along with cattle, and which has established itself in the Azorean, Madeiran, and Canarian archipelagos, appears to be rare at St. Helena,—the only two examples of it which I have seen having been taken by Mr. P. Whitehead at Woodcot. Occurring, however, in the dung both of horses and cattle, it will perhaps be found to be pretty generally distributed. Its deep black unmaculated surface will at once distinguish it from the following species.

60. *Aphodius lividus*.

A. præcedenti similis, sed vix subminor, subangustior; clypeo inæqualiter diluto (sc. utrinque gradatim rufo-testaceo) et paulo minus rugose punctato; prothorace subbreuiore, ad latera (in medio nigro-plagiato) et (angustius) postice gradatim testaceo; elytris testaceis, sed per suturam necnon (minus) in utroque disco lurido-obscurioribus; antennis pedibusque subpicescenti-testaceis.

Maris clypeus postice tuberculo medio instructus.

Fœm. clypeus magis simplex.

Long. corp. lin. 2–2½.

Scarabæus lividus, Oliv., Ent. i. 3. 86 (1789).

Aphodius lividus, Woll., Col. Atl. 178 (1865).

— —, *Id., Col. Hesp. 89 (1867).*

— —, *Crotch, in Godm. Azor. 74 (1870).*

— —, *Melliss, St. Hel. 144 (1875).*

Habitat in locis similibus ac præcedens, necnon etiam inter quisquilias marcidas in cultis.

The European *A. lividus*, which is even more widely spread still than the last species (and which abounds in the Azorean, Madeiran, Canarian, and Cape-Verde groups), is a universal insect in the intermediate and elevated districts of St. Helena,—where doubtless it must have been introduced originally along with cattle. It occurs not only in the dung of the latter, but likewise amongst decaying vegetable refuse,—under which circumstances I have met with it commonly at Plantation, as well as (though more sparingly) on the central ridge, both towards Diana's Peak and Cason's; and it has been found by Mr. P. Whitehead at Woodcot.

Apart from its being (on the average) just appreciably smaller and narrower than that species, the *A. lividus* may be known from the deep-black *A. granarius* by having its clypeus and the sides and base of the prothorax more or less testaceous, and its elytra of the same

hue,—the disk of each of them however being slightly, and the suture more appreciably, darkened. Its limbs too are pale, being piceo-testaceous instead of nearly black.

Fam. 15 TROGIDÆ.

Genus 33. TROX.

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

61. *Trox Winteneadii*.

T. ovato-oblongus, niger, scabrosus, opacus, antice in limbo fulvo-setoso-ciliatus (sed in margine elytrorum calvus); clypeo antice acute triangulariter acuminato; prothorace transverso, antice ad latera explanate rotundato, ad angulos posticos subito emarginato-angustiore, ubique (sed præsertim utrinque) valde inæquali, costis binis flexuosis obtusis dorsalibus, alterâ valde elevatâ antice abbreviatâ (inter dorsum et latus positâ) et tertiâ obscurâ valde abbreviatâ curvatâ anticâ (in dorsalem antice curvatim mergente), præcipue discernendis; coleopteris costis 4 (præter suturam) valde elevatis utrinque instructis (costis 2 exterioribus, atque etiam subsuturali postice, fractis, interruptis), interstitiis leviter sed grossissime et obtuse subbiseriatim tuberculatis (tuberculis versus suturam subobsoletis); antennis ferrugineis, art^o basilari longissime fulvo-piloso; pedibus fulvo-pilosis; tarsis piceis, anticis brevissimis; tibiis omnibus extus simplicibus (haud denticulatis), anticis haud dilatatis sed ad angulum externum processu lato bipartito (e dentibus duobus composito) terminatis.

Long. corp. lin. 4.

Habitat inter quisquilias in intermediis, rarissimus. Species valde distincta in honorem Dom. P. Whitehead citata, qui exemplar unicum ad Woodcot nuperrime collegit.

A single example of this large and well-marked *Trox* was taken lately by Mr. P. Whitehead, amongst refuse, at Woodcot, and forwarded to me from St. Helena; and I have great pleasure in dedicating so interesting an addition to the catalogue to its captor—whose successful researches have rendered me so much assistance in compiling the present volume. Although the species may possibly prove to have a South-African range, it is nevertheless totally distinct from every other with which I am acquainted, or to the diagnosis of which I have had access,—its main features consisting in its acute, triangularly acuminate clypeus, and the four sharply elevated costæ with which each of its elytra (independently of the

raised suture) is furnished. The two outer ridges, however, as well as the extreme apex of the first or inner one, are somewhat broken up and interrupted; and the longitudinal spaces between them are branded with a double row of large and obtuse, but not much elevated, tubercles—which, however, become nearly obsolete towards the suture. Its prothorax (which is suddenly scooped out at the basal angles, and which, together with the head, is ciliated with fulvous setæ, the *elytra* having their margin bald) is *extremely* uneven, particularly towards the sides; and there are two somewhat flexuose costæ down the dorsal region, as well as a greatly raised one behind, midway between the centre and edge, and an obscurer short curved one in front, rounded into the anterior extremity of the dorsal one which is nearest to it. Its tibiæ are simple externally (or free from denticles); though the front pair (which are not at all dilated) have their outer angle produced into a broad and slightly bipartite process (as though composed of two basally confluent teeth); and its fore feet are exceedingly abbreviated.

Fam. 16. RUTELIDÆ.

(Subfam. ANOPLOGNATHIDES.)

Genus 34. ADORETUS.

(Eschscholtz) De Castln., *Hist. Nat.* ii. 142 (1840).

62. *Adoretus versutus*.

A. valde alatus, ovato-oblongus, depressiusculus, brunneo-piceus pilisque cinereis demissis parce et grosse irroratus; capite prothoraceque nitidis, illo magno, rugose punctato, postice in medio convexo ac minus sculpturato, oculis maximis, clypeo semicirculari picescentiore ad marginem recurvo, hâc brevissimo, marginato, grosse punctato, ad latera rotundato, angulis anticis subporrectis, posticis rotundato-obtusis; elytris amplis, magis brunneis, sensim minus nitidis, punctato-rugosis (punctis, saltem majoribus versus latera, subseriatim dispositis), parce longitudinaliter costatis; antennis (brevibus) pedibusque (robustis) rufo-ferrugineis, tibiis anticis 3-dentatis, posticis latis; tarsis piceis, unguiculis magnis, inæqualibus.

Long. corp. lin. $5\frac{1}{2}$ –6.

Adoretus vestitus, *Bohem.* [nec *Reiche*, 1847], *Eugen. Res.* 56 (1858).

— *versutus*, *Harold, Col. Hefte*, v. (1869).

— —, *Woll., Ann. Nat. Hist.* iv. p. 312 (1869).

— —, *Melliss, St. Hel.* 144 (1875).

Habitat in inferioribus intermediisque insulæ, folia *Quercûs* (et olim *Vitis*) copiosissime destruens.

Apparently a very common insect in the rather low and intermediate districts of the island during the early summer months, where it used formerly to be very destructive to the vines, but where now it subsists more particularly on the young foliage of the oaks. This latter peculiarity in the *modus vivendi* was first pointed out to me by the Rev. H. Whitehead,—who, on the 15th of December 1875, brought me a perfect profusion of specimens which he had gathered during the previous evening at Woodcot; and he assures me that they make their appearance every year, much about the same season, in equal abundance. Mr. Melliss, however, says that it devours “the leaves and young shoots of the vines so voraciously as very soon to reduce a vine from full leaf to bare stems. As it hides away under stones and woodwork during daylight, only emerging as night comes on, the gardener finds that it requires special exertion to keep it in check;” but as the vines have now so greatly disappeared, its change of *habitat* is not unintelligible.

Not to mention its more strictly generic characters, the powerfully winged *A. versutus* may be known from the few Lamellicorns which are here enumerated by its oblong outline, and brownish, or brownish-piceous, surface (which is sparingly clothed with a short, but coarse and decumbent, cinereous pubescence); by its rather large head, semicircular clypeus, and greatly developed eyes; by its extremely abbreviated and strongly margined prothorax; by its ample, subcostate, rugulose elytra; and by the inequality of its claws.

Fam. 17. DYNASTIDÆ.

(Subfam. PENTODONTIDES.)

Genus 35. HETERONYCHUS.

(Dejean) Burm., *Handb. der Ent.* v. 90 (1847).

63. *Heteronychus arator*.

H. alatus, breviter oblongus, subcylindricus, niger aut piceo-niger, supra calvus convexus nitidus; capite subtriangulari, rugose transversim subplicatulo-asperato, clypeo ad latera et antice (trisinuato) anguste recurvo; prothorace transverso-quadrato, convexo, fere impunctato, ad latera æqualiter rotundato; elytris postice paulo

truncato-abbreviatis, profunde punctato-striatis, striis punctisque ad latera subevanescentibus; antennis (brevissimis) pedibusque (robustis) piceis; tibiis latis, anticis fortiter 3-dentatis, posterioribus valde spinosis.

Mas tarsorum anticorum unguiculo interno valde incrassato et inflexo.

Long. corp. lin. 6-7.

Scarabæus arator, *Fab.*, *Ent. Syst.* i. 33 (1792).

Heteronychus arator, *Burm.*, *l. c.* 94 (1847).

— *Sanctæ-Helenæ*, *Blanch.*, *Voy. P. S.* iv. 105, p. 7. f. 6 (1853).

— *arator*, *Woll.*, *Journ. Ent.* i. 210 (1861).

— —, *Id.*, *Ann. Nat. Hist.* iv. p. 312 (1869).

— —, *Melliss*, *St. Hel.* 144 (1875).

Habitat in intermediis editioribusque, hinc inde occurrens, ad latera viarum necnon in terrâ sub lapidibus.

Next to the two species of *Mellissius*, this is the largest of the St.-Helena Lamellicorns; and it has much the appearance of being truly indigenous, though found equally in Southern Africa. It occurs at intermediate and rather lofty altitudes, its normal range being from about 2000 to 3000 feet above the sea. Midway between Plantation and the central ridge it usually commences to make its appearance, and is sometimes very abundant as we approach the lower portions of the latter,—as, for instance, along the road from Cason's to High Peak and West Lodge. It was taken, however, by Mr. Gray as low down as Francis Plain, and by Mr. P. Whitehead at Woodcot. It is more particularly along the sides of the roads that it is practically to be met with, "in the neighbourhood," as Mr. Melliss well observes, "of grass-lands and hayfields,"—where it may often be seen lying dead in considerable numbers, or crawling sluggishly about amongst the loose friable dusty soil, in company with the *Mellissius eudoxus*, with which at first sight it might almost be confounded. Apart however from the structural characters which separate it from that insect (amongst which its fully developed wings, and the greatly thickened and curiously bent *inner* claw of the two anterior feet of the male should be especially noticed), it may at once be recognized by its much smaller size and more shortly oblong, sub-cylindric outline, by its darker hue and more highly polished surface, by its clypeus being more rugose, and trisinuate (instead of truncate) in front, by its prothorax being unsculptured, and by the punctures of its elytra being distributed in regular striæ.

Unlike those of the *Mellissii*, the sexes of the *H. arator* are about equally abundant.

Genus 36. **MELLISSIUS.**(Bates) Wollaston, *Ann. Nat. Hist.* iv. 313 (1869).

Corpus crassum, supra nudum, subtus pilis longis robustis obsitum; *capite* triangulari, *clypeo* apice truncato, necnon ibidem, ac subito (ante oculos) in genis, plus minus incrassato recurvo, *fronte* in medio tuberculatâ: *prothorace* magno, convexo, ad latera sub-æqualiter rotundato, in utroque sexu simplici (nec antice impresso); *prosternali lobo* (inter coxas anticas) brevi, piloso: *scutello* semicirculari-triangulari: *alis* minutis, obsoletis: *instrumentis stridentibus* propygidium pliculis brevibus tuberculisve transversis (vel ubique dense, vel multo parcius) asperantibus. *Antennæ* 9-art^æ: art^o 1^{mo} elongato, robusto, subclavato, subflexuoso, 2^{do} brevi transverso, 3^{to} minore brevior, 4^{to}, 5^{to}, 6^{to} gradatim paulo crescentibus, reliquis clavam magnam foliatam ovalem 3-articulatam efficientibus. *Labrum* clypeo absconditum. *Mandibulæ* corneæ, robustæ, subtriangulares, concavæ, apice incurvæ obtusæ, extus setis longissimis instructæ. *Maxillarum lobus internus* obsoletus; *externus* latus, suboblongus, setisque longissimis ubique obsitus. *Palporum maxillarium articulus ultimus* obovato-oblongus, *labialium* subovatus. *Mentum* (ligulam occultans) elongatum, subtriangulare, corneum, pilis longissimis obsitum. *Pedes* fossorii, robusti, sub-æquales: *tibiis anticis* extus fortiter tridentatis, *posterioribus* apice truncatis ciliatis: *unguiculis* æqualibus.

Although published in 1869, I have thought it desirable to give a fresh, and somewhat emended, diagnosis of this remarkable genus, on account of its extreme importance in the aboriginal fauna of St. Helena,—the two representatives of it which have hitherto been brought to light being perhaps the only Lamellicorns, with the possible exception of the *Heteronychus arator*, which have any claims whatever to be looked upon as truly and absolutely indigenous. Its structural features bring it into rather close proximity with the Australian groups *Cheiroplatys* and *Isodon*, although it is abundantly distinct from both of them; yet, unlike the members of those genera, the prothorax is entire in both sexes, and the organs for stridulation are developed; moreover the anterior tibiæ are not enlarged as in *Cheiroplatys*. The wings of the *Mellissii*, unlike those of *Heteronychus*, are so small and rudimentary that the species must be considered as practically apterous; and their legs, as though to compensate for the organs of flight, are extremely robust and powerful, and are much in accordance with their sluggish, fossorial modes of life.

64. *Mellissius eudoxus*.

M. crassus, subquadrato-ovatus, rufo-piceus, nitidus; capite (præsertim in ♂) grosse ruguloso-punctato; clypeo subtriangulari, apice late truncato et ibidem anguste recurvo, ad latera anguste marginato; prothorace magno, convexo, grosse punctato, angulis anticis subporrectis acutiusculis, posticis rotundato-obtusis, ad latera subrotundato et longe fulvo-ciliato; elytris subquadratis sed pone medium latiusculis, apice subtruncato-abbreviatis (angulis suturalibus vix rotundatis), propygidium recte transversum sublæve nitidum (mucronibus perpauca distantibus, in medio majoribus transversis, adpersum) occultantibus, grossissime et confuse submalleato-punctatis (punctis plus minus confluentibus, et nonnullis vix sublongitudinaliter dispositis), suturâ subelevatâ, et sæpius obsoletissime longitudinaliter sub-bicostatis; pygidio semicirculari, subnitido; pedibus robustis, fossoriis, fulvo-pilosis.

Maris clypeus tuberculo medio distincto instructus; prothorax submajor; pygidium minutissime et densissime subrugulosum.

Fœm. clypeus minus distincte tuberculatus; prothorax subminor; pygidium sensim lævius.

Long. corp. lin. 7-9.

Scarabæus eudoxus, in *Dej. Cat.* 168 (1837).

Mellissius eudoxus, *Woll., Ann. Nat. Hist.* iv. 314 (1869).

— —, *Melliss, St. Hel.* 145, pl. 23. f. 3 (1875).

Habitat subeditiores insulæ, ad latera viarum, præsertim juxta graminosos, lente movens.

The normal range of the *M. eudoxus* does not differ greatly from that of the *Heteronychus arator*, though, while ascending (in like manner) to the less-elevated portions of the central ridge, it perhaps scarcely *descends* quite so low as that insect does,—about 2500 feet above the sea being the height at which it is more particularly abundant. Like the *Heteronychus arator*, it is more often to be met with crawling sluggishly at the sides of the roads, in the vicinity of grass-lands, than elsewhere,—its larvæ, apparently, being very destructive to the roots of the grass. Mr. Melliss speaks of the latter, in conjunction with those of the *M. adumbratus*, as called “hog-worms,” and quotes an account by General Beatson of the manner in which they pursue their depredations; but I think it must be the grubs of (more particularly) the *M. eudoxus* to which in reality he alludes, for that species is certainly very much more abundant than the other. Indeed we met with the *eudoxus* almost universally throughout the rather elevated central and south-western parts of the island (particularly in the vicinity of Cason’s, High

Peak, and West Lodge), and more sparingly even in the northern ones, whereas of the *adumbratus* I did not procure so much as a single example during our six months' sojourn in the island; so that, if the "hog-worms" do really "play so important a part in the destruction of the grass on the high lands, by feeding on its roots, that large patches, and sometimes whole fields, are laid bare," I suspect that it must be the *M. eudoxus*, and not the comparatively rare *adumbratus*, which is mainly responsible for the damage. I will, however, just add, that our researches were so very much less pursued in the northern division of the island than they were in the central and south-western ones, that it is not impossible that the *adumbratus* may be found to occur in some parts of the former, and that the work of depredation may be carried on by both species within their respective areas; though, even in that case, the fact undoubtedly remains that by far the larger portion of the high land has the *M. eudoxus* for its tenant, and not the *adumbratus*. Possibly, though I did not observe it there, the latter may prove to be the dominant form on the Longwood and Deadwood Plains, or (which is still more likely) towards the eastern coast.

The excessive rarity of the female sex in the *Mellissii*, as compared with the males, is very remarkable. Indeed when I enunciated the genus in 1869 I had not seen a single female of either species, though I had 18 examples altogether before me; and even now, out of a large number of the *M. eudoxus* which were collected by myself, there are only two or three of that particular sex. It does not appear, however, to differ much, in its general characters, from the male—the tubercle of its clypeus being merely a little less distinct, its prothorax a *trifle* smaller, and its pygidium appreciably smoother (or less rugulose).

65. *Mellissius adumbratus*.

M. præcedenti similis, sed subpallidior ac magis opacus; capite paulo minus rugose punctato; clypeo subangustiore, ad apicem minus late truncato sed magis recurvo, ad latera minus obliquo et crassius marginato, tuberculo medio magis elevato instructo; prothorace sublevius punctato, necnon ad latera in medio subangulato (aut, saltem, minus æqualiter rotundato); elytris nullo modo (non etiam obsoletissime) sub-bicostatis, suturâ sensim minus elevatâ, angulis ipsis suturalibus omnino rectis, punctis etiam minus sublongitudinaliter dispositis; propygidio (vix omnino elytris abdito) triangulari (i. e. in medio angulatim producto, nec recto), magis

opaco, multo densius ac magis regulariter plicatulo-asperato; pygidio lunari (nec semicirculari) et magis opaco.
Long. corp. lin. $8\frac{1}{2}$ – $9\frac{1}{4}$.

Mellissius adumbratus, *Woll., Ann. Nat. Hist.* iv. 315 (1869).

— —, *Melliss, St. Hel.* 145 (1875).

Habitat (nisi fallor) versus orientem insulæ, a Dom. Melliss supra Prosperous Bay deprehensus.

I have scarcely sufficient material to decide for certain whether this species may not be, on the average, a trifle larger than the last one; however, it is certainly a little paler, or redder, and very much more opaque. Its head is rather less roughly sculptured; and its clypeus (which is narrower, or less *obliquely* sloping at the sides) is *less broadly* truncated, as well as appreciably more recurved, in front, with its lateral edges more thickened, or coarsely margined, and with its central tubercle more developed; its prothorax, which is not *quite* so deeply punctured, is rather less *equally rounded* at the sides, it having a faint tendency to be subangulated in the middle. Its elytra, which are free from all appearance of being even *obsoletely* (as in the *M. eudoxus*) longitudinally-costate, have their suture less elevated and their sutural angles somewhat more sharply expressed; and they are also sufficiently truncated behind to leave exposed (which is not the case in the *M. eudoxus*) a small portion of the propygidium. The latter is *triangular* instead of transverse, it being separated from the pygidium by an angular line instead of a *straight* one; and it is likewise more opaque, and much more densely asperated with minute transverse tubercles (or short file-like plaits) for the purpose of stridulation. And its pygidium is lunate (instead of semicircular), and more opaque*.

In speaking of this insect and the last one, Mr. Melliss says, "Both species are plentiful, and occur in similar localities;" but I have already given my reason why I think that some qualification of that statement is necessary. Indeed, out of 18 examples which Mr. Melliss himself sent to me for examination, three only belong to the *M. adumbratus*; and these three embody all that I yet know

* In all probability the *M. adumbratus* will be found to stridulate audibly. In my original diagnosis of the genus and its two representatives, I expressed an opinion that, from the comparatively slight file-like arrangement on its propygidium which is observable in the *M. eudoxus*, that species would scarcely be able to produce a sound sufficiently loud to be heard; and I may now add that I have not succeeded in detecting in it any stridulation that is appreciable. But whether the powers of the *M. adumbratus* are, in that respect, greater (as I am rather inclined to believe), remains yet to be proved.

about the latter. And, moreover, since Mr. Melliss expressly mentions that he "found this insect under stones on the low barren plains near Prosperous Bay" (a locality which we never explored, and which is totally different from those which are normally occupied by the *M. eudoxus*), I would venture to surmise that it is probably towards the *eastern* side of the island, and perhaps at a rather lower altitude, that the *M. adumbratus* will be found more particularly to occur*.

Sectio 7. PRIOCERATA.

Fam. 18. ELATERIDÆ.

Genus 37. ANCHASTUS.

Leconte, *Trans. Am. Phil. Soc.* x. 459 (1853).

66. *Anchastus compositarum*, n. sp.

A. elliptico-elongatus, angustulus, niger, pilisque brevissimis minutissimis demissis cinereis parce irroratus; capite prothoraceque subopacis, densissime et profunde punctatis (punctulis nonnullis intermediis minoribus), hâc magno, convexo, in medio coleopteris latiore, angulis posticis valde productis, acutissimis, subsinuatum vix exstantibus, et carinulis binis instructis, in disco postico obsolete canaliculato, basi transversim declivi sed in parte mediâ ipsissimâ (ante scutellum) sublobato-elevato; elytris elongato-ellipticis, sensim nitidioribus, grosse arguteque crenato-striatis, in interstitiis minutissime levissimeque punctulatis ac obsolete subrugulosis; antennis, palpis, pedibusque rufo-ferrugineis; tarsorum art^o 3^{tio} subtus late bilobo.

Var. β. capite prothoraceque sensim nitidioribus, hâc postice magis subito declivi; elytrorum interstiis paulo magis rugulosis.

Long. corp. lin. 5-6.

Habitat editiores, præcipue in ligno *Compositarum* antiquo; æstate ineunte, occurrens.

The present species and the following one, which are the only Elaterids which have hitherto been detected at St. Helena, resemble each other very closely; nevertheless I am satisfied that they are

* The very excellent figure which Mr. Melliss has given to illustrate this genus belongs evidently, from its shining surface, to the *M. eudoxus*; nevertheless I may just mention that it is cited as the *adumbratus*,—which would seem to imply that the two species may perhaps have been a little confounded by him as to their exact points of difference.

truly distinct, and that they cannot be looked upon as local modifications of a single form,—being, in point of fact, very frequently found associated. They both of them occur in the higher parts of the island, within the region of the arborescent *Compositæ*,—to which in their larva-states they would appear to be attached. Indeed, until they make their appearance after the early summer rains (about the beginning of February), when they may be found abundantly beneath stones in open grassy places, the few which I have ever met with have been broken out of the dead boughs and trunks of the various cabbage trees and gumwoods,—within which they clearly undergo their transformations. In fact on the eastern, and almost inaccessible, side of High Peak I on one occasion brought away with me a small portion of an old rotten branch of the “Whitewood Cabbage Tree” (*Petrobium arboreum*, R. Br.), within which the *Anchasti* had manifestly just arrived at maturity; and although less than a foot in length, I obtained, by breaking it open carefully, more than 50 examples,—about two thirds of which belonged to the present species, and the remainder to the *A. atlanticus*; and my belief is, that the *A. compositarum* will be found to be more attached to the *Petrobium arboreum* than to any of the four native cabbage trees. Along the whole line of the central heights, from Diana’s Peak to High Peak, the *A. compositarum* may be captured at times, during the commencement of the summer, in this sort of manner,—a single piece of dry tinder-like wood harbouring often a perfect colony of individuals; and I may add that Mr. P. Whitehead has obtained the species on Stitch’s Ridge in much the same profusion as I did at High Peak.

The *A. compositarum* is, on the average, the larger of the two *Anchasti*, and its limbs are usually a trifle more robust; its surface is appreciably darker (it seldom being brownish or fuscous), as well as more sparingly besprinkled with a much shorter and more minute cinereous pubescence; its elytral interstices are more finely punctured, and less rugulose; and its prothorax, which is just perceptibly opaker, convexer, and more rounded about the middle, has its posterior angles relatively somewhat narrower and more acute, and less straightened,—having a slight tendency to be a little sinuated or outwardly-curved.

The examples from Flagstaff Hill, in the extreme north of the island, are not quite so typical as those from High Peak and Stitch’s Ridge, being in some respects intermediate between the two species;

nevertheless their exceedingly narrow and acute hinder prothoracic angles and very abbreviated pubescence will, I think, refer them to the *A. compositarum* rather than to the *atlanticus*, though in their less opaque head and prothorax (the latter of which is *very* suddenly sloped off in the middle), as well as in the more rugulose interstices of their occasionally subfuscescent elytra, they approach somewhat to the latter. In all probability they belong to the Gumwood fauna which must once have been dominant on the Longwood and Deadwood plains, and may perhaps represent some slight modification, or variety, peculiar to those trees, which have now almost totally disappeared.

67. *Anchastus atlanticus*.

A. præcedenti similis, sed minor, plerumque paulo magis piceus aut fuscescens, pilisque longioribus grossioribus ac sensim magis griseis vestitus; capite prothoraceque submagis nitidis, hoc vix minus convexo et in medio vix angustiore, angulis posticis sensim rectoribus minusque acutis (sc. nullo modo subsinuatim subexstantibus), postice paulo abruptius declivi; elytris vix magis ellipticis, insterstitiis paulo magis subruguloso-asperatis; antennis pedibusque subrobustioribus, tarsorum posteriorum art^o 1^{mo} vix minus elongato.

Long. corp. lin. 4—vix 5.

Anchastus atlanticus, *Cand., Mon. Elat.* ii. 409, t. 3. f. 8 (1859).

Heteroderes puncticollis, *Woll., Ann. Nat. Hist.* iv. 317 (1869).

Anchastus atlanticus, *Id., ibid.* viii. 401 (1871).

— —, *Melliss, St. Hel.* 146 (1875).

Habitat in intermediis editioribusque insulæ; vel sub lapidibus in graminosis apertis, vel in ligno *Compositarum* antiquo.

As already implied, this is (on the average) a rather smaller species than the preceding one, less decidedly black (the elytra being *frequently* picescent, or even brownish), and clothed with a coarser and longer pile; its head and prothorax are just perceptibly more shining, the latter being also a *trifle* less convex and less rounded before the middle, as well as a little more *abruptly* desilient behind, and with the posterior angles appreciably straighter and not *quite* so narrowed or acute; its elytra (which are somewhat more shortened, or elliptic) have their interstices more rugulose; and its limbs are less conspicuously robust.

Like the last one, the present species appears to be attached, in at any rate its larval condition, to the arborescent *Compositæ* of a somewhat high altitude, more particularly (I think), though by no

means exclusively, to the Little Bastard Gumwood, or *Aster gummiferus*, Hk. fil.; but in its perfect state it is more often to be met with beneath stones in open grassy spots, especially in the vicinity of those particular shrubs. After the early summer rains, about the beginning of February, it makes its appearance in comparative abundance; during which season I took it in profusion just behind the lofty ridge, above West Lodge, overlooking the great Sandy-Bay crater, as well as on the eastern (and well-nigh inaccessible) slopes of High Peak, and also (though more sparingly) so low down as even Plantation. It has been captured by Mr. P. Whitehead on Halley's Mount, and likewise (in great profusion), beneath stones, on Green Hill.

Fam. 19. CLERIDÆ.

Genus 38. CORYNETES.

Herbst, *Käf.* iv. 148 (1791).

68. *Corynetes rufipes*.

C. ovato-oblongus, cæruleus aut cyaneus, nitidus, pilisque elongatis suberectis griseo-nigrescentibus obsitus; capite prothoraceque (interdum subæneo-tinctis) profunde punctatis, hoc subconico-rotundato; elytris profunde substriato-punctatis, interstitiis transversim rugulosis; antennis pedibusque læte rufo-testaceis, illarum clavâ (magnâ) articulisque adjacentibus nigrescentibus.

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

Anobium rufipes, Thunb., *Nov. Ins. Spec.* i. 10 (1781).

Corynetes rufipes, Woll., *Col. Atl.* 209 (1865).

— — —, *Id.*, *Col. Hesp.* 102 (1867).

— — —, *Id.*, *Ann. Nat. Hist.* iv. 317 (1869).

— — —, *Melliss, St. Hel.* 146 (1875).

Habitat in domibus repositoriisque insulæ, ex alienis certe introductus.

There are few insects more widely dispersed than the common European *C. rufipes*, its constant liability to transmission along with various articles of commerce and merchandise having rendered it well-nigh cosmopolitan. It has become established in the Canarian and Cape-Verde archipelagos, and was taken by the late Mr. Bewicke at Ascension; but at St. Helena it does not appear to be usually very abundant, though to be met with occasionally in the houses and stores of Jamestown,—where it has been likewise found by the Rev. H. Whitehead and Mr. N. Janisch. Mr. Melliss mentions that it occurs also about Ladder Hill. Its bright cyaneous, or metallic-blue, surface

(which is coarsely punctured, and clothed with dark suberect hairs), in conjunction with the clear rufo-testaceous hue of its antennæ and legs, the former of which, however, have their club and antecubital joints blackish, will abundantly characterize it.

Fam. 20. PTINIDÆ.

Genus 39. GIBBIUM.

Scopoli, *Int. ad Hist. Nat.* 505 (1777).

69. *Gibbium scotias*.

G. ovatum, valde convexum, politissimum, calvum, esculpturatum, subtranslucens, rufo-castaneum; capite deflexo; prothorace brevissimo, transverso, elytris arcte applicato; antennis pedibusque elongatis, crassis, densissime fulvo-cinereo-squamosis.

Long. corp. lin. 1.

Ptinus scotias, *Fab., Spec. Ins.* i. 74 (1781).

Gibbium scotias, *Woll., Col. Atl.* 214 (1865).

— —, *Id., Ann. Nat. Hist.* iv. 318 (1869).

— —, *Melliss, St. Hel.* 147 (1875).

Habitat circa domos et in cultis, rarissime; certe introductum.

A single example of the European *G. scotias* (which has become naturalized also in Madeira) was taken by Mr. Gray, amongst garden refuse, at Plantation, and another had previously been met with by Mr. Melliss; but the species is, of course, a mere introduction from more northern latitudes. There is no fear of confounding it with any thing else which concerns us in this volume,—its extremely convex, highly polished, unsculptured, glabrous, semitransparent, globule-shaped body, added to its bright-chestnut (or rufo-castaneous) hue, and the fact of its thick, elongate limbs being densely clothed with a fine and closely-set fulvo-cinereous pubescence being more than sufficient at once to characterize it.

Fam. 21. ANOBIIDÆ.

Genus 40. ANOBIUM.

Fabricius, *Syst. Ent.* 62 (1775).

§ 1. *Scutellum transversum*.

70. *Anobium velatum*.

A. parallelo-oblongum, subcylindricum, piceo-brunneum, subnitidum,

longe et molliter fulvo-cinereo-pubescent pilisque elongatis sub-
erectis mollibus velatum; capite prothoraceque granulato-asperatis,
illo oculis maximis, prominentibus, hâc lato, convexo, transverso-
subquadrato, ad latera in medio subrecto, angulis posticis rotun-
datis, lineâ læviore obsoletâ dorsali instructo; elytris profunde
striato-punctatis, interstitiis parce granulato-rugulosis; antennis
pedibusque longiusculis, crassis, piceis.

Long. corp. lin. 2.

Anobium velatum, Woll., *Ins. Mad.* 276, t. v. f. 3 (1854).

— —, *Id.*, *Col. Atl.*, 226 (1865).

— —, *Id.*, *Ann. Nat. Hist.* iv. 318 (1869).

— —, *Melliss, St. Hel.* 147 (1875).

Habitat in cultis et domibus, ad lignum antiquum; rarissimum.

I did not meet with this *Anobium* at St. Helena; but a single example was obtained by Mr. Melliss, and a second has been given to me by Mr. P. Whitehead—taken by himself at Woodcot. The species is without doubt a naturalized one, and may perhaps have been more abundant before the vines (to which I believe it to be a good deal attached; at least so it appears to me in at any rate the Madeiran and Canarian archipelagos) were so generally destroyed. It is the largest of the St.-Helena *Anobia*; and it may be further distinguished by its roughly sculptured, piceous-brown surface, which is clothed with soft, elongate, and nearly erect hairs, and by its rather wide, convex, transverse-quadrate prothorax. It is studded with small *granules*, rather than punctules; but the punctures of its elytral striæ are both deep and somewhat coarse, and its eyes are very large and prominent.

§ 2. *Scutellum subtriangulare.*

71. *Anobium paniceum.*

A. breviter oblongum, subopacum, rufo-ferrugineum, breviter et molliter (et vix demisse) fulvo-cinereo-pubescent; capite prothoraceque minute subgranulatis, hâc lato, convexo, ad latera leviter explanato rotundato, postice in medio obsolete subcarinulato-gibboso; elytris minute crenulato-striatis; antennis pedibusque testaceis.

Long. corp. lin. circa $1\frac{1}{3}$.

Dermestes paniceus, Linn., *Fna Suec.* 431 (1761).

Anobium paniceum, Woll., *Col. Atl.* 227 (1865).

— —, *Id.*, *Col. Hesp.* 109 (1867).

— —, *Crotch, in Godm. Azor.* 77 (1870).

— —, *Melliss, St. Hel.* 147 (1875).

Habitat in domibus insulæ mercatorumque repositoriis, passim.

Like the *A. domesticum*, this universal European insect (which occurs in the Azorean, Madeiran, Canarian, and Cape-Verde groups) has acquired for itself almost a world-wide range, its liability to intertransmission amongst civilized countries along with farinaceous substances and other articles of commerce having succeeded in establishing it almost everywhere. At St. Helena it is not uncommon; often amongst bread and meal, as well as about old houses generally, —under which latter circumstances it has been taken by Mr. P. Whitehead at Woodcot.

The *A. molle* is a rather small and insignificant *Anobium*, and one which may be known by its shortly-oblong outline, rufo-ferruginous hue, and nearly opaque, densely pubescent surface,—the hairs of which, however, although equally fine and soft, are not quite so elongate, or so erect, as those of the *A. velatum*. Its prothorax is as wide behind as the base of the elytra, and nearly even; and the latter are minutely crenate-striated.

72. *Anobium domesticum*.

A. angustulum, elongatum, subopacum, brunneo-piceum elytris dilutioribus, minutissime, brevissime, et omnino demisse fulvo-pubescent; capite prothoraceque angustis, subgranulato-rugulosis, hâc parvo, inæquali, lateraliter compresso, versus angulos posticos anguste acuteque subexplanato-marginato, in disco postico alte gibboso-carinato; elytris profunde striato-punctatis, utrinque ante apicem obsolete subgibbosis; antennis (rufo-testaceis) pedibusque (piceo-ferrugineis) longiusculis, gracilibus.

Long. corp. lin. $1\frac{1}{3}$ –2.

Anobium domesticum, Fourcr., *Ent. Par.* i. 26 (1785).

— striatum, Oliv., *Ent.* ii. 16. 9 (1790).

— —, Woll., *Col. Atl.* 227 (1865).

— —, *Id.*, *Col. Hesp.* 109 (1867).

— domesticum, Crotch, in *Godm. Azor.* 77 (1870).

— striatum, Melliss, *St. Hel.* 147 (1875).

Habitat in domibus, passim; ex Angliâ forsan introductum.

This widely-distributed European *Anobium*, which from its constant liability to exportation along with timber (and in vessels) has acquired an almost cosmopolitan range, and which has established itself in the Azorean, Madeiran, Canarian, and Cape-Verde archipelagos, occurs sparingly in houses at St. Helena. I have met with it frequently at Plantation; and it has been found by Mr. P. Whitehead at Woodcot.

The rather narrow outline and piceo-brownish hue of the *A. domesticum*, added to its nearly opaque and very minutely and *shortly* pubescent surface, and its small, uneven, laterally compressed prothorax, which is acutely margined towards the posterior angles, and obtusely carinated (or gibbose) on the hinder disk, will sufficiently distinguish it.

73. *Anobium confertum*.

A. cylindricum, aut nigrum aut fusco-nigrum, opacum, ubique minutissime et densissime subarenaceo-granulatum (vix punctulatum) pubesque brevi cinerea et omnino demissa parce sericatum; capite deflexo, oculis magnis, prominentibus; prothorace brevi, transverso, simplici, convexo, postice elytrorum latitudine, angulis anticis subrectis, posticis magis rotundatis, ad latera subrecto regulariter explanato-recurvo atque ferrugineo; elytris obsoletissime longitudinaliter substriatis (sed nullo modo punctatis); antennis pedibusque gracilibus et inæqualiter piceo-ferrugineis, tarsis clarioribus.

Long. corp. lin. $1\frac{3}{4}$ – $2\frac{1}{4}$.

Anobium confertum, Woll., *Ann. Nat. Hist.* iv. 319 (1869).

— —, Melliss, *St. Hel.* 147 (1875).

Habitat inter arbusculos *Asteris glutinosi*, Roxb. (anglice "Scrubwood"), lignum antiquum destruens.

The single example, taken by Mr. Melliss, which I had seen of this very distinct *Anobium* in 1869 was unaccompanied with any note as to its *habitat*; and considering, therefore, how eminently liable the *Anobia* are to accidental introduction throughout the civilized world, I expressed my doubts (while describing it as new) as to its real claims to be regarded as indigenous at St. Helena. Even now, only one more individual has come beneath my notice; but since its *modus vivendi* is unmistakably defined, I am enabled at all events to treat the species which it represents as, without doubt, one of the aboriginal exponents of the fauna; so that the *A. confertum* is no longer dubious as regards the question of its origin. It is to Mr. P. Whitehead that we are indebted for clearing up this particular point, and showing that it is probably to the *Aster glutinosus*, or "Scrubwood," that the insect is attached,—some decayed portions of that viscous and essentially characteristic shrub which he collected in the vicinity of Flagstaff Hill having produced, amongst certain *Microxylobii* of undoubted Scrubwood-infesting habits, the specimen to which I have just called attention. Unfortunately we had no

opportunities, during our six months' sojourn in the island, of investigating the Scrubwood,—one of the aboriginal arborescent *Compositæ* which is now becoming extremely scarce, and confined to a few hot and arid districts towards the coast which are practically difficult of access ; but Mr. Whitehead has proved to a demonstration that it harbours a little fauna of its own, and that it only requires to be carefully searched to add (even yet) new members to the catalogue. I have consequently but little doubt that when the Scrubwood-regions have been thoroughly examined, the present *Anobium* will be found to occur more plentifully, and will cease to be (as now) well-nigh unique*.

There is no fear of confounding the *A. confertum* with any other of the *Anobia* recorded in this volume,—its cylindrical outline and opaque curiously-sculptured surface, which is altogether devoid of punctures but which is most densely, evenly, and *minutely* granulated all over (like the finest possible seal-skin), and apparently more or less clothed, or sericated, with an extremely short and quite decumbent whitish, cinereous pubescence, being more than sufficient to distinguish it. Its colour is either black or brownish black ; its eyes are large and very prominent ; its prothorax is wide, transverse, and *even*, with the lateral edges rather straightened, but *ferruginous* and conspicuously flattened and recurved ; its elytra are *almost* free from even obsolete traces of longitudinal striæ ; and its limbs are slender and piceo-ferruginous.

Fam. 22. BOSTRICHIDÆ.

Genus 41. RHIZOPERTHA.

Stephens, *Ill. Brit. Ent.* iii. 254 (1830).

74. *Rhizopertha bifoveolata*.

R. breviter cylindrica, piceo-ferruginea, subopaca ; prothorace magno, subgloboso, valde convexo, scabroso, necnon antice mucronibus fortiter asperato, ad basin foveolis duâbus mediis impresso ; elytris ubique confertim punctatis (haud striatis), ad apicem integris ; antennis longiusculis, robustis.

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

* Since these observations were written, another example of the *A. confertum* has been communicated by Mr. P. Whitehead. It was taken by himself on "the Barn," amongst the bushes of Scrubwood ; and he has even sent me a portion of the dead sticks out of which he obtained it ; so that I need scarcely add that the above remarks have been most completely corroborated.

Rhyzopertha bifoveolata, Woll., *Ann. Nat. Hist.* ii. 409 (1858).

Rhizopertha bifoveolata, Id., *Col. Atl.* 232 (1865).

— —, Id., *Col. Hesp.* 110 (1867).

— —, Id., *Ann. Nat. Hist.* iv. 320 (1869).

— —, Melliss, *St. Hel.* 147 (1875).

Habitat in mercatorum repositoriis; mihi non obvia, sed certe ex alienis introducta.

I did not meet with this insect at St. Helena, where, however, it was taken by Mr. Melliss; but there can be no question that the species is merely a naturalized one, and only requires to be searched for in the stores and houses of Jamestown. Like the *R. pusilla*, it seems to be more particularly attached to dried roots, imported as articles of merchandise,—whether whole, or (like ordinary arrow-root) in the form of farina; and indeed it was in a cask of flour that it was introduced, many years ago, into Madeira. I obtained it, however, under circumstances which appeared somewhat more natural, in the interior of St. Iago, in the Cape-Verde group.

In my original diagnosis of this insect, in 1858, I mentioned that the *R. bifoveolata* is rather larger and broader than the common *R. pusilla*, but proportionally not quite so long, as also a little darker, or more piceous, and nearly opaque. Its prothorax is much larger and more globose,—being exceedingly convex, wider and more roughened in front, and with two deep, rounded foveæ or depressions (separated only by a narrow rudimentary dorsal line) in the centre behind. Its elytra are uniformly and closely punctured all over, the punctures being much smaller and more numerous than those of the *R. pusilla*, and without any tendency to be arranged either in striæ or longitudinal rows; and they are rounded and *entire* at the apex, there being no appearance of an oblique truncation; and the antennæ, which are a little paler than the rest of the surface, are somewhat longer and more robust than in that species.

75. *Rhyzopertha pusilla*.

R. angustulo-cylindrica, piceo-ferruginea, subnitida; prothorace semicirculari-cylindrico, scabroso, necnon antice mucronibus aut pliculis transversis asperato; elytris profunde striato-punctatis (punctis magnis), ad apicem obsolete oblique truncatis aut retusis (vix omnino integris); antennis rufo-testaceis; pedibus gracilibus rufo-piceis, tarsis clarioribus.

Long. corp. lin. circa $1\frac{1}{3}$.

Synodendron pusillum, *Fab., Ent. Syst.* v. (Suppl.) 156 (1798).

Rhyzopertha pusilla, *Steph., l. c.* 354 (1830).

Rhyzopertha pusilla, *Woll., Coll. Atl.* 232 (1865).

— —, *Id., Ann. Nat. Hist.* iv. 320 (1869).

— —, *Melliss, St. Hel.* 148 (1875).

Habitat in domibus repositoriisque ad Jamestown, farinas radicesque destruens.

I met with this almost cosmopolitan insect sparingly on outer walls, particularly of warehouses, in Jamestown,—where it appears to have established itself (as it has at Madeira and elsewhere) through the medium of commerce, being particularly partial to farinaceous substances and dried roots. I need scarcely add that it has no real connexion with the true fauna of St. Helena.

Sectio 8. RHYNCHOPHORA.

Fam. 23. TOMICIDÆ.

Genus 42. TOMICUS.

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

76. *Tomicus æmulus*.

T. cylindricus, nitidus, nigro-piceus, pilisque longiusculis suberectis fulvescentibus parce obsitus; prothorace amplo, postice evidenter punctulato, in disco mox ante medium subnodoso-convexo, antice dilatato obtuse rotundato necnon mucronibus asperato; elytris leviter striato-punctatis punctulisque minoribus in interstitiis uniseriatim notatis, ad apicem retusis, parte perpendiculari dentibus sublateralibus duobus subæqualibus (sc. superiore et inferiore) ac perpaucis lateralibus minutissimis granuliformibus utrinque armatâ; antennis pedibusque infuscato-testaceis.

Long. corp. lin. circa $1\frac{1}{3}$.

Tomicus æmulus, *Woll., Ann. Nat. Hist.* iv. 321 (1869).

— —, *Melliss, St. Hel.* 148 (1875).

Habitat in intermediis (rarius editioribus), arbores (præcipue *Podocarpus elongatus*, l'Hér.) perforans.

When I described this species in 1869 I had seen only a single example of it, which was taken by Mr. Melliss but the *habitat* of which was totally unknown to me. During our residence, however, at Plantation I met with it in absolute profusion,—principally boring

into the stems, and beneath the loose outer bark, of the gigantic Cape yews (*Podocarpus elongatus*, l'Hér.); so that it is not impossible that it may have been originally introduced into the island, and have since become completely naturalized. Still I do not feel confident that this is the case; for I have taken it also, though very much more sparingly, even on the central ridge. Like most of the *Tomici*, however, it is a species which uses its wings vigorously; so that, when once established in any country or district, it would very soon spread.

In its general size, outline, proportions, and sculpture, the *T. æmulus* has much the *primâ facie* appearance of the European *T. saxesenii* (which occurs likewise in the Azorean, Madeiran, and Canarian groups); but, as I mentioned in 1869, a closer inspection will show not only that it is a little larger and more pilose, with its prothorax less alutaceous and more distinctly punctulated behind, but that its elytra are more retuse (or perpendicularly truncated) at the apex, and that each of them is armed with (in addition to smaller and granuliform ones) two robust acute spines. This latter character, apart from its more evidently punctulated prothorax and darker hue, will equally separate it from the *T. perforans*, a species closely resembling the *saxesenii*, and which has been found in the Madeiran and Cape-Verde archipelagos,—where, however, in all probability, it has become naturalized through indirect human agencies.

Fam. 24. HYLESINIDÆ.

Genus 43. HYLURGUS.

Latreille, *Gen. Crust. et Ins.* ii. 274 (1807).

77. *Hylurgus ligniperda*.

H. cylindricus, subnitidus, niger sed in elytris obsoletissime sub-picescens (*immaturus* omnino ferrugineus), pilisque erectis (in capite prothoraceque, necnon ad elytrorum apicem, longioribus) cinereo-fulvis vestitus; capite prothoraceque dense et profunde punctatis, illo crasso triangulari-quadrato, hâc elongato, sub-conico, in medio lineâ lævi subcarinulato; elytris densissime et grosse asperato-rugulosis (vix certe punctatis), et obsolete longitudinaliter striatis, ad apicem ipsum leviter truncatis aut retusis; antennis tarsisque piceo-testaceis, femoribus tibiisque (latis, compressis, extus spinulosis) piceis.

Long. corp. lin. 2-2½.

Bostrichus ligniperda, *Fab., Ent. Syst.* i. ii. 367 (1792).

Hylurgus ligniperda, *Woll., Col. Atl.* 250 (1865).

— —, *Id., Ann. Nat. Hist.* iv. 321 (1869).

— —, *Crotch, in Godm. Azor.* 78 (1870).

— —, *Melliss, St. Hel.* 148 (1875).

Habitat pinos emortuas in intermediis rariusque in editioribus, sub cortice laxo erodens.

The common European *H. ligniperda* (which has established itself abundantly in the Azorean, Madeiran, and Canarian archipelagos) is universal beneath the bark of old fir trees at St. Helena, occurring at intermediate and lofty altitudes—where it has doubtless become naturalized, along with the various pines, from Europe. Its thick, cylindrical outline, and elongate, subconical prothorax, added to the long and erect cinereo-fulvescent hairs with which it is clothed (particularly, however, on the anterior and posterior extremities of its body), and its broad, compressed, and externally spinulose tibiæ, will at once distinguish it from every thing else with which we have here to do.

Although in general outline and aspect a little resembling at first sight some of the larger exponents of *Pseudostenoscelis*, nevertheless its total freedom from a hook at its outer tibial angle, its flattened, externally spinulose tibiæ, and the subretuse apex of its elytra will, even of themselves, immediately separate it from that group, and indeed from all the members of the *Cossonidæ*.

I have taken the *H. ligniperda* abundantly at Plantation, as well as in old pine-trees at Cason's and elsewhere.

Fam. 25. COSSONIDÆ.

The excessive importance of the *Cossonidæ* at St. Helena, which number more than a quarter of the entire Coleopterous fauna (so far at least as the latter has hitherto been ascertained), renders it desirable to furnish a short analysis of the groups, in order to facilitate the study of an assemblage of forms which might otherwise be somewhat difficult both to classify and determine. For the actual *species* themselves I must refer to the several diagnoses as given *in situ*; but the following Table will perhaps be found useful in enabling us to recognize the main characters on which the various genera have been established:—

- A. *Rostrum brevissimum, latum, crassum, triangulare. Abdominis segm^{tis} 1^{mo} et 2^{do} lineâ argute divisâ ..* [Subfam. STENOSCELIDES.]
- a. *oculi laterales. elytra postice asperata.*
 β. *funiculus 7-articulatus. oculi valde demissi.*
 Stenoscelis.
 ββ. *funiculus 5-articulatus. oculi sensim prominuli.*
 Pseudostenoscelis.
 aa. *oculi subsuperiores. elytra postice haud asperata.*
 Pachymastax.
- AA. *Rostrum vel breve vel plus minus elongatum et gracile. Abdominis segm^{tis} 1^{mo} et 2^{do} inter se arcte connatis* [Subfam. COSSONIDES et PENTARTHIDES.]
- γ. *funiculus 7-articulatus* }
 Phlœophagus. } [Subfam. COSSONIDES.]
 γγ. *funiculus 6-articulatus* }
 Hexacoptus.
 γγγ. *funiculus 5-articulatus* [Subfam. PENTARTHIDES.]
- δ. *oculi minuti. prothorax subtriangularis.*
 Pentarthodes.
 δδ. *oculi obsoleti, subnulli. prothorax subovalis.*
 Pseudomesoxenus.
 δδδ. *oculi plus minus conspicui.*
 ε. *rostrum breve, triangulare; oculis valde demissis.*
 Isotornus.
 εε. *rostrum vel elongato-subtriangulare, vel breviter parallelum.*
 ζ. *corpus nigrum aut piceum (nec æneum).*
 Microxylobius.
 ζζ. *corpus plus minus æneo-micans.*
 η. *prothorax nunquam grossissime sculpturatus.*
 Acanthomerus.
 ηη. *prothorax grossissime sculpturatus.*
 Eucoptoderus.
 εεε. *rostrum plus minus elongatum, sæpe gracile.*
 θ. *corpus æneo-micans.*
 ι. *inæqualiter (aut semi-) politum, sc. hinc inde nitidum et hinc inde opacum.*
 Chalcotrogus.
 ιι. *æqualiter politum.*
 κ. *funiculi art^o 2^{do} valde elongato.*
 Lamprochrus.
 κκ. *funiculi art^o 2^{do} quam primus paululum longiore; rostro robusto, distorte curvato.*
 Xestophasis.
 θθ. *corpus nullo modo metallicum.*
 λ. *magnum; rostro robusto, distorte curvato.*
 Tapiromimus.
 λλ. *rostro gracili, lineari.*
 μ. *prothorax antice simplex (i. e. truncatus).*
 Tychiorrhinus.
 μμ. *prothorax antice obtuse productus, cuculliformis, caput tegens.*
 Cryptommata.

(Subfam. 1. STENOSCELIDES.)

Genus 44. STENOSCELIS.

Wollaston, *Journ. of Ent.* i. 141 (1861).

Corpus cylindricum, dense sculpturatum, subnitidum; *rostro* brevissimo, crasso, triangulari, *oculis* lateralibus, subreniformibus, valde demissis, *scrobe* brevissimo, fere nullo, ante oculos sito; *prothorace* postice recte truncato, antice distincte constricto, necnon ad latera in medio sinuato; *scutello* minutissimo, punctiformi. *Elytris* antice transversim plicato-rugosis, postice (subito desilientibus, tamen vix subretusis) parce tuberculato-asperatis; *metasterno* mediocri; *abdominis* segmentis 1^{mo} et 2^{do} lineâ argute divisis. *Antennæ* breves, subgraciles; *scapo* brevissimo; *funiculi* (7-articulati, parum compacti) art^o 1^{mo} magno, antice recte truncato; *capitula* abrupto, subrotundato. *Pedes* subgraciles, *antici* omnino, *intermedii* fere omnino contigui, *postici* paulo distantes; *tarsis* elongatis, gracilibus, art^o 1^{mo} elongato, 3^{tio} vix latiore sed minutissime bilobo, ult^{mo} elongato.

The genus *Stenoscelis* was enunciated by myself in 1861 to receive a small and cylindrical *Hylastes*-like Cossonid (apparently conspecific with the present one from St. Helena) which was taken by the late Mr. Bewicke, during the preceding year, at the Cape of Good Hope; and it still makes, as I cannot but believe, the nearest approach to the members of the *Hylesinidæ*, of all the true Curculionids which have as yet been brought to light. Perhaps, indeed, *Pseudostenoscelis* may be said to have a nearly equal claim to be *primâ facie* subosculant between the two groups; nevertheless in the genus now under consideration the rostrum is (if possible) even still shorter and more triangular, the scape is even still more abbreviated, and the elytra are more decidedly asperate; so that on the whole it is best placed in juxtaposition with the exponents of the preceding family.

Since nearly all the St.-Helena members of the *Cossonidæ* which are absolutely and undoubtedly aboriginal seem to possess a 5-jointed funiculus (the only exceptions to that rule being the one which we are now discussing, the *Hexacoctus ferrugineus*, and the European *Phlæophagus æneopiceus* which has manifestly been naturalized), and since, as just mentioned, the *Stenoscelis hylastoides* occurs equally in Southern Africa, it may perhaps be open to inquiry whether the latter may not have been introduced originally from the Cape of Good Hope, and have since completely established itself. At any rate this conclusion is somewhat borne out by its mode of life, inasmuch as it

is only within the intermediate *cultivated* districts that I have hitherto met with it; whereas the closely-resembling *Pseudostenoscelides* are attached more emphatically to the native arborescent *Compositæ*, not only of intermediate but (more particularly) of the loftiest elevations.

78. *Stenoscelis hylastoides*. (Fig. 1.)

S. breviter cylindrica, nigra, fere calva, subnitida; capite prothoraceque sat profunde et densissime punctatis, illo æquali et (una cum rostro) late triangulari, oculis valde demissis, hinc triangulari-quadrato, postice recte truncato, ad latera in medio distincte sinuato; elytris vix (tamen antice evidentius) picescentioribus, striato-punctatis, interstitiis minutissime punctulatis ac rugose seriatim asperatis, asperitate antice plicaturas transversas sed postice tubercula parva acuta efformante; antennis tarsisque ferrugineis, femoribus tibiisque piceis. *Subtus* alutacea, parce subfulvescenti-pilosa, distincte sed leviter punctata.

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

Stenoscelis hylastoides, *Woll.*, l. c. 142, pl. 11. f. 1 (1861).

— —, *Id.*, *Ann. Nat. Hist.* iv. 401 (1869).

— —, *Melliss*, *St. Hel.* 148 (1875).

Habitat in intermediis (præcipue cultis) insulæ, lignum aridum pulverosum et valde antiquum destruens.

I have taken this insect most abundantly within pieces of dry rotten wood, completely dusty and pulverized, as well as in old decayed posts, at Plantation; and it has been found by Mr. P. Whitehead at Woodcot under precisely similar circumstances; but I did not observe that it ascends, like the closely-resembling members of *Pseudostenoscelis*, to the central ridge, to attach itself to the native arborescent *Compositæ*. Perhaps therefore it may be less strictly indigenous than the exponents of that genus, and more particularly so since it is not confined (like them) to St. Helena, but exists likewise at the Cape of Good Hope.

Genus 45. **PSEUDOSTENOSCELIS** (nov. gen.).

Corpus cylindricum, dense sculpturatum, plerumque subnitidum; *rostro* brevissimo, crasso, subtriangulari, *oculis* lateralibus, subrotundatis, *scrobe* brevissimo sed profundo, foveiformi, ante oculos sito; *prothorace* postice recte truncato, antice plus minus constricto, ad latera in medio plus minus sinuato; *scutello* minutissimo, punctiformi; *elytris* antice et postice (subito desilientibus, tamen vix subretusis) parce tuberculato-asperatis; *metasterno* mediocri; *abdominis* segmentis 1^{mo} et 2^{do} lineâ argute divis. *Antennæ* breves subgraciles; *scapo* brevi; *funiculi* (5-articulati,

sublaxi) art^o 1^{mo} magno, antice recte truncato; *capitula* abrupto, subrotundato. *Pedes* subgraciles, *antici* omnino, *intermedii* fere omnino contigui, *postici* paulo distantes; *tarsis* elongatis, gracilibus, art^o 1^{mo} elongato, 3^{io} vix latiore sed minutissime bilobo, ult^{mo} elongato.

A ψευδος, falsus, et *Stenoscelis*.

Obs.—Genus primâ facie *Stenoscelidi* simillimum, sed differt funiculo 5-, nec 7-articulato, rostro paululum minus triangulari, oculis minus demissis, scapo paulo minus brevi, elytrisque antice minus grosse plicato-asperatis.

It is somewhat remarkable that the extreme resemblance of the members of this most important St.-Helena group to those (from the Cape of Good Hope and Japan) which I described a few years ago under the generic name of *Stenoscelis* should have hitherto so completely deceived me that I had no hesitation whatever in referring the whole of them to the latter assemblage. Perhaps, however, this is not altogether inexplicable, seeing that it is only now that I have overhauled my recently acquired material from St. Helena with sufficient precision to perceive that the species which have as yet been brought to light differ so essentially from the South-African and Japanese ones as to possess a funiculus which is composed of only five joints instead of seven. Yet, although scarcely differing *primâ facie* from the rest (except, of course, specifically), one at any rate of these *Hylastes*-like forms is a veritable *Stenoscelis* (having a 7-jointed funiculus, and sundry other small distinctive characters to which I have already called attention); and this one, the *S. hylastoides*, was acknowledged by myself (*vide* 'Ann. Nat. Hist.' iv. 322, 1869) as occurring in St. Helena, no less than at the Cape of Good Hope,—the only marvel being, at any rate to my mind, that six closely resembling species which are due to our late explorations in the island should by any possibility be generically distinct from the South-African one. Yet this certainly appears to be the case; and I have consequently cited them under a separate genus, as above enunciated.

With this single radical exception of a 5-jointed funiculus (instead of 7-), the members of the present genus do not differ materially from those of *Stenoscelis*. Their rostrum is perhaps not quite so triangular, and (which is important, their eyes are less completely *sunken* or depressed; and their scape, although short, is not quite so abnormally reduced in length; added to which they have a rather

more distinct, though very abbreviated, scrobs (or fovea) for the reception of their antennæ, and their elytra, although roughened, are *less* asperate (particularly at the base); but the same cylindrical contour and laterally-sinuated prothorax, and the same apically-desilient elytra, slender legs, and elongated feet obtain in both groups*.

§ 1. *Opaca* ; *prothorace antice fere integro*.

79. *Pseudostenoscelis sculpturata*, n. sp.

P. breviter cylindrica, latiuscula, crassa, nigra, fere calva; capite prothoraceque opacis, sat profunde et densissime punctatis punctis subconfluentibus), illo (una cum rostro) late triangulari, in medio leviter canaliculato, hâc longiusculo, triangulari-ovato, postice subemarginato-truncato, ad latera in medio obsolete sinuato; elytris antice singulatim arcuatis, vix minus opacis, profunde punctato- et tuberculato-striatis (punctis sc. remotis, grossis, et superne asperatis, tubercula efficientibus), interstitiis minutissime punctulatis ac elevatis; antennis tarsisque (art° 3^{to} fere simplici) ferrugineis, femoribus tibiisque piceis. *Subtus* parce subfulvescenti-pilosa, et profunde punctata.

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

Habitat truncos *Dicksoniæ arborescentis*, l'Hérit., antiquos emortuos putridos, in regionibus valde excelsis, rarissima.

Evidently one of the rarest of the St.-Helena Coleoptera, three examples only having been brought to light during our sojourn in the island,—one of which (found by Mrs. Wollaston between Actæon and Diana's Peak) was dead and imperfect, while another was taken by myself in the centre of a rotten stem of a tree fern, and the third from beneath a piece of damp decayed wood on the very summit of nearly the highest portion of the central ridge. It is clearly therefore one of the aboriginal forms, and in all probability undergoes its transformations within the putrid trunks of the magnificent *Dicksonia arborescens*. Although generically identical, it is totally unlike

* Although possessing a 5-jointed funiculus, I cannot place the present genus and the following one (in a general arrangement of the *Cossonidæ*) amongst the Pentarthrideous types (in which that organ is essentially 5-articulate), inasmuch as the whole of their other features affiliate them most unmistakably with the somewhat osculant forms which terminate the entire family and serve to articulate it on to the Hylastideous and Scolytideous groups. Indeed their manifestly close relationship (as already pointed out) with *Stenoscelis*, in which the funiculus is 7-jointed, forbids altogether any attempt to locate them except in juxta-position with that genus; and they must consequently be looked upon (like *Pentamimus* from Australia, and *Tomolips* from Mexico) as *exceptional* members (in which the funiculus is composed of 5, instead of 7, articulations) of the particular sub-family in which I have located them.

any of the other species of *Pseudostenoscelis* which have hitherto been discovered,—its large size, as compared with all of them except the *P. asteriperda*, and broad, thickened, shortly-cylindric body, in conjunction with its completely opaque head and prothorax (the densely-set punctures of which have a tendency to be subconfluent), and very coarsely sculptured elytra, which have their interstices elevated and their striæ very wide and deep, the punctures of the latter being large and remote and so completely *asperate* (or overhung by their raised anterior edge) as to appear, when viewed from above, more like sharp and isolated tubercles than any thing else, giving it a character which it is impossible to mistake. Its prothorax, too, is well-nigh simple anteriorly, being almost unconstricted.

§ 2. *Nitidula*; *prothorace antice plus minus constricto*.

80. *Pseudostenoscelis asteriperda*, n. sp.

P. cylindrica, crassa, valde alata, æneo-nigra aut æneo-picea, nitidiuscula, in elytris sensim breviter subfulvescenti-pilosa; capite prothoraceque sat profunde et dense punctatis, illo late subtriangulari, in medio leviter canaliculato, hinc triangulari-ovato, antice paulum constricto, ad latera in medio sinuato; elytris transversim rugulosis, confuse substriato-punctatis (punctis superne asperatis, tubercula, postice magna acuta, efficientibus), interstitiis confuse uniseriatim punctulatis; antennis tarsisque (elongatis, art^o 3^{to} distincte bilobo, ult^{mo} elongato) ferrugineis, femoribus tarsisque piceis. *Subtus* parce fulvescenti-pilosa, et grosse sed haud profunde punctata.

Long. corp. lin. $2\frac{1}{3}$ –3.

Habitat in editioribus, truncos ramulosque *Asteris gummiferi* et *Burchellii*, Hk. f., antiquos emortuos perforans.

With the exception of the *P. sculpturata* (which about equals it in bulk), the present *Pseudostenoscelis* is very much the largest member of this genus which has hitherto been brought to light; and it seems to be peculiar, so far as I have observed, to the rotten wood of the two rare arborescent *Asters*—the *A. gummiferus*, Hk. f. (or “Little Bastard Gumwood”), and the *A. Burchellii*, Hk. f. It is consequently a species of a high elevation, as regards its range; indeed the only locality in which I have met with it (though there in tolerable profusion) is on the almost inaccessible and windy sides of the great Sandy-Bay crater just beyond West Lodge, near to the old Picquet House and overlooking Lufkins. In size and general

outline it is at first sight a little suggestive of the common *Hylurgus ligniperda*; but this, of course, is the merest superficial analogy.

Apart from its comparatively large bulk, this thick and cylindrical *Pseudostenoscelis* may be known by its *ænescent*, or brassy, tinge, by its confusedly sculptured elytra (the hinder asperities of which are exceedingly acute and prominent), and by (like the *P. longitarsis*) its greatly elongated feet—the third joint of which is more deeply and distinctly bilobed than is the case in any of the other species.

81. *Pseudostenoscelis longitarsis*, n. sp.

P. cylindrica, angustula, nigra aut piceo-nigra, nitidiuscula, ubique (sed præsertim in elytris) fulvescenti-pilosa; capite prothoraceque sat profunde et dense punctatis, illo lato crasso, quadrato-triangulari, in medio leviter canaliculato, oculis prominulis, hâc longiusculo, cylindrico-ovato, pone apicem distincte constricto, ad latera in medio obsolete sinuato, in disco lineâ lævi instructo; elytris sæpius antice evidentius picescentibus, transversim rugulosis, substriato-punctatis (punctis superne asperatis, antice plicaturas transversas sed postice tubercula acuta efficientibus), interstitiis minutissime uniseriatim punctulatis; antennis tarsisque (elongatis, art^o 3^{io} minutissime bilobo, ult^{mo} elongato) ferrugineis, femoribus tibiisque piceis. *Subtus* dense sed vix grosse punctata. Long. corp. lin. $1\frac{1}{2}$ –2.

Habitat præcipue in intermediis insulæ, *Commidendron robustum*, DC. (anglice “Gumwood”), et *Asterem glutinosum*, Roxb. (anglice “Scrubwood”) destruens; ad Plantation, Thompson’s Wood, Peak Gut, necnon ad et juxta promontorium “the Barn” dictum, lecta.

This is a species which, so far as I have observed, is more particularly attached to the rotten trunks and branches of the gumwood (*Commidendron robustum*, DC.), and also to those of the scrubwood (*Aster glutinosus*, Roxb.),—Mr. P. Whitehead having lately communicated a large number of examples which he appears to have taken out of the decayed stems of the latter on, and in the vicinity of, “the Barn.” Those that I have myself met with were broken out of dried sticks of the true gumwoods which are still left in the grounds at Plantation; and I also obtained it, from similar trees, in Thompson’s Wood and Peak Gut; but it does not seem to ascend, so far as I am aware, into the extremely elevated parts of the great central ridge.

The *P. longitarsis* is a rather narrow species in proportion to its bulk (which ranges next in order after the *P. sculpturata* and

asteriperda); and it is also more pilose than any of the others,—its elytra especially being studded with exceedingly fine and suberect cinereo-fulvescent hairs. Its head is convex; and its prothorax (which is normally rather elongate, and which is only *obsoletely* sinuated at the sides, although conspicuously constricted anteriorly) has a bright unpunctured line or space (not always equally distinct) on the centre of its disk; and its elytra are nearly as much transversely-plicate or asperated, at their base, as in the *Stenoscelis hylas-toides*. Its feet, too, are considerably lengthened, particularly the terminal joint—indeed quite as much so (relatively) as in the *P. asteriperda*, though their third one is much less bilobed than in that insect.

82. *Pseudostenoscelis alutaceicollis*, n. sp.

P. præcedenti similis, sed minor, angustior, antice paulo minus pilosa; prothorace (antice vix minus constricto) alutaceo, nec nitido, et levius punctato, lineâ discali læviore vix (etiam obsolete) instructo, sed utrinque in disco postico obsoletissime (vix perspicue) subnoduloso; elytris subopacioribus, et multo minus rugose sed magis confuse sculpturatis; tarsorum artº 3^{tiº} paulum minus elongato.

Long. corp. lin. $1\frac{1}{4}$ – $1\frac{1}{3}$.

Habitat locos editiores, juxta Diana's Peak et mox supra West Lodge parcissime deprehensa.

This is a rather obscure species, of which I possess only five examples, all of which I took on the central ridge,—four of them in the direction of Diana's Peak, and the other on the somewhat less elevated portion towards the south-west immediately above West Lodge. Its nearest ally is clearly the *P. longitarsis*; nevertheless it is considerably smaller and relatively narrower than that insect, and *anteriorly* it is less pilose (indeed almost free from pubescence); its prothorax (which is a trifle less constricted in front) is *alutaceous*, and therefore less shining, as well as more finely and lightly punctured; and it has no traces (or scarcely any) of an unpunctured discal line, though there are very obscure indications on either side of its posterior disk of a small rounded (often quite inappreciable) subtuberculiform space; its elytra (which are likewise somewhat less shining than in the *P. longitarsis*) are both *much* less roughly and more confusedly sculptured; and the last joint of its feet is not *quite* so elongate.

83. *Pseudostenoscelis compositarum*, n. sp.

P. cylindrica, nigra aut sæpius fusco-nigra (interdum obsoletissime, vix perspicue, subænescens), nitidiuscula, fere calva; capite prothoraceque sat profunde et dense punctatis, illo subtriangulâri, fere integro, hâc breviusculo, triangulâri-quadrato, ad apicem leviter constricto, ad latera in medio distincte sinuato; elytris interdum antice obsolete picescentioribus, regulariter punctato-striatis (punctis antice vix, et etiam postice paulo solum, asperatis), interstitiis convexis et minute uniseriatim punctulatis; antennis tarsisque (art^o 3^{to} minutissime bilobo) ferrugineis, femoribus tibiisque piceis. *Subtus* parce et leviter punctata.

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

Habitat lignum antiquum, et sub cortice laxo emortuo, *Compositarum* arborescentium (præsertim *Petrobii arborei*, R. Br., et *Melanodendronis integrifolii*, DC.); in locis valde elevatis degens.

The present *Pseudostenoscelis* is essentially a species of the highest elevations,—occupying the districts characterized by the various cabbage-trees, to which it would seem to be attached. Along the great central ridge I have taken it at times in considerable profusion, particularly after the early summer rains (about the beginning of February),—not only towards Diana's Peak and Actæon, but likewise at Cason's and (still more abundantly) at High Peak; indeed on one occasion I met with it at the latter, beneath the dead and loosened bark of the "whitewood cabbage-tree" (*Petrobium arboreum*, R. Br.), in countless numbers. It has also been found by Mr. P. Whitehead along what is called the "Cabbage-tree Road."

The *P. compositarum* is, on the average, a little smaller than the *longitarsis*, and (except on the hinder part of the elytra) it is well-nigh free from pile; its head is not quite so broad; its prothorax (which is almost, or even entirely, devoid of all appearance of a bright discal line) is relatively shorter, and much more sinuated on either side, with its transverse constriction more decidedly apical, and its punctures not quite so coarse; and its elytra (which are much less rugulose, being almost free from asperities except posteriorly, whilst even there they are somewhat minute) are more regularly punctate-striate,—the striæ being deeper and better marked, and the interstices more convex. Its tarsi, likewise, although long, are not quite so lengthened as in that species; and there is occasionally a brownish, as well as an obsolete subænescent tinge, over the entire surface.

84. *Pseudostenoscelis minima*, n. sp.

P. præcedenti subsimilis, sed minor et subrugosius sculpturata, elytris præsertim magis asperatis necnon ad basin ipsam sæpius picescentioribus, antennarum capitulo sensim minore, tarsorumque art^o 3^{io} fere simplici (vix etiam minute bilobo).

Long. corp. lin. 1-1 $\frac{1}{3}$.

Habitat in intermediis insulæ, lignum antiquum *Commidendron robusti*, DC. (anglice "Gumwood") præcipue destruens.

This is the smallest member of the present genus which has hitherto been found; and I am inclined to suspect that it subsists normally on the true gumwood (*Commidendron robustum*, DC.), though the disappearance of that tree in so many of its former quarters has compelled the insect to adopt a different mode of life. At any rate I have taken it amongst the gumwoods at Thompson's Wood and in Peak Gut; whilst its occurrence at Plantation and Oakbank, in a region where there can be little doubt that the gumwood was once supreme, even though now attached to other trees (as, for instance, the "Port-Jackson willow" or *Acacia longifolia*, Willd., and the "Cape coral-tree" or *Erythrina caffra*, Thunb.), is quite in accordance with my supposition as to its original *habitat*. As a necessary consequence of this hypothesis (if correct), the species should be essentially one of *intermediate* altitudes; and this certainly appears to be the case, as I am not sure that I have ever met with it in the strictly cabbage-tree region of the high central ridge,—where the *P. compositarum* frequently swarms.

Judging from about 25 examples which are now before me, the *P. minima* may be known from the *P. compositarum*, apart from its diminished bulk, by being altogether (in proportion to its size) a little more roughly sculptured (the elytra especially being more asperate, as well as *usually* more picescent at their extreme base), by its antennal club being relatively smaller, and by the third joint of its feet being almost simple (or scarcely even *minutely* bilobed).

Genus 46. **PACHYMASTAX** (nov. gen.)

Corpus fere ut in *Pseudostenoscelis*, sed majus, multo crassius, minus cylindricum (sc. magis elongato-ovatum), magis opacum, setulisque brevissimis suberectis ubique obsitum; *rostro* sublongiore (tamen brevissimo), *oculis* minus lateralibus, sc. magis superioribus, superne sensim magis approximatis, *scrobe* longiore (tamen brevi), valde profundâ, rectâ, argute determinatâ, et infra oculos breviter ductâ;

prothorace magis ovali (antice et postice æqualiter angustiore), antice vix constricto, ad latera integro (nec in medio sinuato); *scutello* nullo; *elytris* ubique æqualiter (nec antice et postice magis) granulato-asperatis, apice regulariter rotundatis (nullo modo subito desilientibus); *metasterno* brevior, sc. brevissimo. *Antennæ* paulo longiores, *scapo* præsertim multo longiore, *funiculi* (laxi) art^o 1^{mo} antice minus recte truncato.

A *παχὺς*, crassus, et *μύσραξ*, os.

The rare and most extraordinary insect for which the present genus is proposed is still more unlike the normal members of the *Cossonidæ* than even *Stenoscelis* and *Pseudostenoscelis*; yet, at the same time, its somewhat less abbreviated (though equally thickened) rostrum, its longer scape, its less cylindrical (although extremely convex and incrassated) body, and the fact of its elytra not being more asperated behind than elsewhere, nor more apically-desilient than in the ordinary Curculionids, combine, in reality, to remove it a little further than those two genera from the sub-Hylastideous, osculant (but nevertheless strictly Rhynchophorous) forms which connect this family with the preceding one.

From *Pseudostenoscelis* proper, *Pachymastax* recedes in the comparatively large, incrassated, and less parallel (and therefore less cylindric) form of the curious species which hitherto represents it, which is sparingly studded all over with very short, erect setæ,—those on the elytra being beautifully golden or fulvescent. Its rostrum (although very thick and abbreviated) is not quite so reduced in length as is the case in that genus; the eyes are more superior in position, or less lateral; and the antennal scrobs, although short, is very much deeper, more decidedly expressed, and very sharply defined,—being directed, moreover, considerably below the eye, instead of towards the middle of it. Its prothorax is more oval (being about equally narrowed before and behind), as well as less constricted anteriorly and not sinuated at the sides. Its scutellum is altogether untraceable; its metasternum is considerably more abbreviated; its elytra are well-nigh unstriate, but uniformly roughened all over with small and well-defined tubercles or granules (not being more asperated before and behind than elsewhere, nor at all unusually desilient, or suddenly sloped off, at their extremity); and its antennæ have their scape conspicuously longer.

85. *Pachymastax crassus*, n. sp.

P. elongato-ovatus, crassus, convexus, niger; capite nitido, calvo, profunde punctato, rostro brevi subtriangulari-quadrato postice convexo, oculis subsuperioribus, demissis; prothorace elytrisq. opacis, illo subovali, valde profunde densissimeque punctato setulisque brevissimis erectis fulvo-nigris obsito, his sensim longius grossiusque erecte setulosis (setulis læte aureo-fulvescentibus), ubique et æqualiter granulato- aut tuberculato-asperatis, sed vix (aut etiam obsoletissime) longitudinaliter striatis; antennis tarsisque rufo-piceis; femoribus tibiisque nigro-piceis. *Subtus* antice opacus, postice nitidus, ubique (præsertim in metasterno abdominisque art^{is} 1^{mo} et 2^{do}) profunde et grosse punctatus.

Long. corp. lin. 3-4½.

Habitat truncos ramulosque *Compositarum* arborescentium antiquos emortuos (præsertim *Asteris gummiferi*, Hk. f.), in editioribus, rarissimus.

I have already pointed out what the principal characters are by which this thickened and coarsely (though evenly) sculptured insect may be recognized; and I will merely add that its somewhat shining head, whilst the prothorax and elytra are opaque, and uniformly dark surface, which, however, is relieved on the elytra by the fulvo-golden hue of the short and erect setæ with which they are studded, will serve additionally to distinguish it.

The *P. crassus* is one of the rarest, and most unmistakably indigenous, of the St.-Helena Coleoptera; and if I am right in suspecting that it is more particularly attached to the decayed trunks and branches of the *Aster gummiferus* or "little bastard gumwood," there is a fair chance of its becoming before long totally extinct. At any rate I have captured it from out of rotten sticks of that singular shrub at the extreme edge of the tremendous precipice immediately above West Lodge which forms the side of the great Sandy-Bay crater, as well as from the interior of dead stems of the same species a little further along the ridge and overlooking Lufkins. And I also met with it on the well-nigh perpendicular and almost inaccessible slopes behind High Peak, overlooking Peak Gut; but I am not quite sure that the pieces of wood which produced it in that particular instance were those of the *Aster gummiferus*, as they may possibly have belonged to the *Petrobium arboreum*, R. Br., or "whitewood cabbage-tree."

(Subfam. 2. COSSONIDES.)

Genus 47. **PHLÆOPHAGUS.**Schönherr, *Gen. et Sp. Curc.* iv. 1047 (1838).86. **Phlæophagus æneopiceus.**

P. cylindrico-oblongus, piceo-æneus, nitidus, calvus; capite (cum rostro) dense punctulato; prothorace subovato, grosse et profunde punctato, ad basin ipsam filo-marginato necnon in medio obsolete foveolato-impresso; elytris (prothorace paulo latioribus) basi recte truncatis ac distincte filo-marginatis profunde striato-punctatis, interstitiis minutissime parceque punctulatis; antennis (gracilibus, funiculi art^o 2^{do} sequentibus sensim longiore) tarsisque ferrugineis, femoribus tibiisque rufo-piceis.

Mas rostro sensim brevior, crassior, et vix densius punctato quam in fœmineo.

Long. corp. lin. circa $1\frac{1}{2}$.

Phlæophagus æneopiceus, *Bohem.*, in *Schön. Gen. Curc.* viii. 2. 278.

— —, *Duval, Gen. Col. Curc.* t. 30. f. 143 (1854).

— —, *Woll., Trans. Ent. Soc. Lond.* 654 (1873).

Habitat in cultis intermediis; sub ligno *Pini* recenter secato tria specimina collegi.

This is the only Cossonid out of the fifty-six which have hitherto been detected at St. Helena which is certainly and without doubt naturalized,—the *Stenoscelis hylastoides* being merely *questionable* on account of its occurring likewise at the Cape of Good Hope. It is singular, however, that *both* of these species (although as widely removed from each other, in affinity, as it is possible to be) offer the only exceptions in the subfamily as regards their funiculus—which is 7-jointed, instead of being composed (as in the whole of the other St.-Helena members except the *Hexacoptus ferrugineus*, the funiculus of which is 6-articulate) of only five articulations. But, whatever be the case as regards the original introduction (or not) of the *Stenoscelis hylastoides*, there can be no question whatever that at any rate the common European *P. æneopiceus* must have been accidentally imported into the island,—in all probability along with trees and shrubs. It would appear, however, to be of the greatest rarity in the island, the only examples which I have as yet seen being three which were found by myself at the Hermitage (near Plantation) beneath a solid block of felled pine. Most likely, therefore, it is the fir trees to which the species is attached.

The St.-Helena exponents of this *Phlæophagus* are a little more brassy, and just perceptibly more coarsely punctured, than English ones which are now before me; but in every thing essential they are inseparable from their more northern representatives.

Genus 48. **HEXACOPTUS** (nov. gen).

Corpus cylindrico-fusiforme, subopacum, fere calvum, et fere esculpturatum; *rostro* longiusculo, sublineari sed postice subconstricto-angustiore, in medio convexo, *oculis* parvis, *scrobe* infra oculos ductâ; *prothorace* subovato, antice integro; *scutello* obsoleto; *elytris* elongato-subovatis basi recte truncatis; *metasterno* breviusculo, et (una cum abdominis segmento 1^{mo}) paululum longitudinaliter concavo; *abdominis* segm^{tis} 1^{mo} et 2^{do} inter se arctissime connatis (lineâ vix distinctâ divis). *Antennæ* mox ante medium rostri insertæ, crassiusculæ; *funiculo* 6-articulato, crasso subcompacto, art^o 2^{do} brevi minuto, 3^{tio} magno crasso subquadrato, reliquis tribus latiusculis transversis; *capitulo* ovali et haud abrupto. *Pedes* crassi, *antici* fere omnino contigui, *intermedii* paululum et *postici* magis (tamen haud remote) distantes; *tibiis* ad angulum internum in spinulam minutissimam productis; *tarsis* crassiusculis, art^o 3^{tio} latiusculo et distincte bilobo.

Ab ἐξ, sex, et κόπτω, seco.

Even at first sight the Cossonid for which the present genus is erected may be known by its cylindric-fusiform outline, its opaque, ferruginous, almost unsculptured, and nearly bald surface, its small eyes, incrassated limbs, and by its rather long and *posteriorly*-narrowed rostrum,—which appears, consequently, to be a little widened about the middle (particularly, however, in the male sex), and slightly gibbose, or convex, in that particular part. Nevertheless its most salient feature consists in the construction of its funiculus, which is not only considerably thickened and *somewhat* compact but is composed of *six* articulations,—of which the second is extremely reduced in bulk (it being short and small), whilst the *third* one is anomalously increased, broad, and subquadrate. This modification of the funiculus-joints is most eccentric; and I am acquainted with no other Cossonid in which the third one is thus abnormally developed at the expense of the (usually more elongated) second. Amongst other points worth noting, the anterior coxæ of *Hexacoptus* are as nearly as possible contiguous, whilst even the intermediate ones are not far apart, and the third articulation of its feet is rather distinctly widened and bilobed.

87. *Hexacoptus ferrugineus*, n. sp.

H. cylindrico-fusiformis, subopacus, fere calvus, ferrugineus; rostro (a capite lineâ subdiviso) longiusculo, sublineari sed postice subconstricto-angustiore, in medio (præsertim in ♂) paulo ampliatis subconvexo, minute et dense punctulato, oculis parvis; prothorace elytris (basi filo-marginatis) fere esculpturatis, his obsoletissime longitudinaliter substriatis; antennis pedibusque crassis, his capitulo paulo clarioribus; tarsorum art^o 3^{io} latiusculo et distincte bilobo.

Long. corp. lin. $1\frac{1}{4}$ – $1\frac{2}{3}$.

Habitat editiores insulæ, inter *Filices* præcipue deprehensus.

It is unnecessary to point out afresh what the characters are which serve to distinguish this Cossonid, even at first sight, from the others with which we have here to do,—its generic and specific characters being alike referred to in the observations which I have given above. It is an inhabitant essentially of the higher altitudes, and (although occurring at intervals along the whole central ridge) one which is decidedly scarce,—about thirty-six examples being all that I was able to obtain. Although many of them were captured accidentally in the sweeping-net, I am inclined to suspect that it is not the arborescent *Compositæ* to which the insect is normally attached, nor yet the tree ferns (for I have taken it at West Lodge and at Cason's, which are rather below the region of the *Dicksonias*), but perhaps one of the other large ferns,—such as the *Diplazium nigro-paleaceum*, Kunze, the thick masses of which cluster almost everywhere from about 2500 feet above the sea to the extreme summits of the peaks. This, however, is merely a conjecture; though it is certain that I have frequently beaten the *H. ferrugineus* out of the dead and blackened plants of the *Diplazium* in various localities. My examples are principally from the vicinity of Diana's Peak and Actæon; but a few were captured at Cason's, High Peak, and West Lodge.

(Subfam. 3. PENTARTHRIDES.)

Genus 49. *PENTARTHRODES* (nov. gen.).

Corpus cylindrico-subfusiforme, nitidum, calvum, aut nigrum aut piceo-nigrum, angustum; rostro vel sublineari, vel brevius crassius subtriangulati, oculis minutissimis, rotundatis, tuberculiformibus, sed haud obsoletis, scrobe infra oculos ductâ; prothorace magno, elongato, subtriangulati (sc. versus basin latiore), antice

leviter subconstricto; *scutello* obsoleto; *elytris* cylindrico-subellipticis, ad basin conjunctim subarcuato-truncatis; *metasterno* breviusculo, vel simplici, vel (in specie typicâ) una cum abdomine ad basin (distincte in ♂, minus evidenter in ♀) late longitudinaliter concavo; *abdominis* segmentis 1^{mo} et 2^{do} inter se arcte connatis (lineâ vix distinctâ divisâ), segm^{to} ult^{mo} vel simplici, vel (ut in specie typicâ) foveâ mediâ rotundatâ (distincte in ♂, minus evidenter in ♀) impresso. *Antennæ* ante medium rostri insertæ; *funiculo* 5-articulato. *Pedes* robusti, *anteriores* paulo, sed *postici* magis distantes; *tibiis* ad angulum internum in spinulam minutissimam productis; *tarsis* brevissimis, crassiusculis, art^o 3^{io} præcedentibus paulo latiore et minute sub-bilobo.

A *Pentarthrum*, et εἶδος, aspectus. [Typus *Pentarthrodes dicksoniæ*.]

In their general contour and aspect, particularly as regards their *subtriangular* prothorax, the two members of this genus which have hitherto been detected, and both of which seem to be peculiar to the rotten stems of the old tree ferns, are very suggestive at first sight of *Pentarthrum*; nevertheless the obsolescence of their scutellum and the excessive minuteness of their eyes, in conjunction with their somewhat differently shaped rostrum, will at once separate them from that group. In reality they have far more in common with *Pseudomesoxenus*, the scutellum of which is likewise absent; but the decided presence of eyes, however diminutive, added to their more triangular (or *posteriorly wider*) prothorax, their basally-subarcuated elytra, their more robust legs, and their thicker feet (the third joint of which is appreciably a little broader than the preceding ones, and minutely sub-bilobed instead of being simple), will separate it equally from the exponents of that genus. Moreover, in at all events *one* of the species (the *P. dicksoniæ*) there is a longitudinal concavity (particularly, however, in the male sex) extending down the (much shorter) metasternum and abdominal base, as well as a large rounded fovea on the terminal segment.

§ 1. *Rostrum longiusculum, subparallelum. Metasternum et abdomen ad basin (præcipue in ♂) longitudinaliter impressa, necnon abdominis segm. ultimum (præcipue in ♂) rotundate foveolatum.*

88. *Pentarthrodes dicksoniæ*, n. sp.

P. cylindrico-fusiformis, niger (interdum piceo-niger), nitidus; rostro minutissime sed vix dense punctulato; prothorace magno, elongato, subtriangulari, postice lato, argute et dense sed haud profunde punctato; elytris subellipticis, basi conjunctim sub-

arcuato-truncatis, subconvexis (aut subarcuatim decurvis), striato-punctatis, interstitiis depressis et minute uniseriatim punctulatis; antennis pedibusque longiusculis, crassis, rufo-piceis. *Subtus* vix subalutaceus, punctatus.

Mas rostro subbreuiore et paulo crassiore quam fœmineum, antennis sensim magis versus apicem insertis; *subtus* paulo levius punctatus ac profundius impressus.

Long. corp. lin. $1\frac{1}{2}$ –2.

Habitat intra truncos *Dicksoniæ arborescentis*, l'Hérit., antiquos emortuos putridos, in locis humidis valde elevatis.

This is essentially an insect of the highest altitudes, and one which is quite peculiar to the interior of the fibrous stems of the old and putrid tree ferns,—where it is often exceedingly common, though unless searched for under those particular circumstances it would undoubtedly be altogether overlooked. Its comparatively elongated and more parallel rostrum and larger size give it more the *primâ facie* appearance than the following species of a true *Pentarthrum*; nevertheless, apart from its blacker hue, I have already mentioned what the particular characters are which immediately separate it from the members of that genus.

We met with the *P. dicksoniæ* (which was first captured by Mr. Gray) on the high central ridge, about Actæon and Diana's Peak,—usually by bringing home portions of the dead trunks of the tree ferns, and breaking them up carefully over a white cloth. By this method I obtained it both in the imago and larva states; and it has been found in the same manner by Mr. P. Whitehead.

§ 2. *Rostrum sensim brevius ac magis triangulare. Corpus subtus integrum (nec in ♂ nec in ♀ impressum).*

89. *Pentarthrodes filicum*, n. sp.

P. fusiformi-cylindricus, piceo-niger, subnitidus; rostro minutissime et dense punctulato; prothorace magno, elongato, subtriangulâri, convexo, postice lato, argute, densissime, et profunde punctato, ad basin ipsam in medio subito desiliente, foveam parvam subtriangularem (aut concavitatem obsoletam) efficiente; elytris subelliptico-cylindricis, basi conjunctim subarcuato-truncatis, profunde punctato-striatis, interstitiis paulo convexis ac minutissime uniseriatim punctulatis; antennis pedibusque breviusculis, crassis, rufo-piceis. *Subtus* vix subalutaceus, profunde denseque punctatus. *Mas* rostro subbreuiore et paulo crassiore quam fœmineum, antennis sensim magis versus apicem insertis.

Long. corp. lin. $1-1\frac{1}{2}$.

Habitat in locis similibus ac præcedens, una cum illo degens, sed multo rarior.

The *P. filicum* is a very much rarer species than the *dicksoniæ*; nevertheless its mode of life is precisely similar,—occurring as it does within the damp putrid stems of the old tree ferns. This is most unmistakably its normal *habitat*, as has been proved to a demonstration both by Mr. P. Whitehead and myself on the high central ridge, where we have taken it sparingly, on several occasions, towards Diana's Peak and Actæon. Yet this exclusiveness in its *modus vivendi* has a slight doubt cast upon it by the fact that, unless I am greatly mistaken, I certainly met with a single example at Thompson's Wood,—a locality which is far below the region of the Dicksonias, and which belongs in reality to the zone which is characterized by the *Gumwoods*. I merely mention this as a point which demands further inquiry; for there can be no question whatever that the *P. filicum* is as essentially attached to the tree ferns as the *P. dicksoniæ* is, and I feel it just possible therefore that my sweeping-net, which was in constant operation on the central ridge and elsewhere, may have harboured the specimen (unknown to me) to which I have just called attention, and that I may perhaps have simply *found* it therein while collecting at Thompson's Wood. At least some such explanation as this seems to me to be not altogether improbable.

Although the largest examples of it almost equal in dimensions the most stunted ones of the *P. dicksoniæ*, the present species is nevertheless on the average very much smaller than the latter; and it is also less black (or a little more picescent), as well as less shining and more deeply sculptured. Both its rostrum and its limbs are relatively less elongated, the former being also more triangular (or less linear) in outline; and there is no appearance beneath the body, in either sex, of the longitudinal concavity which is so conspicuous in the males (and which is slightly traceable even in the females) of the *P. dicksoniæ*; added to which, its elytra have their striæ very much deeper, and their interstices more convex. But one of its most constant characters (though by no means very conspicuous unless the insect be viewed *obliquely* under a strong lens, and in a favourable light) consists in the fact that the centre of the *extreme* base of its prothorax is somewhat desilient,—so as to shape out a small, rounded, or subtriangular, foveiform concavity, or obsolete

impression, which, although obscure, will be found (when rightly looked for) never to be absent.

Genus 50. PSEUDOMESOXENUS.

Wollaston, *Trans. Ent. Soc. Lond.* 453 (1873).

Corpus cylindricum (rarius subfusiformi-cylindricum), nitidum, calvum, piceo-castaneum, angustum; *rostro* breviusculo, crassiusculo, elongate subtriangulari, *oculis* omnino obsoletis (rarius minutissime subperspicuis); *prothorace* magno, subovali, antice integro (vix constricto); *scutello* obsoleto; *elytris* plus minus cylindricis, ad basin recte truncatis; *metusterno* longiusculo, et, una cum abdomine, simplici (nec longitudinaliter concavo); *abdominis* segm^{tis} 1^{mo} et 2^{do} inter se arcte connatis (lineâ vix distinctâ divisis). *Antennæ* ante medium rostri insertæ, breviusculæ; *funiculo* 5-articulato. *Pedes* breves, *anteriores* paulo sed, *postici* sat late distantes; *tibiis* ad angulum internum in spinulam minutissimam productis; *tarsis* brevibus, art^o 3^{io} parvo, simplici.

The minute Cossonid for the reception of which I proposed the present genus four years ago was described by myself in 1869 (*vide* 'Ann. Nat. Hist.' iv. 410) as an aberrant *Pentarthrum*, in which the eyes and scutellum are obsolete; and inasmuch as the original example (taken by Mr. Melliss) was unique, it was not until our late visit to the island that I was enabled to perceive that the group is in reality aboriginal, and an extremely significant one in the Coleopterous fauna of St. Helena. Indeed two additional exponents have already been brought to light; and we may confidently expect that others will yet occur.

Apart from the diminished bulk of the species which compose it, and their obsolete scutellum and eyes, the present genus may be known from *Pentarthrum* by its rostrum being more *triangular* (or less parallel), and by its prothorax being more oval, or less widened *posteriorly*; and it is further remarkable for the shortness of its feet, the third joint of which is small and simple.

A word or two perhaps may be necessary concerning the eyes of this singular little genus, which I have defined as strictly "obsolete." In the *P. subcæcus* indeed they might well-nigh be cited as totally *absent*; for even beneath a high magnifying-power I cannot satisfy myself that I am able to detect for certain even the smallest trace of organs of sight; and indeed the same might be said of the majority of the examples of the *P. minutissimus*. Nevertheless in a *few* of the latter a very diminutive speck, or rounded granuliform tubercle, is decidedly

present to represent the eye, though clearly quite useless for the purposes of vision; and a similar structure is distinguishable (perhaps a *trifle* more evidently) in my unique example of the *P. scrobiculatus*. Under these circumstances I think that it would be rash to speak of the eyes, at all events in the *generic* diagnosis, as positively *absent*; though it is certainly true that, if they can be said to be present, they are so abortive and rudimentary as to come under the exact definition of what is technically termed "obsolete."

90. *Pseudomesoxenus minutissimus*, n. sp.

P. minutissimus, breviter cylindricus, piceus, nitidulus; rostro crasso, triangulari-conico, minutissime parceque punctulato; prothorace magno, ovali, convexo, profunde sed haud dense punctato; elytris profunde striato-punctatis, interstitiis minutissime uniseriatim punctulatis; antennis pedibusque brevibus, ferrugineis. *Subtus* in medio profunde sed parce punctatus.

Long. corp. lin. $\frac{7}{8}$ —1.

Obs.—Oculi interdum subperspicui (tamen ægerrime), sc. minutissimi, punctiformes, valde rudimentarii.

Habitat in editioribus insulæ, *Compositas* arborescentes *Pinosque* destruens. Etiam in ligno antiquo emortuæ putrido longe sub terrâ sito frequenter degit.

Of all the St.-Helena Cossonids which have hitherto been discovered, this is the most minute, and it is an insect which is confined essentially to the higher elevations,—occurring along the whole central ridge, from Diana's Peak and Actæon to Cason's, and thence to High Peak and above West Lodge. It is, however, at Cason's that I met with it more abundantly than elsewhere, where it has attached itself to the Pinasters which have been planted amongst the native cabbage-trees, and where it was met with by Mrs. Wollaston and myself swarming in the interior of the decayed *roots* which extended deep into the soil. It was in company with the *P. subcæcus*, which is also practically blind (the eyes of both species being usually quite untraceable, though in occasional examples *just* to be distinguished as a minute punctiform granule which must be quite useless for the purposes of vision); so that the structure of the two members of the genus may be said to be somewhat in accordance with their *modus vivendi*,—organs of sight being scarcely required for creatures which reside mainly in the interior of rotten wood and very frequently at a considerable depth beneath the ground. Nor-

mally the *P. minutissimus* is dependent, I believe, on the arborescent *Compositæ*, it having been met with abundantly by Mr. P. Whitehead and myself, on the ascent of Actæon, within the damp putrid trunks of dead cabbage-trees; and it was under similar circumstances that I found it at High Peak; but, like so many of the aboriginal Cossonids, it seems able to adapt itself to the firs which have been extensively planted of late years in the less elevated parts of the great central ridge,—in some instances appearing even to desert the cabbage-trees in order to attack the latter.

Apart from its diminutive bulk, the *P. minutissimus* may be recognized by its shortly-cylindric contour, and its oval, considerably developed, convex prothorax, by its thick, conical rostrum, by the sculpture of its upper surface being rather distinct and coarse, by the central portion of its underside being deeply but sparingly punctured, and by its limbs being somewhat abbreviated.

91. *Pseudomesoxenus subcæcus*.

P. angustus, elongate cylindricus, piceus aut rufo-piceus, nitidus; rostro elongate triangulari-conico, minutissime et leviter punctulato; prothorace magno, ovali, sat profunde et dense punctulato; elytris parallelis, parum profunde striato-punctatis, interstitiis minutissime uniseriatim punctulatis; antennis pedibusque ferrugineis. *Subtus* profunde et parum dense punctatus.

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

Pentarthrum subcæcum, *Woll., Ann. Nat. Hist.* iv. 410 (1869).

Pseudomesoxenus subcæcus, *Id., Trans. Ent. Soc. Lond.* 654 (1873).

Pentarthrum subcæcum, *Melliss, St. Hel.* 152 (1875).

Habitat in ligno *Pinorum* emortuo antiquo marcido, in intermediis ac subeditioribus prædominans.

As regards its range, the present *Pseudomesoxenus* does not usually ascend quite so high as the last species,—the lower portions of the central ridge (as, for instance, at Cason's, and immediately above, as well as at, West Lodge) being, so far as I have observed, its upper limits; whilst, below, it descends into strictly intermediate spots, such as Plantation (which possesses an average altitude of about 1800 feet). At Cason's, however, which must be quite 2300 feet above the sea, we obtained it very abundantly, in company with the *P. minutissimus*, within the rotten wood of dead fir trees,—particularly the roots, at some appreciable depth underground; and it was also within the damp but tinder-like masses of old pines that I met

with it (in considerable numbers) at Plantation. But at the edge of the precipice above West Lodge my examples were nearly all obtained from the decayed sticks of the *Aster gummiferus* and the common gorse. I conclude therefore that the insect was attached originally to the native arborescent *Compositæ*; but that, as these have gradually disappeared, it has changed its mode of life and attacked the firs.

The comparatively linear outline of this species, added to its slightly thinner and less abbreviated rostrum, its extremely parallel and more elongated elytra, its rather more shining surface, and its appreciably larger bulk (even though *relatively* more narrowed), will at once distinguish it from the *P. minutissimus*.

92. *Pseudomesoxenus scrobiculatus*, n. sp.

P. præcedenti similis, sed elytris sensim minus parallelis aut paulo magis fusiformibus, subopacis ac multo levius sculpturatis, sc. solum subpunctato-substriatis (punctis striisque fere obsoletis), sed parce transversim subrugatis aut irregulariter et obsolete scrobiculatis; rostro subbreuiore et subcrassiore, oculis quidem discernendis (tamen minutissimis, granuliformibus, valde rudimentariis), antennis paulo brevioribus.

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

Habitat in subeditioribus; exemplar unicum, in ligno arido antiquo *Mellissie begoniæfoliæ*, Hk. f., collegit Dom. P. Whitehead.

The only example of this *Pseudomesoxenus* which I have yet seen has been communicated lately by Mr. P. Whitehead, who found it in the rotten wood of the *Mellissia begoniæfolia* on Rock-Rose Hill. Although nearly allied to the *P. subcæcus*, there can be no question that it represents a species which is in reality quite distinct,—its elytra being not only less decidedly parallel (or a little more fusiform in outline), but likewise *subopaque* and *much* more lightly sculptured (both the punctures and the striæ being well-nigh obsolete); and they are further remarkable for the irregular transverse *scratches*, or obsolete rugæ, with which they are sparingly marked,—a peculiarity of surface which somewhat recalls the otherwise perfectly dissimilar, and hitherto unique, *Microxylobius Westwoodii*. In other respects the *P. scrobiculatus* recedes from the *subcæcus* in having its rostrum relatively a trifle shorter and broader, in its limbs being a little more abbreviated, and (which is important), in the fact of its eyes, although excessively minute, punctiform, and rudimentary, being at any rate *traceable*.

Genus 51. **ISOTORNUS** (nov. gen.).

Corpus elongate subovato-fusiforme, angustulum, supra arcuato-convexum (sc. prothorace elytrisque inter se arctissime applicatis necnon exacte continuis), nitidum, calvum, nigrum, dense sculpturatum; *rostro* brevi, crasso, subtriangulari, *oculis* valde demissis, *scrobe* profundâ, infra oculos subcurvate ductâ; *prothorace* elongato, conico (basi recte truncato), antice vel omnino vel fere integro; *scutello* obsoleto; *elytris* fusiformibus basi recte truncatis; *metasterno* vel breviusculo vel longiusculo; *abdominis* segm^{tis} 1^{mo} et 2^{do} inter se arcte connatis (lineâ vix distinctâ divis), illo paulum longitudinaliter concavo. *Antennæ* mox ante medium (fere in medio) rostri insertæ, breviusculæ; *funiculo* 5-articulato, subcompacto, a basi usque ad apicem gradatim paulo latiore, art^o 1^{mo} obconico, in specie typicâ subelongato et nullo modo incrassato; *capitula* haud abrupto. *Pedes* valde contractiles, *antici* sensim, *intermedii* paulo magis, sed *postici* parum late distantes; *tibiis* ad angulum internum in spinulam (in anticis subrobustam, sed in posterioribus minutissimam) productis; *tarsis* art^o 3^{tio} vel distincte vel indistincte bilobo.

Ab ἴσος, æqualis, et τροπέω, efformo. [Typus: *Isotornus retractilis*.]

It seems scarcely possible to admit the two curious Cossonids for which the present genus is proposed amongst the *Microxylobii* (however dissimilar from each other some of the members of that assemblage may be),—their *arcuated* upper surface (the elongate, conical prothorax being not only very closely applied against the elytra, but likewise, both above and laterally, in the *same continuous curve*), added to their shorter, thicker, and more triangular rostrum, their extremely depressed eyes, their more compact, *gradually*-widened funiculus (the first joint of which is scarcely, if at all, increased in breadth), and their unusually contractile legs, giving them a character which is essentially their own. In outline they are somewhat narrow, elongate, and ovato-fusiform (being a little widened behind the middle of the elytra, and gradually tapering in front); their surface is black, shining, perfectly bald, and very densely sculptured; their scutellum (as in the whole of these genera) is altogether obsolete; and their prothorax is either almost or entirely unconstricted anteriorly.

In one of the species described below, and which I have regarded as the type, the metasternum is rather short, and the third tarsal joint is distinctly, though minutely, bilobed; whilst in the other (the *I. aterrimus*) the metasternum is somewhat elongated, and the feet have their third articulation well-nigh unexpanded and simple.

- § 1. *Metasternum breviusculum*. *Funiculi artus 1^{mus} longiusculus*, nullo modo incrassatus. *Tarsorum artus 3^{tus} evidenter sed minute bilobus*.

93. *Isotornus retractilis*, n. sp.

I. elongate subovato-fusiformis, angustulus, supra arcuato-convexus, nitidus, calvus, niger; rostro brevi, crasso, triangulari, minute et leviter punctulato, oculis valde demissis; prothorace elongato, conico, æquali, antice omnino integro, densissime et profunde punctato; elytris dense et sensim grossius punctatis, punctis in striis longitudinalibus irregularibus obsolete dispositis; antennis pedibusque rufo-piceis. *Subtus* in medio profunde punctatus.

Long. corp. lin. $1\frac{3}{4}$ – $2\frac{1}{3}$.

Habitat in ligno arido antiquo *Commidendri robusti*, DC. (anglice "Gumwood"), in intermediis ad Peak Gut et Thompson's Wood deprehensus.

This most singular Cossonid was detected by Mrs. Wollaston amongst the old gumwoods (*Commidendron robustum*, DC.) in Peak Gut, at an elevation (probably) of about 1600 feet above the sea; and I afterwards met with it abundantly in the same spot (always in the dry and perforated portions of the broken-up wood, within the cavities of which it would lie concealed), and more sparingly at Thompson's Wood. The curious habit which it possesses of retracting its limbs most completely, and applying them against the body, causes the specimens (when shaken out of the hollows) to appear like dead and imperfect ones in which the trunk only remained; and so thoroughly is this the case, that until I had seen one of them produce its legs and absolutely crawl, I could scarcely persuade myself that they were in reality alive.

There can be no fear of confounding this insect with any thing else, except perhaps the following one (the exact distinctions of which will be pointed out shortly),—its elongated ovato-fusiform outline, which is gradually attenuated anteriorly from behind the middle of the elytra (which last are at their base of *exactly* the same breadth as the hinder portion of the prothorax, the two segments being precisely in the same continuous curve), added to its short, triangular rostrum, extremely sunken eyes, and densely sculptured surface, being even of themselves more than sufficient to characterize it. Its metasternum is shorter than in the following species; the basal joint of its funiculus is both longer and slenderer (it being

scarcely, if at all, broader than the succeeding one,—a very unusual structure in the *Cossonidæ*); and the third articulation of its feet is more evidently widened and bilobed.

§ 2. *Metasternum longiusculum*. *Funiculi artus 1^{mus} breviusculus, sequente subcrassior*. *Tarsorum artus 3^{tus} fere simplex* (i. e. *vix latior et vix bilobus*).

94. *Isotornus aterrimus*, n. sp.

I. præcedenti similis, sed subangustior ac paululum magis cylindricus (sc. postice vix minus ampliatus, et antice vix minus regulariter attenuatus); rostro sublongiore et paulo minus triangulari, sensim magis arcuato, nitidiore (sc. nitidissimo), et etiam minutius parciusque punctulato, oculis minoribus et vix omnino demissis; prothorace elytrisque subnitidioribus, necnon rugosius ac subminus dense punctatis, illo antice vix omnino integro (sc. levissime subconstricto).

Long. corp. lin. 2–2 $\frac{1}{4}$.

Habitat in locis parum elevatis; a Dom. P. Whitehead, in ligno *Mellissie begoniæfoliæ*, Hk. f., antiquo juxta Rock-Rose nuper detectus.

The present *Isotornus* is due to the researches of Mr. P. Whitehead, who has lately communicated to me an interesting series of examples which he captured, within the dead wood of the *Mellissia begoniæfolia* (or native "Boxwood"), on Rock-Rose Hill. Although unmistakably congeneric with the preceding one, which at first sight it greatly resembles, it is nevertheless specifically quite distinct,—possessing, as it does, many characters, some of them even structural ones, which combine to remove it entirely from the *I. retracilis*. Thus, not only has it a longer metasternum, an almost simple third tarsal joint, and a less lengthened and less slender basal articulation to its funiculus, but it is also a trifle narrower and more cylindrical in outline (it being rather less widened behind the middle of the elytra, and a little less *regularly* tapering anteriorly), its rostrum is not *quite* so short and triangular, as well as more arcuated, more shining, and still more minutely punctulate, its eyes are smaller though not *quite* so completely sunken or depressed, and its prothorax and elytra (the former of which is obsoletely constricted in front) are both somewhat more shining, as well as more coarsely (and perhaps not quite so closely) sculptured.

Genus 52. **MICROXYLOBIUS.**

Chevrolat, *Trans. Ent. Soc. Lond.* i. 98 (1836).

Corpus plus minus elongato-fusifforme, aut subnitidum calvum, aut subopacum et (saltem in elytris) minutissime subpubescens, plerumque nigrum (rarius picescens, et rarissime obsolete submetallico tinctum); *rostro* plerumque breviusculo (rarius longiusculo, et nunquam elongato), plus minus elongate triangulari (rarius subparallelo), *oculis* plus minus conspicuis (rariss. ægre discernendis), *scrobe* profundâ, infra oculos subcurvate ductâ; *prothorace* subovali, basi truncato (sc. ad latera subæqualiter rotundato), antice vel omnino vel fere integro; *scutello* obsolete; *elytris* plus minus ellipticis basi recte truncatis (rarius subparallelis); *meta-sterno* brevi, et (una cum abdominis segmento 1^{mo}) sæpius longitudinaliter concavo; *abdominis* segm^{tis} 1^{mo} et 2^{do} inter se arcte connatis (lineâ vix distinctâ divis). *Antennæ* ante medium rostri insertæ; *funiculo* 5-articulato. *Pedes* sæpius robusti, *antici* sensim, *intermedii* paulo magis, sed *postici* parum late distantes; *tibiis* ad angulum internum in spinulam minutissimam (rarius subrobustam) productis; *tarsis* art^o 3^{tio} distincte sed minute bilobo.

The genus *Microxylobius*, which includes many species of very different aspect, is perhaps less easy to define rigidly than the other immediately allied groups with which we are here concerned; nevertheless it may be said generally to embrace the smaller St.-Helena Cossonids in which the funiculus is 5-articulate, the metasternum short, the eyes are more or less distinct, and in which the rostrum is never very long or slender, but more or less thick and of an elongated-triangular (sometimes slightly parallel) outline. They are almost invariably black (or nearly so), a metallic tinge (which is so conspicuous in four of the following genera) being quite untraceable except (and very faintly so) in a single species; and although usually quite bald, some of the members are (at any rate on the elytra) very minutely and sparingly pubescent. Their third tarsal joint, although not much widened, is appreciably bilobed; and in two of the exponents (which I have placed at the commencement, and which well-nigh require generic separation) the elytra are aperted towards the apex by a few anomalously large punctures which are arranged (on each elytra) in two deep but abbreviated grooves,—there being, additionally, in one of them (the *M. triturratus*) a lateral sulcus of a similar character (but less coarsely expressed) behind the middle, but anteriorly and posteriorly evanescent. The following tabulation of the species will serve to render the determination of them practically easy:—

A. *Corpus nullo modo metallicum.*a. *plus minus nitidum (omnino aut fere calvum).*β. *oculis minutis, rudimentariis, ægre observandis.*
trituratorus.ββ. *oculis plus minus distinctis.*γ. *rostro utrinque ad apicem oblique subfoveolato-desiliente.*
Whiteheadii.γγ. *rostro simplici.*δ. *oculis valde prominentibus.*
oculatus.δδ. *oculis nunquam valde prominentibus.*ε. *tibiis angulum internum spinulâ valde distinctâ in ♂ armatis.*ζ. *oculis magnis, subsuperioribus.*
lucifugus.ζζ. *oculis minoribus, lateralibus.*
calcaratus.εε. *tibiis ad angulum internum haud conspicue armatis.*
dimidiatus,
bisectus.aa. *plus minus opacum (minutissime, interdum vix perspicue, pubescens).*η. *grosse sculpturatum; rostro postice longitudinaliter inciso.*sculpturatus,
bicaudatus.ηη. *levius (vel dense vel parce) sculpturatum; rostro postice integro.*θ. *rostro ad apicem (inter antennis) minute impresso.*
granulosus.θθ. *rostro omnino integro.*ι. *rostro crasso, elongate triangulari.*
lacertosus.υ. *rostro graciliore.*
opacus,
vestitus.AA. *Corpus obsolete submetallicum.*

Westwoodii.

95. *Microxylobius trituratorus*, n. sp.

M. angustus, elongato-fusiformis, nitidus, calvus, ater; rostro longiusculo, vix elongato-subtriangulari (sc. postice leviter et etiam antice levissime latiore), minutissime punctulato, oculis minutis, rudimentariis, ægre discernendis; prothorace angustulo-ovali, convexo, antice integro, dense et profunde punctato; elytris multo grossius sed parcius punctatis, haud striatis sed punctis sublongitudinaliter (alternatim majoribus ac minoribus) dispositis, — punctis perpaucis pone medium in lineâ sublaterali, necnon aliis versus apicem in sulcis duobus abbreviatis, gradatim majoribus et asperatis, apicem asperatum conjunctim efficientibus, notatis. *Subtus* in medio grossissime et profunde sed parce punctatus.

Long. corp. lin. 2.

Habitat ad promontorium præruptum aridum "the Barn" dictum,

a Dom. P. Whitehead inter arbusculas *Asteris glutinosi*, Roxb. (anglice "Scrubwood"), semel tantum (emortuum) lectus.

The only example of this very distinct *Microxylobius* which I have yet seen was taken by Mr. P. Whitehead on the remote and arid headland, or promontory, in the extreme north-east of the island, known as "the Barn,"—amongst shrubs of the *Aster glutinosus*, Roxb., or "Scrubwood." Unfortunately it was dead and without limbs, so that I have not been able to examine its antennæ and legs; but its other characters are so remarkably well defined that the species which it represents could not by any possibility be confounded with any other which has hitherto been brought to light. In the singular structure at the apex of its elytra to which I have already called attention, as well as in its large size, general aspect, and deep-black hue, it has much in common with the *M. Whiteheadii* (which occurs likewise upon the Barn and in its immediate vicinity, and which is equally attached to the scrubwood); but it nevertheless wants the very curious oblique impression which that species possesses on either side of its rostrum at the tip, and it has also a *sublateral* coarsely-punctured groove (to which I have above alluded) behind the middle of each elytron, in *addition* to the two short and deep ones at the apex. Besides which, the entire outline of the insect is much narrower, its eyes are smaller and extremely rudimentary (the species, in fact, being the only one of the genus in which those organs are somewhat difficult of observation); and its surface (both above and below) is not only more coarsely punctured and more shining, but there is no appearance on the elytra of the obsolete transverse rugæ, or *scratches*, which, although few in number, are nearly always faintly traceable in the *M. Whiteheadii*.

96. *Microxylobius Whiteheadii*, n. sp.

M. elongato-subfusiformis, subnitidus (sæpe in prothorace subopacus), calvus, ater; rostro longiusculo, subparallelo, utrinque ad apicem oblique declivi (quasi late sed oblique foveolato), minute (in ♀ minutissime) punctulato; oculis parvis, subdemissis, sed parum conspicuis; prothorace subovali, antice fere integro, paulo distinctius (tamen leviter) punctulato; elytris confuse, leviter, ac minutissime punctulatis, haud striatis sed obsoletissime parceque transversim subscrobiculato-rugulosis, et ad apicem punctis perpaucis maximis asperatis (in sulcis duobus abbreviatis dispositis), apicem asperulum conjunctim efficientibus, notatis; antennis pedi-

busque crassis, vix picescentioribus; illis ad basin clare piceo-rufis; funiculi articulis ulterioribus valde transversis; tibiis anticis intus versus apicem leviter excavatis; tarsorum art^o 3^{io} distincte bilobo. *Subtus* alutaceus, subopacus, in medio sat grosse sed haud profunde punctatus.

Long. corp. lin. $1\frac{3}{4}$ – $2\frac{1}{2}$.

Habitat lignum emortuum antiquum *Asteris glutinosi*, Roxb. (anglice "Scrubwood"); ad et juxta promontorium præruptum aridum, "the Barn" dictum, a Dom. P. Whitehead captus, cujus in honorem nomen triviale stabilivi.

It is to Mr. P. Whitehead that the discovery of this most interesting *Microxylobius* is due,—he having first obtained it (like the preceding one) on the Barn, and afterwards in the immediate vicinity of that bluff and almost inaccessible headland. In every instance it was attached to the "scrubwood" (*Aster glutinosus*, Roxb.), and it may without doubt therefore be looked upon as a strictly scrubwood species. I am glad to be able to name it after its captor, whose careful observations in so many distant and difficult localities at St. Helena have rendered me the greatest assistance in investigating the Coleopterous fauna of the island.

As already stated, the *M. Whiteheadii* has the same curious arrangement of enormous asperated punctures and abbreviated sulci at the apex of its elytra which exists in the *M. triturator*; nevertheless it entirely wants the *lateral* row which is so conspicuous in that insect. On the average, too, it is larger, broader, and thicker; its entire surface is much more finely sculptured and less shining, its prothorax being often subopaque; and its eyes, although rather small and by no means prominent, are at any rate quite conspicuous,—being both larger and more perfectly developed.

How far the limbs of the *M. Whiteheadii* may agree with those of the *triturator* I have no means of judging, seeing that the unique example of the latter is limbless; but in the former the antennæ and legs are a good deal incrassated, and the funiculus is remarkable for having all the joints except the basal one exceedingly (though gradually more and more) transverse,—the club being, in consequence, not very abrupt.

97. *Microxylobius oculatus*, n. sp.

M. breviter cylindricus, subopacus, calvus, niger; rostro parallelo, dense punctulato, oculis valde prominentibus; prothorace ovali basi truncato, antice leviter constricto, convexo, dense sed vix

grossius punctulato : elytris parallelis, vix punctatis sed levissime substriatis et granulis minutis (saltem antice et versus humeros) parce irroratis; antennis pedibusque brevibus, crassis, piceis, tarsorum art^o 3^{tio} distincte bilobo. *Subtus* in medio dense et profunde punctatus.

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

Habitat in regionibus intermediis, ad Thompson's Wood inter arbores vestustas *Commidendri robusti*, DC. (anglice "Gumwood"), a meipso semel deprehensus.

A single example of this *Microxylobius*, which was captured by myself amongst the old gumwoods at Thompson's Wood, is all that I have hitherto seen; but it is so distinct from every thing else with which we are here concerned that additional material is quite unnecessary in order to complete its diagnosis. As compared with the immediate species with which I have associated it, the *M. oculatus* is small in stature and more parallel in outline (it being shortly-subcylindric); and its rostrum, although tolerably broad, is likewise more straight and linear; its limbs are abbreviated and thickened, its entire surface (which is black and bald) is somewhat opaque, and (which is one of its most salient features) its eyes are exceedingly prominent. Its rostrum and prothorax are finely and lightly punctulated; but the punctures of its elytra (which are very indistinctly striate) are obsolete,—being replaced, at any rate towards the base and shoulders, by diminutive granules.

98. *Microxylobius lucifugus*. (Fig. 2.)

M. magnus, crassus, elliptico-fusiformis (in medio latiusculus), subnitidus, calvus, ater; rostro crassiusculo, elongate triangulari, densissime et rugose punctato, ad apicem canaliculato et impresso, oculis sat magnis sed demissis et subsuperioribus; prothorace ovali basi truncato, antice integro, densissime et vix minus grosse punctato; elytris ellipticis basi truncatis, densissime rugoseque punctatis et plus minus obsolete substriatis, necnon (præsertim postice et versus humeros) granulato-asperatis; antennis pedibusque elongatis, crassis, illis tarsisque piceo-ferrugineis, femoribus tibiisque nigro-piceis; tibiis ad angulum internum robuste calcaratis; tarsorum art^o 3^{tio} latiusculo et conspicue bilobo. *Subtus* in medio dense et sat profunde punctatus.

Long. corp. lin. 2–vix 3.

Microxylobius lucifugus, Woll., *Trans. Ent. Soc. Lond.* v. 382, pl. 18. f. 6 (1861).

— —, *Id.*, *Ann. Nat. Hist.* iv. 405 (1869).

— —, *Melliss, St. Hel.* 151 (1875).

Habitat editiores insulæ, inter *Compositas* arborescentes proprie degens. Sed quoque in regiones intermedias descendit,—ad Plantation, Oakbank, et cæt., etiam *Quercus*, *Acacias*, *Pinos*, *Erythrinam caffram*, Thunb., et *Psoraleam pinnatam*, Linn., destruens.

This is the largest of the true *Microxylobii* which have yet been detected; and it is also thick and mesially-widened in outline, of a deep-black, densely punctured, and totally bald but not very shining surface, and with its limbs a good deal lengthened and incrassate. Its rostrum is elongate-triangular, with the extreme apex channelled and impressed; and the eyes are rather large, but sunken and a little more *superior* in position than is the case in the other members of the group; its prothorax is unconstricted in front; its elytra (which are well-nigh unstriate, or very obsoletely so) have a certain amount of asperated granules, particularly towards the shoulders and apex, mixed up with their closely-set punctures; its tibiæ are produced into a slightly more robust spinule than is usual at their apical angle; and the third joint of its feet is comparatively widened and conspicuously bilobed.

The *M. lucifugus* (which was first met with by the late Mr. Bewicke, during a day's collecting at St. Helena, in 1860) is one of the most general and widely-spread of all the *Microxylobii*, and one which seems (although without doubt attached originally to the various arborescent *Compositæ*) to have been able to adapt its mode of life to the altered conditions of the island,—occurring often beneath the loosened bark of oaks, acacias, pines, and the Cape coral-tree (*Erythrina caffra*, Thunb.), and descending into strictly the intermediate districts, such as Plantation, Oakbank, and below the ridge towards Sandy Bay (where it was found in the decayed trunk of an old *Erythrina* by the Rev. H. Whitehead). It is, however, far more at home in the higher regions, where it abounds beneath the loose outer fibre of the *Compositæ* along the whole length of the great central ridge,—from Diana's Peak and Actæon to Cason's, High Peak, and West Lodge; and I have also obtained it amongst the gumwoods in Thompson's Wood. In one of the few spots which are at all accessible on the precipitous slopes behind High Peak I met with it in countless numbers,—under the dead and loosely-hanging bark of a *Petrobium arboreum*, R. Br., or "White-wood Cabbage-tree."

The *M. lucifugus* was captured likewise by Mr. Gray.

99. *Microxylobius calcaratus*, n. sp.

M. elliptico-fusiformis, nitidus, fere calvus (oculo fortissime armato in elytris minutissime et parcissime pubescens), ater; rostro sublineari (vix elongate subtriangulari), minute et leviter punctulato, in medio subconvexo, oculis parvis sed distinctis (vix prominulis); prothorace magno, convexo, subovato, antice leviter constricto, paulo distinctius (tamen leviter) punctato; elytris breviusculis, convexis, ellipticis basi truncatis, confuse substriato-punctatis, interstitiis sub-uniseriatim punctulatis, leviter transversim rugulosis, necnon ad humeros incrassate marginato-porrectis; antennis clare piceo-ferrugineis; pedibus nigro-piceis, tarsis dilutioribus; tibiis subcurvatis, ad angulum internum in ♂ valde robuste calcaratis; tarsorum art^o 3^{to} distincte sed minute bilobo. *Subtus* in metasterno valde profunde et grosse sed vix dense punctatus.

Long. corp. lin. $1\frac{1}{2}$ –2.

Habitat in locis elevatis, *Compositas* arborescentes et interdum etiam *Pinos* erodens.

This is rather a small, but deep-black and shining little species, in which the prothorax is very convex and largely developed (in proportion to the size of the insect), and in which the elytra appear consequently to be rather more abbreviated and elliptical than usual, and one in which the male tibiæ (which are slightly curved) are produced at their inner angle into a proportionally more robust spinule than in the other members of the genus. Its rostrum is moderately long and thick, but hardly at all triangular—it being well-nigh linear or parallel; its elytra are convex, with the margin at the shoulders thickened and porrected; and the surface of the latter, although practically bald, will be seen, when viewed beneath a high magnifying-power, to be very sparingly studded with a few exceedingly short and diminutive hairs,—which, however, are often barely traceable.

The *M. calcaratus* is essentially a cabbage-tree species, and one of a high elevation; nevertheless it has attached itself also to the pines, when planted (as at Cason's) amongst the native arborescent *Compositæ*. Indeed at Cason's we met with it in profusion, in company with the *M. bisectus*, *granulosus*, and *lacertosus*, and the *Pseudomesoxeni*, beneath the loosened bark of dead pines which lay rotting on the ground. It was likewise, however, as on the loftier parts of the great central ridge (in the vicinity of Diana's Peak), within the old wood of the decayed cabbage-trees.

100. *Microxylobius dimidiatus*.

M. præcedenti similis, sed paululum minor, et subminus nitidus (etiam obsoletissime, vix perspicue, subæneo-tinctus); rostro sensim crassiore, convexiore, et magis triangulari, paulo profundius punctato, oculis sensim minoribus (tamen subprominulis); prothorace paulo angustius ovali (sc. ad latera minus ampliate rotundato), antice submagis constricto; elytris paulo magis rugulosis, et vix magis perspicue (tamen minutissime) pubescentibus; funiculo brevior, crassior; tibiis posterioribus nec in ♂ robuste calcaratis; metasternoque paulo minus grosse punctato.

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

Microxylobius dimidiatus, Woll., *Ann. Nat. Hist.* viii. 402 (1871).

— —, Melliss, *St. Hel.* 150 (1875).

Habitat in editioribus, lignum antiquum marcidum *Compositarum* arborescentium parce destruens.

Judging from the few examples (ten in number) which are now before me, the present *Microxylobius* approaches so closely to the *M. calcaratus* that until the two species have been accurately compared they might well be confounded with each other; and yet I feel quite satisfied that they are truly distinct. Thus, not only is the *M. dimidiatus* a little smaller (on the average) than the *calcaratus*, and not quite so shining or of so intense a black (there being generally very obscure traces of a just appreciable subænescent tinge), but its rostrum is relatively broader, thicker, convexer, and more triangular, as well as a trifle more coarsely punctured; its eyes, although somewhat prominent, are a little smaller; its prothorax is perceptibly narrower or less rounded-outwards at the sides (being, in fact, oval, rather than ovate), and more constricted in front; its elytra are more rugulose, and with their very diminutive and remote pubescence a trifle more traceable; its metasternum is not quite so coarsely punctured; its funiculus is proportionally somewhat shorter and thicker; and the inner angle of its male tibiæ (at any rate the four posterior ones) are not more powerfully spurred than is the case in the ordinary species.

So far as I have observed, the *M. dimidiatus* is found only on the higher parts of the great central ridge, about Diana's Peak and Actæon,—where I met with it beneath damp rotting pieces of the wood of the old cabbage-trees; whereas the *M. calcaratus* (although occurring sparingly in the same locality) was more particularly abundant at Cason's, which is appreciably lower in elevation,—where

it seemed to have attached itself quite as much to the pines as to the native arborescent *Compositæ*.

101. *Microxylobius bisectus*, n. sp.

M. minutus, breviter subovato-fusiformis, nitidus, fere calvus (oculo fortissime armato in elytris minutissime et parcissime pubescens), niger; rostro breviter sublineari (postice atque etiam antice paululum latiore), minus convexo, minutissime et levissime punctulato, oculis minutis sed prominulis; prothorace magno, subovato, antice fere integro, argute punctulato; elytris breviusculis, rugulosis, profunde punctato-striatis, interstitiis subconvexis ac minutissime uniseriatim punctulatis; antennis pedibusque (brevibus) piceo-ferrugineis; tarsis brevissimis, art^o 3^{tho} fere simplici (sc. vix latiore et vix etiam minutissime subbilobo). *Subtus* in metasterno parcissime sed rugose punctatus.

Long. corp. lin. $\frac{7}{8}$ —1.

Habitat lignum emortuum antiquum in editioribus insulæ, inter *Compositas* arborescentes et *Pinos*.

This is the most minute of the true *Microxylobii* which have hitherto been detected, and one which is confined to the high central ridge,—where I have taken it both in the vicinity of Diana's Peak and at Cason's. Indeed at the latter it was extremely abundant; and, like so many of the species in that somewhat less-elevated region, it occurred quite as much beneath the old pines which were lying dead upon the ground as in the rotten wood of the cabbage-trees; nevertheless there can, of course, be no question that it is the latter to which it was originally attached. It has also been met with by Mr. P. Whitehead in decayed firs at Rock Cottage, on the eastern side of the ridge.

In proportion to its size the *M. bisectus* (which is short and rather broad in outline) has its prothorax (which, like that of the *calcaratus*, is rather more *ovate* than oval) quite as largely developed as in the last two species—indeed so much so as to cause the two anterior segments of its body to appear (conjointly) almost *larger*, if any thing, than its elytra; at all events it may be said to be about equally *bisected* by the central line of division. Its colour is black (or occasionally sub-picescent); and, beneath a high magnifying-power, there are indications on the elytra of a few extremely diminutive and very abbreviated scattered cinereous hairs (often barely traceable). Its rostrum (which is not very convex, and most minutely and indistinctly punctulated) is rather more linear than triangular (being, however,

a *trifle* widened both before and behind); its eyes are small but slightly prominent; its elytra are more deeply striated than is the case in most of these immediately-allied forms; and its feet, which are very short, have their third joint scarcely at all expanded or bilobed.

102. *Microxylobius sculpturatus*, n. sp.

M. angustulus, subcylindricus, subopacus, oculo fortissime armato in elytris minutissime et parce cinereo-pubescent, niger aut piceo-niger sed plus minus fusco-lutosus; rostro sublineari (aut in ♂ anguste elongato-subtriangulari), nitido, minutissime punctulato, postice profunde arguteque longitudinaliter excavato-inciso; capite profundius dense punctato, oculis prominulis; prothorace subovali, dense et grosse punctato; elytris profunde punctato-striatis (punctis maximis), interstitiis subcostato- (2^{do} a suturâ postice paulo magis) elevatis; antennis pedibusque piceo-ferrugineis; tarsis brevibus, art^o 3^{tio} minutissime subbilobo. *Subtus* in medio dense et grosse punctatus.

Long. corp. lin. 1-1½.

Habitat in ligno antiquo *Compositarum* arborescentium, in locis insulæ valde elevatis.

The present species and the following one (which may *possibly* be extreme modifications of a single type) are both of them found on the high central ridge (the latter occurring also a little below it); and they are both remarkable for their rather narrow and subcylindrical outline, and for their nearly opaque and extremely coarsely sculptured surface,—the punctures of the prothorax being large and closely packed, and those of the elytral striæ enormous; and (although black, or piceous-black, in hue) they are usually more or less coated with a pale brownish mud-like deposit, which is apt to fill up the inequalities and is not always easy to remove. Their rostrum, which is brighter than the rest of the body (particularly in the female sex), is longitudinally cut into, or gashed, *behind*, the excavation being deep and sharply expressed; and their interstices are more or less elevated, or costate. In the *M. sculpturatus* the latter are not very much, and about *evenly* raised,—the second one only from the suture being a trifle more conspicuous than the rest, particularly towards the apex.

The *M. sculpturatus* occurs along the whole central ridge, from Diana's Peak and Actæon to High Peak, and thence to West Lodge. It is attached to the rotten wood of the various arborescent *Compo-*

sitæ; and I have usually found it rare, except on one occasion on the almost inaccessible slope behind High Peak,—where I met with it in the utmost profusion beneath the bark, and in the decayed branches, of a *Petrobium arboreum*, R. Br., or “Whitewood Cabbage-Tree.”

103. *Microxylobius bicaudatus*, n. sp.

M. præcedenti similis, sed vix (nisi fallor) ejus varietas. Differt elytrorum interstitiis alternis magis elevatis, interstitio 2^{do} postice gradatim valde elevato (coleopteris sc. quasi exstanter bicaudatis). Long. corp. lin. 1–1½.

Habitat in locis similibus ac præcedens; tamen fere in intermediis descendit.

As already mentioned, this *Microxylobius* may possibly be an extreme modification of the preceding one, though I have not been able to obtain connecting links between the two. It seems to differ from it merely, so far at least as I can detect, in the *alternate* interstices of its elytra being more elevated than the rest, and (more particularly) in the second one from the suture being gradually raised behind in a most extraordinary manner,—so as to shape out two prominent *tail*-like appendages, or costiform prominences, towards the apex.

Like the *M. sculpturatus*, the present *Microxylobius* is attached normally to the rotten wood of the old cabbage-trees, and (as in the neighbourhood of Actæon and Diana's Peak) in the highest elevations; but it has adapted itself also to the pines, and descends occasionally rather below the great central ridge,—under which circumstances I have met with it abundantly at Rock Rose; and it was likewise captured amongst the firs, by Mr. P. Whitehead, at Rock Cottage.

104. *Microxylobius granulosus*, n. sp.

M. parvus, elongato-ovatus, opacus, oculo fortissime armato in elytris minutissime et parce cinereo-pubescens, niger aut piceo-niger, ubique minutissime granulosus (vix punctulatus); rostro sublineari (sed postice atque etiam antice paululum latiore), depresso, ad apicem ipsissimum (inter antennis) leviter subrotundate impresso, oculis subprominentibus; prothorace ovali; elytris (vix subpunctato-) striatis, ad humeros marginato-porrectis, interstitiis subcostato- (2^{do} a suturâ sæpius paululum magis) elevatis; antennis (paulo magis versus apicem rostri insertis) longiusculis, crassiusculis, pallide ferrugineis; pedibus piceo-ferrugineis, tarsorum art^o 3^{tio}

evidenter sed minute bilobo. *Subtus* in medio confuse subpunctato-rugosus.

Long. corp. lin. $\frac{7}{8}$ – $1\frac{1}{4}$.

Habitat in insulæ editioribus, inter *Compositas* arborescentes et (præcipue quidem) *Pinos*. Ad Cason's sub truncis *Pinorum* prolapsis emortuis copiosissime collegi.

This is one of the smallest of the *Microxylobii*; and it is a species which has attached itself to the pines more than most of the others, though it occurs normally (as on the higher parts, towards Diana's Peak, of the great central ridge) within the rotten wood of the old cabbage-trees. However, at Cason's we met with it in the utmost profusion beneath the dead trunks of the firs which were lying scattered on the ground,—in company with the *M. bisectus*, *calcaratus*, and *lacertosus*; but I did not observe it anywhere at a lower elevation.

There can be no fear of confounding the present diminutive *Microxylobius* with any thing else with which we are here concerned,—its subovate outline and opaque densely-granulated surface, added to its slightly flattened rostrum (the extreme apex of which is minutely foveolated, or impressed, between the antennæ), its somewhat prominent eyes, porrected shoulders, and the rather distinctly-raised interstices of its elytra, giving it a character which it is impossible to mistake. Its antennæ, which are rather long and thick (in proportion to the size of the insect), are implanted a trifle nearer to the apex of the rostrum than is the case in the other members of the genus.

105. *Microxylobius lacertosus*. (Fig. 3.)

M. elongate ovato-cylindricus, opacus, in elytris minute sed distincte cinereo-pubescent, niger (interdum subpicescens); rostro crasso, elongate triangulari, convexo, dense punctulato, oculis prominentibus; prothorace ovali, antice paululum constricto, densissime ruguloso-punctulato; elytris vix punctatis sed obsolete striatis granulisque minutis parce irroratis, interstitiis paululum convexis; antennis ferrugineis; pedibus piceis, tarsorum art^o 3^{tio} distincte bilobo. *Subtus* in metasterno dense sed confuse subpunctato-asperatus.

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

Microxylobius lacertosus, Woll., *Trans. Ent. Soc. Lond.* v. 381, pl. 18. f. 5 (1861).

— —, *Id.*, *Ann. Nat. Hist.* iv. 405 (1869).

— —, *Melliss, St. Hel.* 150 (1875).

Habitat in editioribus atque etiam intermediis insulæ, *Compositas* *Pinosque* præsertim destruens.

According to my experience, this is the most common and general of the *Microxylobii*; for although the *M. vestitus* exists still more abundantly in the places where it occurs, that species does not descend normally into districts so strictly "intermediate" as the present one. Moreover the *M. lacertosus* has attached itself to the pines almost as much as it ever could have done to the native arborescent *Compositæ*; whereas the *M. vestitus* is scarcely ever found except amongst the cabbage-trees. Although it is on the central ridge that the *M. lacertosus* principally swarms (it being universal about Diana's Peak and Actæon, as well as at Cason's, High Peak, and above West Lodge), I have nevertheless taken it in almost equal profusion in spots of an appreciably lower altitude—such as Rock Rose, Plantation, Oakbank, Vine-Tree Gut, &c.,—it being often found about old palings and gates (particularly when made of rough pine), as well as under the bark of various naturalized trees.

There is no species more distinct, or more readily determinable, than the present one,—its ovato-cylindric outline and thick, convex, subtriangular rostrum, in conjunction with its rather prominent eyes, and its opaque and densely (though somewhat minutely) sculptured surface (the elytra, on which the short cinereous pubescence is comparatively easy to be traced, being free from punctures, but sparingly studded with very diminutive granules), being more than sufficient to characterize it.

106. *Microxylobius opacus*, n. sp.

M. elongato-subovatus, *opacus*, fere calvus (oculo fortissime armato in elytris minutissime et parcissime cinereo-pubescent), vel piceus vel nigro-piceus; rostro longiusculo, subgracili (tamen graciliter elongato-subtriangulari), tereti, minute punctulato, antice (præsertim in ♀) nitido, oculis parvis, subdemissis; prothorace magno, convexo, ovali, antice atque etiam postice obsolete constricto, basi evidentius marginato, leviter et haud densissime punctulato; elytris ellipticis basi (submarginatis) truncatis, obsolete substriato-subpunctatis (striis punctisque indistinctis, et postice omnino evanescentibus), interstitiis latis depressis et obsolete vix sub-uniseriatim parce punctulatis, suturâ antice canaliculato-impressâ; antennis pedibusque crassis, illis clare piceo-ferrugineis, his piceis; tibiis in ♂ ad angulum internum robuste calcaratis;

tarsorum art^o 3^{uo} latiusculo et distincte bilobo. *Subtus* in medio leviter et parce punctatus.

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

Habitat intra truncos *Dicksoniæ arborescentis* antiquos emortuos marcidos; in editioribus juxta Diana's Peak lectus.

It is exclusively within the damp and rotting stems of the old tree ferns that the present *Microxylobius* has been taken; and it was only on the highest portions of the great central ridge that we met with it, and even there but sparingly,—about two dozen examples being all that I could secure during our constant researches amongst the *Dicksonias*. Still, of all the *Cossonids* attached to those plants, it certainly ranks next to the *Pentarthrodes dicksoniæ* as regards abundance. It was chiefly on the ascent, and at the summit, of Actæon that we observed the *M. opacus*; and it has been found also by Mr. P. Whitehead in the same locality.

The opaque but very *lightly* sculptured and nearly bald surface of this species, added to its piceous or piceous-black hue, its rather long and slender rostrum, small eyes, posteriorly-margined prothorax, and its *somewhat* anteriorly-margined elytra (the suture of which is grooved in front, whilst the punctures and striæ are almost obsolete and quite untraceable behind), will at once separate it from the other species with which it is associated. As in the case of the *M. calcaratus* and *vestitus*, the inner apical angle of its male tibiæ is rather powerfully spurred.

107. *Microxylobius vestitus*.

M. elongato-fusiformis, subopacus, parce sed parum grosse fulvo-cinereo-sericatus, piceo-ferrugineus sed in rostro et prothorace sæpius clarius; rostro prothoraceque minute, leviter, et parce punctulatis, illo sublineari, antice (præsertim in ♀) nitido, oculis sat magnis, prominulis, et subsuperioribus, hinc (præcipue in ♂) magno, subovali, antice conspicue constricto; elytris ovali-cylindricis, dense transversim subasperato-rugulosis sed solum obsolete substriatis; antennis pedibusque (præsertim in ♂) longiusculis, crassis, rufo-testaceis; tibiis in ♂ ad angulum internum robuste calcaratis; tarsorum art^o 3^{uo} latiusculo et distincte bilobo. *Subtus* in medio leviter et parce (sed parum grosse) punctatus.

Long. corp. lin. 1—vix 2.

Microxylobius vestitus, Woll., *Ann. Nat. Hist.* iv. 404 (1869).

—, Melliss, *St. Hel.* 150 (1875).

Habitat inter *Compositas* arborescentes, in editioribus insulæ, vulgarissimus.

Although perhaps not quite so widely spread over the island as the *M. lacertosus* (for it scarcely descends into the *strictly* "intermediate" districts), the present species is immeasurably the most abundant of all the *Microxylobii* in the places where it is found,—swarming under the loose outer fibre of the cabbage-trees almost everywhere throughout the higher altitudes. About Actæon and Diana's Peak, as well as at Cason's, I have frequently seen many hundred examples on a single dead trunk; but it is not quite so common as we approach the south-western portion of the ridge, towards High Peak and West Lodge. On one occasion only have I taken a specimen so low down as Plantation (1800 feet above the sea); and that in all probability was an accidental one which had been brought from the mountains along with fuel. It is one of the Cossonids which was met with also by Mr. Gray, during the month that he remained with us in the island.

The unique individual, taken by Melliss, from which I enunciated this species in 1869, afforded me no opportunity of perceiving the great variability of the latter as regards stature,—larger examples often doubling the smaller ones in bulk. But, apart from this fact, and the comparatively coarse fulvo-cinereous pubescence with which it is clothed or sericated, the *M. vestitus* may be known by its opaque surface and its piceo-ferruginous colour (the rostrum and prothorax, which are most minutely and not very densely punctulated, being of a clearer tint than the rest of the body), by its elytra being confusedly and somewhat roughly transversely-rugulose (but scarcely punctured, and scarcely striate), and by its limbs (particularly in the male sex) being rather long and thick, and of a pale reddish-testaceous hue. The tibiæ, also, in the males are (as is observable in the preceding species, as well as in the *M. calcaratus*) a little more powerfully spurred than is usual at their inner apical angle; and the prothorax, which is a good deal constricted anteriorly, is appreciably more rounded and enlarged in that sex than it is in the females. Its rostrum is nearly linear; its eyes are rather large and prominent, as well as a trifle more *superior* in position than is the case in the generality of the other members of the group; and the third joint of its feet is *comparatively* wide and bilobed.

108. *Microxylobius Westwoodii*.

M. angusto-elongatus, ovato-cylindricus, obscure subnigro-æneus (atque etiam obsoletissime subvirescens), alutaceus, subopacus,

calvus; capite rostroque minute et leviter sed argute punctulatis, hâc breviusculo sed lineari et supra subgibboso; prothorace angusto, cylindrico-subovato, punctulis minutissimis parce et leviter irrorato; elytris subcylindricis sed pone medium paulo latioribus, confuse transversim rugatis (fere quasi subrimosis) sed haud sculpturatis (*i. e.* vix striatis et vix punctatis), suturâ antice subcarinatâ; antennis pedibusque piceo-nigris, illis basi rufo-ferrugineis.

Long. corp. lin. $1\frac{1}{4}$.

Microxylobius Westwoodii, *Chevr., Trans. Ent. Soc. Lond.* i. 98, pl. 10. f. 6 (1836).

— — —, *Woll., ibid.* v. (n. s.) 381 (1861).

— — —, *Id., Ann. Nat. Hist.* iv. 403 (1869).

— — —, *Id., ibid.* viii. 412 (1871).

— — —, *Melliss, St. Hel.* 149 (1875).

Habitat "ins. St. Helena" [sec. Chevrolat]; mihi non obvi-
us.

Obs.—Species inter reliquas distinctissima; differt corpore angustiore et multo magis cylindrico, ubique alutaceo, subopaco, calvo, prothorace minutissime tantum parceque punctulato, elytris transversim substriguloso-rugatis sed longitudinaliter vix sculpturatis, suturâ antice acutiusculâ subcariniformi.

Not possessing, for re-comparison, the type of this obscure little *Microxylobius*, which was lent to me by Mr. Saunders in 1872, I have simply transcribed the diagnosis which I then drew out with considerable care,—believing that even a fresh examination of it would not enable me to add to the characters any thing of sufficient importance to throw new light upon its affinities. Although we unfortunately failed in securing examples of the species which it represents, and which is still vouched for (after an interval of nearly fifty years) by a unique specimen in a London cabinet, I have already expressed my suspicion that it is not to the cabbage-trees, nor yet to the tree ferns, that we must look for the reintroduction into the fauna of the *Microxylobius* type, but (as I cannot but think is more probable) to the "scrubwood" (*Aster glutinosus*, Roxb.),—one of the aboriginal arborescent *Compositæ* which we had no opportunity of investigating, and which (although once so abundant that large tracts of a comparatively low altitude towards the coast were literally covered with it) is becoming, year by year, more rare. Still I only offer this as a conjecture, for it may possibly be to the *Mellissia begoniæfolia*, Hk. f., or to some other native shrub now nearly extinct, that the *M. Westwoodii* is (or, rather, was) attached; though the no distant relationship which it possesses with the

M. Whiteheadii (and to a certain extent, also, even with the *Pseudomesoxenus scrobiculatus*) inclines me to think that it more probably belongs to the fauna, now rapidly disappearing, of the scrubwood.

Before I had inspected the actual type of the *M. Westwoodii*, Chevrolat's original diagnosis (which contains scarcely a reference to any character which is really distinctive) led me to believe that it might perhaps prove to be conspecific with the common *M. vestitus*; but a single glance at the example itself was sufficient to dispel any such idea. Nevertheless, when contrasting it with that insect (which is well selected, from its extreme abundance, as a basis for comparison), I mentioned, in 1872, that it "is as small as even the *vestitus*, being only a line and a quarter in length. It is, however, relatively narrower and much more cylindrical (indeed more so than any of the *Microxylobii* which have hitherto been detected); and it is likewise darker in hue and perfectly free from even a trace of pubescence. Its rostrum is a little wider than in that species, and its tibiæ are rather more curved, and the punctation of its head and prothorax (the latter of which is comparatively unexpanded behind the middle) is even more delicate still; and it is further remarkable for its elytra (which have their suture slightly raised, or somewhat keel-shaped in front) being transversely marked with remote, obscure scratches, or irregular strigæ, but almost devoid of longitudinal sculpture; whilst its entire surface is coarsely alutaceous, and therefore but very faintly shining."

Genus 53. ACANTHOMERUS.

Boheman, *Res. Eugen.* 141 (1858).

Corpus vel fusiforme vel ovatum, calvum, nitidissimum, æneum; *rostro* mediocri, vel graciliter elongato-triangulari vel (sæpius) parallelo, *oculis* distinctis, *scrobe* infra oculos subcurvate ductâ; *prothorace* vel ovato vel (rarius) conico, antice integro; *scutello* obsoleto; *elytris* plus minus obovatis basi truncatis; *metasterno* brevissimo, et sæpius (una cum abdominis segm^{tis} 1^{mo} et 2^{do}) longitudinaliter concavo; *abdominis* segm^{tis} 1^{mo} et 2^{do} inter se arcte connatis (lineâ tamen parum distinctâ divisis). *Antennæ* ante medium rostri insertæ; *funiculo* 5-articulato, art^o 2^{do} vel elongato vel sequentibus vix longiore. *Pedes* robusti, *antici* fere contigui, *intermedii* paulo magis distantes, *postici* haud valde distantes; *femoribus posticis* in speciebus typicis supra ad basin (in utroque sexu) spinâ magnâ acutâ armatis, sed in speciebus aberrantibus muticis; *tarsis* art^o 3^{to} latiusculo et profunde bilobo.

As distinguished from the *Microxylobii*, the *Acanthomeri* may be said to be (on the *average*) rather larger in bulk, of a brilliant æneous tinge (instead of being black, or piceous, and unmetallic), perfectly free (in at all events the majority of the species) from pubescence, with their rostra usually a trifle longer and more parallel (being seldom, even obsoletely, subtriangular), and with the third joint of their feet more appreciably widened and bilobed; and in the typical members of the group the femora are armed at their base, on the *upper* or anterior edge, with an acute and powerful spine. This last character is, as I need scarcely add, extremely anomalous; and it is one which does not appear to be in any degree sexual. The metasternum in *Acanthomerus* (the *A. cylindricus* alone excepted) is remarkably short; and the antennæ are generally implanted a *little* nearer to the apex of the rostrum than is the case in the true *Microxylobii*.

As a slight aid to the practical determination of the 11 species which compose the present assemblage, I subjoin the following analytical table:—

- A. *Femora postica supra, ad basin, spinâ armata* [ACANTHOMERI
typici.]
- a. *corpus magnum; funiculi art^o 2^{do} elongato.*
armatus.
- aa. *corpus breviter convexum; funiculi art^{is} 1^{mo} et 2^{do} longiusculis, sub-*
æqualibus. conicollis.
- aaa. *funiculi art^{is} 2^{do}, 3^{tio}, 4^{to}, et 5^{to} brevibus, subæqualibus, monili-*
formibus. ellipticus,
moniliformis.
- AA. *Femora mutica*..... [ACANTHOMERI aberrantes.]
- β. *funiculi art^{is} 2^{do}, 3^{tio}, 4^{to}, et 5^{to} brevibus, subæqualibus, monili-*
formibus. similis.
- ββ. *funiculi art^{is} 1^{mo} et 2^{do} plus minus elongatis.*
- γ. *corpus elongate fusiformi-ovatum.*
debilis.
- γγ. *corpus angustissimum, cylindricum (metasterno longiore).*
cylindricus.
- γγγ. *corpus plus minus fusiforme, vel elliptico-fusiforme.*
- δ. *tibiis evidenter curvatis.*
- ε. *funiculi art^o 2^{do} vix longiore quam primo.*
angustus.
- εε. *funiculi art^o 2^{do} multo longiore quam primo.*
asperatus.
- δδ. *tibiis subrectis.*
terebrans,
obliteratus.

A. *Femora postica supra ad basin (in utroque sexu) spinâ armata.*
[ACANTHOMERI typici.]

109. *Acanthomerus armatus.* (Fig. 5.)

A. magnus, elongato-fusiformis, æneus, nitidissimus, calvus; rostro sublineari, crassiusculo, convexo, dense et rugose punctato, oculis magnis sed haud valde prominentibus; prothorace subovali, minutius leviusque punctulato, per basin ipsissimam opaculo et minute subgranulato; elytris obsolete et remote substriato-punctatis, interstitiis latis et parum grosse denseque punctatis; antennis pedibusque elongatis, illis tarsisque rufo-ferrugineis; funiculi art^o 2^{do} elongato; tarsis elongatis, art^o 3^{tio} latiusculo et valde distincte bilobo. *Subtus* in medio remote et leviter subgranulatus, aut asperato-punctatus.

Variat (rarius) colore nigro, haud metallico.

Long. corp. lin. $2\frac{1}{2}$ –3.

Acanthomerus armatus, *Bohem., Res. Eugen.* 141 (1859).

Microxylobius Chevrolatii, *Woll., Trans. Ent. Soc. Lond.* v. 388, pl. 18. f. 8 (1861).

— —, *Id., Ann. Nat. Hist.* iv. 408 (1869).

Acanthomerus armatus, *Id., Trans. Ent. Soc. Lond.* 653 (1873).

Microxylobius Chevrolatii, *Melliss, St. Hel.* 152 (1875).

Habitat sub cortice *Compositarum* arborescentium laxo emortuo; in editoribus vulgaris.

The present *Acanthomerus* is essentially a cabbage-tree species, and one which occurs abundantly towards the central ridge of the island,—often clustering under the loose fibrous bark of the old dead trunks in considerable numbers. I have met with it more particularly below Diana's Peak and Actæon (along what is called the "Cabbage-Tree Road"), as well as on Stitch's Ridge and at Cason's; but it does not seem quite so common as we approach High Peak and West Lodge. It was obtained likewise by Mr. Gray, during his month's sojourn at St. Helena, as well as by the late Mr. Bewicke in July of 1861.

Apart from its large size, elongate-fusiform outline, and the powerful spine with which it is furnished on the upper edge of the extreme base of its two hinder femora, the *A. armatus* (which, like the other members of the present genus, is brightly polished, bald, and brassy) may be known by its very lightly and minutely punctulated prothorax, and more coarsely punctured rostrum and elytra, as well as by its elongate limbs (the feet and the second funiculus-joint being conspicuously lengthened), and by the comparatively wide

and deeply-bilobed third articulation of its tarsi. Like most of the æneous species, it has an occasional dark or blackish state.

110. *Acanthomerus conicollis*. (Fig. 4.)

A. breviter ovato-ellipticus, valde convexus, supra arcuatus, nigro-æneus, nitidissimus, calvus; rostro graciliter subtriangulâri, minute parceque punctulato, oculis subdemissis; prothorace conico (postice elytrorum latitudine), fere esculpturato (obsoletissime solum levissimeque punctato); elytris obsolete et remote subpunctato-substriatis, interstitiis latis et punctis magnis sed obsoletissimis notatis (punctis striisque plus minus evanescentibus); antennis tarsisque rufo-ferrugineis, femoribus tibiisque piceis; spinâ femorum posticorum maximâ; funiculi art^{is} 1^{mo} et 2^{do} longiusculis, subæqualibus; capitulo oblongo, minus abrupto; tarsorum art^o 3^{tio} distincte bilobo. *Subtus* in medio punctis perpaucis obscuris levibus irroratus.

Variat (rarius) colore nigro, vix submetallico.

Long. corp. lin. $1\frac{1}{4}$ – $1\frac{2}{3}$.

Microxylobius conicollis, Woll., *Trans. Ent. Soc. Lond.* v. 384, pl. 18. f. 9 (1861).

— —, *Id.*, *Ann. Nat. Hist.* iv. 409 (1869).

Acanthomerus conicollis, *Id.*, *Trans. Ent. Soc. Lond.* 653 (1873).

Microxylobius conicollis, Melliss, *St. Hel.* 152 (1875).

Habitat in intermediis editioribusque insulæ, arbores varias colens.

In ligno antiquo emortuo *Commidendri robusti*, D.C., *Asterisque gummiferi*, Hk. f., præcipue abundat.

Of all the St.-Helena Cossonids which are unmistakably aboriginal this is perhaps the most generally diffused over the island; and it is one which occurs more at intermediate and *rather* lofty altitudes than in absolutely the highest spots. In other words, it would seem to me to be *less* attached to the cabbage-trees (although found amongst them occasionally) than to the asters and gumwoods,—which, on the average, range a little lower than the former as regards elevation; and this perhaps is the reason why it appears to have adapted itself more than most of the other species to the trees which have been introduced,—the gumwoods, which covered so large an area in the intermediate districts, having been almost entirely destroyed, and oaks, pines, acacias, &c. planted in their stead. Thus at Plantation and at Oakbank, where the gumwoods must have once reigned supreme, the *A. conicollis* has now (since the well-nigh total disappearance of those interesting trees) attached itself mainly to the various kinds of oak; and in Vine-Tree Gut

(below Halley's Mount) it is common amongst the willows. But in places where the gumwoods still remain—as, for instance, in Peak Gut and at Thompson's Wood—it absolutely swarms; and this is equally the case amongst the "*Little Gumwoods*" (or arborescent asters) above West Lodge and towards Lufkins. Amongst the cabbage-trees (as just stated), which ascend into the highest parts of the island, it is not quite so universal; nevertheless I have met with it towards Diana's Peak and Actæon, as well as at Cason's and High Peak,—at the former of which it was taken likewise by Mr. Gray.

There can be no fear of confounding this singular Cossonid with any thing else which concerns us here,—its short, ovate-elliptic, and extremely convex body, added to its brassy, highly-polished, and but *very* slightly sculptured surface, its conical prothorax (which is of precisely the same width behind as the base of the elytra, the two segments being in one continuous curve), the largeness of its femoral spine, and the rather long and *subequal* first and second joints of its funiculus giving it a character which it is impossible to mistake.

111. *Acanthomerus ellipticus*, n. sp.

A. elliptico-fusiformis, nigro-æneus, nitidus, calvus; rostro breviter sublineari, postice (saltem in ♂) obsolete subangustiore, et (præsertim in ♂) supra arcuatim convexo (a fronte subdiviso), distincte punctulato, oculis prominulis; prothorace vel (in typicis) profunde, vel (in aberrantibus) levius minutiusque punctato; elytris postice attenuatis, substriato- (interdum tantum subseriatim) punctatis, in interstitiis punctis minoribus subuniseriatim notatis; antennis pedibusque crassis, piceis, illis ad basin rufescentibus, tarsis ferrugineis; scapo brevi et gradatim valde clavato; funiculi articulis (1^{mo} obtriangulati excepto) brevibus, subæqualibus, latis (præsertim in ♂), transversis, moniliformibus; tarsorum art^o 3^{io} parum distincte bilobo. *Subtus* in medio parcissime punctatus.

Variat (rarius) colore fere nigro, subcyanescente.

Var. β (in formam typicam gradatim transiens).—Submajor, omnino minus grosse sculpturatus; funiculi articulis paululum minus transversis.

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

Habitat (saltem in statu typico) in ligno antiquo *Asteris glutinosi*, Roxb. (anglice "Scrubwood"), in aridis ad et juxta "the Barn."

Sed quoque lignum *Commidendri robusti*, D.C. (anglice "Gumwood"), "var. β " æqualiter destruit,—ad "Thompson's Wood," necnon in ascensu montis "Flagstaff," abundans.

Owing to the instability of its sculpture, and its slight *primâ facie* resemblance to the following one, the present *Acanthomerus* is somewhat less easy to define than most of the others; and yet it certainly cannot be confounded with the *monilicornis*, however closely the two may be allied. In what I have regarded as its *normal* phasis (under which circumstances the prothorax is deeply punctured, and the funiculus-articulations are very broad and transverse), it appears to be more especially attached to the scrubwood (*Aster glutinosus*, Roxb.),—within the dead branches of which it was taken by Mr. P. Whitehead on the Barn, and in that immediate vicinity; but it is also equally common amongst the true gumwoods (*Commidendron robustum*, D.C.),—as at Thompson's Wood, and sparingly even at Plantation,—where the sculpture is usually much finer, and the joints of the funiculus are not *quite* so wide. In this latter aspect I have met with it likewise, in profusion, on the slopes of Flagstaff Hill, in the *direction* of the Barn, within the cavities of the dried stems of the common gorse; but I imagine that in that particular locality (although so near to the Barn) it must be looked upon as pertaining to the *quondam* fauna of the gumwoods (which are said to have covered the plains beneath), rather than to the scrubwood,—which reigns supreme, even still, upon the Barn. I have tried in vain to detect any thing like a constant character to separate these two states, their distinctive features seeming to me to be so variable that they pass imperceptibly into each other. Occasionally perhaps the points of discrepancy are more apparent than real,—for it is certain that in the male sex the rostrum is shorter, convexer, and more coarsely sculptured, and the antennæ are appreciably thicker; nevertheless, in spite of this, the gumwood specimens are, on the average, unless indeed I am much mistaken, a trifle larger and less strongly sculptured than those from the scrubwood, and their antennæ are not quite so incrassated.

Apart from its brightly brassy surface, which is common to the whole genus, the present *Acanthomerus* is principally remarkable, in its *typical* condition, for its very deeply and coarsely punctured prothorax; though, as just mentioned, the punctures in some examples (as, for instance, those from the gumwoods, which I have

cited above as the "var. β ") are comparatively so small and faintly impressed (unless indeed an additional, proximate species is indicated, the distinctions of which I have failed to recognize) that this particular character can hardly be said to obtain. But, apart from the punctuation, there is a peculiarity about its rostrum and antennæ (at all events in the males),—the former, which is short and parallel, being convex and curved, and somewhat divided from the forehead by an indentation or line; whilst the latter have their scape abbreviated and much incrassated anteriorly, and their funiculus also (at any rate in the normal examples) extremely thickened, the joints being broad and transverse. Its general outline is fusiform, the elytra being rather narrowed towards their apex.

112. *Acanthomerus monilicornis*.

A. oblongo-fusiformis, nigro-æneus, nitidiusculus, calvus; rostro breviter sublineari, crassiusculo, profunde, rugose et dense punctato, necnon (præsertim in ♂) subopaco, oculis magnis, prominulis; prothorace minus grosse sed densissime, æqualiter, arguteque punctulato; elytris (basi recte truncatis) dense ruguloso sed inæqualiter punctatis ac plus minus obsolete striatis (punctis subconfusis, et dense sublongitudinaliter dispositis); antennis (in ♂ sublongioribus) brunneo-piceis, ad basin rufescentioribus; pedibus longiusculis, crassis, piceis, tarsis ferrugineis; funiculi art^{is} (1^{mo} obtriangulari excepto) brevibus (præcipue in ♀), subæqualibus, submoniliformibus; tarsorum art^o 3^{tio} latiusculo, et valde conspicue bilobo. *Subtus* in metasterno grosse sed haud dense punctatus.

Variat (rarius) colore fere nigro, subcyanescente.

Long. corp. lin. $1\frac{2}{3}$ –2.

Microxylobius monilicornis, Woll., *Ann. Nat. Hist.* iv. 410 (1869).

Acanthomerus monilicornis, Id., *Trans. Ent. Soc. Lond.* 653 (1873).

Microxylobius monilicornis, Melliss, *St. Hel.* 152 (1875).

Habitat in intermediis insulæ, arbores varias, præcipue *Quercus*, colens, ad Plantation abundans. In ligno antiquo *Commidendri robusti*, DC., æque invenitur.

This is the common *Acanthomerus* at Plantation,—where it swarms in the dead branches and trunks of the various species of oak, as well as in the crevices of old posts &c.; and I am inclined to think that it be should looked upon as having been attached originally to the gumwoods, which must once have been dominant throughout that district; and I have taken it amongst the gumwoods at Thompson's Wood, where, however, it is less abundant than the *A. ellipticus*.

At any rate it is more particularly a species of intermediate altitudes; though I believe that on one occasion I met with a single example of it towards the central ridge.

The *A. monilicornis* agrees with the *ellipticus* in the shortened joints of its funiculus, which, however, are rather less decidedly *transverse*; nevertheless it is (on the average) a trifle larger and more oblong than that species, it being less distinctly narrowed posteriorly; its rostrum is a little thicker, and (in both sexes) less shining (indeed nearly opake), and *very* much more coarsely and thickly punctured; its prothorax (although less roughly sculptured than the rostrum) is also more densely and uniformly punctulated all over; its elytra, too (which are more straightly truncate at their base), are more closely, as well as more confusedly, punctured; its eyes are appreciably larger; its whole surface is not quite so polished; and the third joint of its feet is more conspicuously widened and bilobed.

AA. *Femora mutica*. [ACANTHOMERI aberrantes.]

(Subgenus *Chrysotrogus*, Woll.)

113. *Acanthomerus similis*, n. sp.

A. præcedenti primâ facie similis, sed femoribus simplicibus (omnino inarmatis); rostro paululum minus lineari, sc. postice obsolete latiore crassiore (ergo submagis triangulari), sensim minus opaco minusque rugose punctato; prothorace vix subconvexiore aut magis globoso, paululum minus densissime punctulato; elytris postice paulo magis attenuatis, ac subminus dense et subminus confuse punctatis.

Long. corp. lin. $1\frac{2}{3}$ – $2\frac{1}{4}$.

Habitat in ligno arido antiquo *Commidendri robusti*, DC. (anglice "Gumwood"), atque *Asteris glutinosi*, Roxb. (anglice "Scrubwood"), in intermediis insulæ.

In size and general aspect this *Acanthomerus* bears so strong a *primâ facie* resemblance to the *A. monilicornis* that, before accurately examined, it might well be confounded with that species. It will be seen, however, to differ from it essentially in having its femora *unarmed* (a fact which removes it into another section of the genus); and it further recedes in its rostrum being a trifle less linear, or more triangular (it being just appreciably more widened behind), as well as a little more shining and less coarsely punctured; in its

prothorax being, if any thing, somewhat convexer or more globose, and not *quite* so closely punctulated; and in its elytra, which are perceptibly more attenuated behind (though not quite so much so as in the *A. ellipticus*), being a *little* less densely and less confusedly punctured.

Like the *A. ellipticus*, the *similis* appears to be attached mainly to the gumwoods and the scrubwood, though especially perhaps the former. I have taken it amongst the old gumwoods in Peak Gut, as well as amongst those towards Lufkins and in Thompson's Wood; and I also met with it sparingly at Plantation, and on the ascent of Flagstaff Hill. By Mr. P. Whitehead it was captured on the Barn, amongst the shrubs of the *Aster glutinosus*, Roxb., or scrubwood.

114. *Acanthomerus debilis*.

A. elongate fusiformi-ovatus (antice attenuatus, pone medium rotundate ampliatus), angustulus, nigro-æneus, nitidissimus, calvus; rostro sublineari, argute et distincte punctulato, oculis sat magnis sed haud prominentibus; prothorace angustulo, ovali, fere impunctato (punctis sc. levissimis ac plus minus evanescentibus); elytris elongato-ovatis basi recte truncatis, levissime substriato-subpunctatis, per basin ipsissimam granulis perpaucis asperatis; antennis pedibusque longiusculis, piceis, illarum capitulo tarsisque clarioribus; funiculi art^o 2^{do} quam primus paululum longiore; tarsorum art^o 3^{tio} valde distincte bilobo. *Subtus* in medio parcissime et levissime subasperato-punctatus.

Variat (rarius) colore nigro, subcyanescente.

Long. corp. lin. $1\frac{1}{4}$ —vix 2.

Microxylobius debilis, Woll., *Ann. Nat. Hist.* iv. 407 (1869).

Acanthomerus debilis, Id., *Trans. Ent. Soc. Lond.* 653 (1873).

Microxylobius debilis, Melliss, *St. Hel.* 151 (1875).

Habitat in intermediis insulæ, ad Plantation, Thompson's Wood, West Lodge, et cæt., abundans; rarius in locis valde excelsis.

It is more in the intermediate districts than in the highest ones that the present species occurs; for while it is comparatively rare in the loftiest parts of the great central ridge (though I have met with it sparingly towards Diana's Peak and High Peak), it absolutely swarms at Plantation, as well as in such spots as Vine-Tree Gut, Thompson's Wood, and the *Aster*-grove beyond West Lodge overlooking Lufkins. From which I infer that it is the gumwoods and arborescent asters (or "little gumwoods") to which it was originally attached, rather than the cabbage-trees. Nevertheless, in the regions from which the gumwoods have gradually disappeared

(or nearly so), it has adapted itself most completely to many of the introduced trees, particularly the oaks; and at Plantation it often clusters within the crevices of old gates and posts,—from which it may be seen to crawl (especially after showers), adhering to them, however, with great tenacity. At Plantation it was taken also by Mr. Gray, during the first few days of our sojourn at St. Helena.

The *A. debilis* is rather peculiar in outline,—it being narrow, but nevertheless a good deal rounded-outwards behind the middle (causing it to appear much attenuated in front); it is also extremely brilliant, or highly polished, though often of a *darkly*-brassy tint; and its striæ and punctures, except the minute ones on the rostrum (which is nearly linear), are generally so lightly impressed that the surface at first sight seems to be well-nigh unsculptured. Its prothorax is oval and narrowish, its third tarsal joint is conspicuously bilobed; and its elytra have usually a few small asperated granules, or points, along their extreme basal edge.

115. *Acanthomerus cylindricus*, n. sp.

A. cylindricus, angustissimus, nigro-æneus, nitidissimus, fere calvus (oculo fortissime armato minutissime parcissimeque cinereo-pubescent); rostro (a fronte impressione subdiviso) lineari, distincte (in ♂ distinctius) punctato, oculis parvis sed prominentibus; prothorace elongato-ovali, levissime sed haud minute punctato (punctis interdum evanescentibus); elytris longissimis, subfusiformi-cylindricis, grosse sed levissime substriato-punctatis; antennis pedibusque rufo-piceis; funiculi arti^æ 1^{mo} et 2^{do} longitudine æqualibus; tarsis brevibus, arti^o 3^{tio} distincte bilobo. *Subtus* in medio grosse sed levissime punctatus; metasterno longiore.

Long. corp. lin. $1\frac{1}{2}$ –2.

Habitat inter ramulos fractos desiccatos emortuos *Commidendri robusti*, DC. (anglice “Gumwood”), necnon etiam humi sub foliis dejectis, in intermediis ad Thompson’s Wood parce lectus.

This is one of the rarest and most peculiar of the *Acanthomeri* which have hitherto been detected; and it is one which, from its comparatively elongated metasternum and the fact of its being very minutely but sparingly studded with a short microscopic pubescence, well-nigh merits generic separation. Yet, if it must be assigned to any of the acknowledged groups, there is not one that will receive it so readily (barring the length of its metasternum) as that section of

the present genus in which the exponents are free from the spine on the two hinder femora which constitutes so anomalous a feature in *Acanthomerus* proper. The *A. cylindricus*, however, is a very remarkable insect,—its more than usually brightly-polished, brassy surface (the punctures of which, although somewhat large, are most faintly impressed), in conjunction with its extremely narrow and *cylindrical* outline, its rather short but linear rostrum, its small but prominent eyes, and its *greatly elongated* elytra, giving it a character which is essentially its own.

It appears to be the gumwood (*Commidendron robustum*, DC.) to which the present *Acanthomerus* is attached. At any rate the only spot in which I met with it was Thompson's Wood,—where I obtained about twenty examples, by sifting fallen leaves and the broken-up sticks of the old gumwoods for which that particular locality is so famous.

116. *Acanthomerus angustus*.

A. fusiformis, nigro-æneus, nitidiusculus, fere calvus (oculo fortissime armato in elytris minutissime parceque cinereo-pubescentibus); rostro longiusculo, lineari, minutissime (postice distinctius) punctulato, oculis magnis, subprominulis; prothorace densissime punctato; elytris fusiformibus basi truncatis, dense et subconfuse substriato-punctatis, versus humeros et apicem minute granulato-asperatis; antennis pedibusque subgracilibus, nigro-piceis, illarum capitulo abrupto, rotundato, clariore; funiculi (sublaxi) art° 2^{do} paulum longiore quam primo; tibiis (præsertim in ♂) subcurvatis; tarsorum art° 3^{tio} distincte bilobo, ult^{mo} elongato. *Subtus* in medio grosse, dense, et profunde punctatus; metasterno mediocri (nec brevissimo).

Variat (rarius) colore obscuriore, fere nigro.

Long. corp. lin. $1\frac{1}{2}$ –2.

Microxylobius angustus, Woll., *Ann. Nat. Hist.* viii. 403 (1871).

Acanthomerus angustus, Id., *Trans. Ent. Soc. Lond.* 653 (1873).

Microxylobius angustus, Melliss, *St. Hel.* 151 (1875).

Habitat ad arbores antiquas *Commidendri robusti*, DC., et *Asteris glutinosi*, Hk. f., in aridis intermediis (e. g. the Barn et Thompson's Wood), rarius.

It is to the gumwood and scrubwood that the *A. angustus* is attached, particularly perhaps the latter. I have taken it very sparingly amongst the old gumwoods in Thompson's Wood; and it was met with by Colonel Warren, adhering to the foliage of the

scrubwood, on the Barn,—a locality in which it has likewise been captured, as well as in the immediate vicinity, by Mr. P. Whitehead. So far, however, as my own experience is concerned, it is decidedly scarce; though in all probability it will be ascertained to be not uncommon amongst the scrubwood, when the fauna of that remarkable shrub has been fully investigated.

Next to the *armatus* (which, however, is comparatively gigantic), the *A. angustus* is the largest of the *Acanthomeri* which have yet been brought to light; nevertheless, as regards bulk, it is a variable species,—the most highly developed examples almost doubling the smallest ones. It is fusiform in outline (much after the pattern of the *Lamprochrus cossonoides*); and its tibiæ, particularly in the male sex, are more curved than in any other members of the genus except the *A. asperatus*. Its rostrum is parallel, its prothorax is very densely punctured, its eyes are large (but not particularly prominent), its elytra are rather thickly and confusedly sculptured, as well as slightly asperated with raised granules towards the shoulders and apex, and its limbs (which are darkish in hue) are somewhat thin and wiry. Its antennæ have their capitulum, which is rounded and abrupt, a little paler; and the funiculus has the first and second joints (the former of which is, perhaps, a trifle shorter than the latter) slightly elongated.

117. *Acanthomerus asperatus*, n. sp.

A. breviter elliptico-fusiformis (in medio latiusculus, antice et postice attenuatus), læte æneus, nitidissimus, fere calvus (oculo fortissime armato minutissime cinereo-pubescent); rostro lineari, crassiusculo, distincte punctato, ad apicem obsolete canaliculato, oculis magnis sed haud valde prominentibus; prothorace paulo minutius sed densissime punctulato; elytris ellipticis basi subbiarcuatim truncatis, in disco antico convexis, leviter punctato-striatis, interstitiis latis et subruguloso-punctatis, exterioribus convexis et (una cum apice) dense granulato-asperatis; antennis pedibusque elongatis, illis rufo-ferrugineis; funiculi (laxi) art° 2^{do} multo longiore quam primo; capitulo magno, elongato, oblongo, sed haud valde abrupto; pedibus crassis, femoribus (grosse granulato-asperatis) tibiisque (subcurvatis, præcipue intermediis) piceis, tarsis ferrugineis, art° 3^{io} distincte bilobo. *Subtus* in medio leviter asperato-punctatus (fere granulatus).

Long. corp. lin. vix 2½.

Habitat inter arbusculas *Asteris glutinosi*, Roxb. (anglice "Scrub-

wood"); ad promontorium præruptum aridum boreale "the Barn" dictum a Dom. P. Whitehead semel repertus.

I have seen hitherto but a single example of this curious and well-marked *Acanthomerus*,—which was taken by Mr. P. Whitehead, amongst the viscous shrubs of the scrubwood (or *Aster glutinosus*, Hk. f.), on the Barn. It must be regarded therefore as a scrubwood species; and I may add that there are few members of the scrubwood fauna (as yet brought to light) which are more interesting than the *A. asperatus*.

Apart from its very brightly brassy hue and elliptic-fusiform outline (which is much widened in the centre, and almost equally attenuated both before and behind,—the posterior region appearing, consequently, to be unusually pointed or narrowed), the present *Acanthomerus* may be recognized by its robust, thickened legs (which have their femora very coarsely asperated, their tibiæ, particularly the intermediate ones, appreciably curved, and their third tarsal joint conspicuously bilobed), by its large but not very prominent eyes, its closely but rather finely punctulated prothorax, and by its elytra being very densely covered towards their sides and apex with sharp but minute granules. Its surface, moreover, is not quite bald, but will be seen, when viewed beneath a high magnifying-power, to be studded, especially on the elytra (which are slightly *biarcuated* anteriorly), with a diminutive cinereous pubescence. Its antennæ are rather long, with the second joint of their funiculus *considerably* lengthened, and their capitulum large and oblong.

118. *Acanthomerus terebrans*. (Fig. 6.)

A. breviter ovato-fusiformis, æneus aut nigro-æneus (interdum obsoletissime subviridi tinctus), nitidus, calvus; rostro lineari, distincte punctato, oculis haud valde prominentibus; prothorace (elytris sensim angustiore) subtriangulâri-ovato, vix minutius dense punctato; elytris ovalibus basi subemarginato-truncatis, leviter substriato-punctatis, per basin ipsissimam granulis perpaucis asperato-terminatis, striis antice breviter profundioribus, interstitiis latis et distincte punctatis; antennis tarsisque rufoferrugineis, funiculi (laxi) art.^{is} 1^{mo} et 2^{do} subæqualibus; femoribus tibiisque æneo-piceis; tarsorum art.^o 3^{tio} valde distincte bilobo.

Subtus in medio parce punctatus.

Variat (rarius) colore fere nigro, subcyanescente.

Long. corp. lin. $1\frac{1}{2}$ – $2\frac{1}{4}$.

Microxylobius terebrans, Woll., *Trans. Ent. Soc.* v. 382, pl. 18. f. 7 (1861).

———, *Id.*, *Ann. Nat. Hist.* iv. 406 (1869).

Acanthomerus terebrans, *Id.*, *Trans. Ent. Soc. Lond.* 653 (1873).

Microxylobius terebrans, Melliss, *St. Hel.* 151 (1875).

Habitat in editioribus insulæ, *Compositas* arborescentes varias copiose destruens.

This is one of the most abundant, and widely spread, of all the *Acanthomeri* which have hitherto been detected,—occurring particularly, however, amongst the cabbage-trees and arborescent asters of a lofty altitude. Along the whole central heights, from Diana's Peak and Actæon to Stitch's Ridge, Cason's, High Peak, and West Lodge, it is universal,—congregating beneath the loose fibrous bark of the *Pladaroxylon leucodendron*, Hk. f., and the *Melanodendron integrifolium*, DC.; and in the aster-grove beyond West Lodge, overlooking Lufkins, it literally swarms. But it scarcely descends into the strictly "intermediate" districts,—the least-elevated point at which I observed it being Vine-Tree Gut, below Halley's Mount. It was captured likewise by Mr. Gray; and it is a species which was first placed on record by myself, on the evidence of two examples which were found by the late Mr. Bewicke, during a day's collecting in the island in 1860.

The rather short and *ovate-fusiform* outline of the *A. terebrans* (the brightly brassy surface of which varies occasionally into a subcyaneous-black), added to its densely (but not very coarsely) punctulated prothorax, and the deepened anterior portions of its striæ, which cause the base of the elytra to appear at first sight to be somewhat impressed with a series of abbreviated longitudinal furrows, will serve sufficiently to distinguish it.

119. *Acanthomerus obliteratus*.

A. præcedenti similis, sed paulum crassior ac magis ovatus, in medio sublatior (prothorace subconvexiore, elytris sensim convexioribus ac magis rotundatis), etiam nitidior, sc. nitidissimus; rostro præsertim in ♀) paululum longiore; sculpturâ omnino (sed præcipue in elytris) submagis grossâ, tamen multo leviores (sc. punctis striisque subobliteratis, his haud profundioribus ad basin elytrorum); antennarum capitulo minus abrupto, pedibusque sensim crassioribus.

Long. corp. lin. circa 2.

Microxylobius obliteratus, Woll., *Ann. Nat. Hist.* iv. 407 (1869).

Acanthomerus obliteratus, Id., *Trans. Ent. Soc. Lond.* 653 (1873).

Microxylobius obliteratus, Melliss, *St. Hel.* 151 (1875).

Habitat in intermediis aut subelevatis insulæ, rarior.

I think it is scarcely likely that this *Acanthomerus* can be any local state, or phasis, of the *A. terebrans*, peculiar perhaps to the gumwoods (instead of the cabbage-trees), though the two have undoubtedly a good deal in common. Judging from the few examples to which I have access (for it is clearly one of the rarer members of the genus), it is altogether a little thicker and more ovate than that species, and more mesially-widened (the prothorax and elytra being, each of them, more convex, and the latter more rounded); and it is even still more shining (being very highly polished); its rostrum is appreciably longer; its antennal club is less abrupt; its legs are more incrassated; and its entire sculpture (except on the rostrum), although coarser or less fine, is very much more *lightly impressed*,—the punctures and striæ of the elytra, the latter of which are *not* more deeply grooved at their base than elsewhere, being well-nigh obliterated.

I have taken this *Acanthomerus* amongst the old gumwoods in Peak Gut; and it was met with by Mr. P. Whitehead on *likewise* the eastern side of the great central ridge, though further to the northward,—beyond (and below) Cason's. Where Mr. Melliss's original examples, from which I enunciated the species, were procured I have no means of ascertaining.

Genus 54. EULOPTODERUS (nov. gen.).

Corpus elongate fusiformi-ovatum, calvum, semipolitum (sc. in parte nitidum et in parte opacum), in rostro prothoraceque densissime et grossissime rugoso-sculpturatum, sed in elytris subnoduloso-inæquale; *rostro* longiusculo, subgraciliter elongato-subtriangulari, *oculis* parvis sed subprominulis, *scrobe* infra oculos subcurvate ductâ; *prothorace* subovato, antice leviter constricto; *scutello* obsoleto; *elytris* elongato-subovatis, hinc inde gibbulosis; *meta-sterno* brevi; *abdominis* segm^{tis} 1^{mo} et 2^{do} inter se arcissime connatis (lineâ valde indistinctâ divis). *Antennæ* mox ante medium rostri insertæ, subgraciles; *scapo* longiusculo; *funiculo* 5-articulato, laxo, art^o 2^{do} elongato (sc. 1^{mo} sensim longiore). *Pedes* *antici* parum, *intermedii* paululum magis, et *postici* latius (tamen haud remote) distantes; *tarsis* longiusculis, art^o 3^{to} latiusculo et distincte bilobo.

Ab εὔ, bene, κόπτω, seco, et δέρη, collum.

The anomalous sculpture of the two singular Cossonids which constitute the present genus, the prothorax and rostrum of which are most coarsely, roughly, and densely *wrinkled* (rather than punctured) with subconfluent, fold-like flexuosities, or confused *vermiform* subreticulating ridges, in conjunction with their slightly nodulose, uneven elytra, their rather slender, elongate-subtriangular rostrum, piceo-*æneous* hue, and the lengthened second joint of their funiculus, seem to refer them to a totally different type from *Microxylobius*; whilst the same characters, with the exception of the brassy tinge of their surface and their somewhat produced second funiculus-articulation, almost equally prevent their association with the aberrant *Acanthomeri*, in which the femora are unarmed with a basal spine. Their anterior coxæ are more appreciably removed from each other than is usual in these immediate groups, being by no means even *subcontiguous*; and their general surface, although quite bald, has, from the tendency to inequalities which it possesses, and the fact of its being partially bright and partially opake (as though *semi-polished*), a somewhat sericeous or silken appearance.

120. *Eucoptoderus vermiculatus*, n. sp.

E. elongate fusiformi-ovatus, calvus, vel *æneo-piceus* vel piceo-*æneus*; rostro longiusculo, subgraciliter elongato-subtriangulari, postice rugose et subconfluenter costulato-striguloso et indistincte punctato, subopaco sed versus apicem nitido, et ibidem minute punctulato, oculis parvis; prothorace densissime grossissimeque confluentur vermiculato-plicato, subopaco; elytris subnodulosis, inæqualibus, grosse subundulatim striatis (striis latis sed indistincte punctatis), subopacis sed versus suturam plus minus *æneo-micantibus* (quasi sc. semipolitis), interstitiis convexis; antennis pedibusque piceo-testaceis. *Subtus* in medio grosse et profunde, sed vix densissime, punctatus.

Long. corp. lin. 2-2½.

Habitat in insulæ editioribus, sub ligno antiquo late sed parce diffusus.

I have already called attention to the *primâ facie* characters of this curious Cossonid, the marvellously sculptured prothorax and rostrum of which give it such a peculiar appearance. It seems somewhat scarce, and to be confined to the higher parts of the island,—though descending as low as about 2300 feet above the sea. My examples are principally from the neighbourhood of Diana's

Peak and Actæon; but I also met with it at Cason's, where it has attached itself partially to the dead pines, and at West Lodge.

121. *Eucoptoderus affinis*, n. sp.

E. præcedenti similis, sed prothorace multo minus grosse sculpturato; elytris vix magis rotundatis et utrinque vix magis alutaceis, multo minus profunde striatis (striis minus grossis tamen evidentiùs punctatis), interstitiisque latoribus ac depressis (nec convexis). Subtus minus grosse punctatus.

Long. corp. lin. $1\frac{7}{8}$ – $2\frac{1}{3}$.

Habitat sub ligno antiquo ramulisque fractis emortuis; in editioribus supra West Lodge, Februario ineunte, a meipso repertus.

It is not altogether impossible that this may represent in reality but a permanent state, or modification, of the last species; nevertheless I was not able to meet with any intermediate links. It seems to differ from the *E. vermiculatus* in having its prothorax very much less coarsely sculptured, and in its elytra (which are just appreciably rounder in outline) being not only more *alutaceous* on either side, but with their striæ finer and more lightly impressed (though rather more evidently *punctate*), and with their interstices wider and less convex. Its underside also is less coarsely punctured.

The few examples which I have seen of this *Eucoptoderus* (seven in number) were captured by myself, after the early summer rains at the beginning of February, on the extreme and precipitous edge of the central ridge immediately above West Lodge and overlooking the great Sandy-Bay crater. They were adhering to small pieces of wood and old sticks, in the vicinity of the *Aster gummiiferus*, Hk. fil., or "Little Bastard Gumwood."

Genus 55. **CHALCOTROGUS** (nov. gen.).

Corpus elliptico- aut potius bielliptico-fusiforme, fere calvum, semipolitum (sc. in parte nitidum et in parte opacum), minus sculpturatum; *rostro* elongato, gracili, lineari sed in ♂ ad apicem (i. e. ad antennarum insertionem) leviter dilatato-ampliato, in ♀ aut fere aut omnino simplici; *oculis* minutis sed subprominulis; *scrobe* infra oculos oblique ductâ; *prothorace* ovali aut elliptico, interdum rotundate ampliato, antice vix constricto, postice lineâ marginato; *scutello* obsoleto; *elytris* vel obovato- vel elongato-ellipticis, utrinque pone medium gibbulosis aut inæqualibus, fere quasi subnodulosis; *metasterno* vel brevissimo (ut in typicis), vel mediocri; *abdominis* segm^{tis} 1^{mo} et 2^{do} inter se arctissime connatis (lineâ valde indistinctâ divisis), et, una cum metasterno, longitudinaliter

sat concavis. *Antennæ* ante medium rostri insertæ; *funiculo* 5-articulato, laxo, art^{is} 1^{mo} et 2^{do} longiusculis, subæqualibus. *Pedes antici* fere contigui, *intermedii* paululum magis distantes, atque etiam *postici* haud late remoti; *tarsis* breviusculis, crassiusculis, art^o 3^{tio} minute bilobo.

A χαλκός, æs (sc. æneus), et τρώγω, edo. [Typus: *Chalcotrogus apionides*.]

Although unwilling to multiply genera unnecessarily amongst these numerous forms of the *Cossonidæ*, I nevertheless cannot but consider that the three singular insects which I have regarded as representing the present group cannot by any possibility be assigned to even the "aberrant" (or spineless) *Acanthomeri*,—from which they altogether recede in their long, narrow rostrum (which in the male sex is slightly *expanded anteriorly*, at the insertion of the antennæ), their extremely minute but rather prominent eyes, their subcontiguous fore coxæ, the less dilated third joint of their more abbreviated feet, in their somewhat *bi-elliptical* outline (the prothorax and elytra being more than usually *separately-elliptic*, and the former liable in one of the species to considerable development), and in their very anomalous sculpture. This last indeed is on a most unusual type,—the surface being partly brilliant and partly alutaceous and opake (a peculiarity which, to a certain extent, is shadowed forth likewise in *Eucoptoderus*), as though *half-polished*; it having much the appearance, in consequence, although practically bald, of what we may be permitted to express as *ænescent satin*. Their prothorax is margined behind, the margin being formed by a very regular subbasal line; and their elytra are more or less *uneven* on either side beyond the middle,—the inequalities taking the *primâ facie* appearance of either very obsolete nodules (as in *Eucoptoderus*), or else of irregular scabrous spaces.

a. *Metasternum brevissimum*.

122. *Chalcotrogus apionides*, n. sp.

C. breviter elliptico-fusiformis (in medio latiusculus, antice et postice attenuatus), vel nigro- vel piceo-æneus, semipolitus (sc. hinc inde nitidus, et hinc inde alutaceo-opacus), oculo fortissime armato minutissime parcissimeque cinereo-pubescent (præcipue in elytris); rostro longiusculo, gracili, ad antennarum insertionem (in ♂ distincte, in ♀ obsolete) subquadrato-latiore, subopaco, minutissime et parce punctulato; oculis minutis sed subprominulis;

prothorace (elytris sensim angustiore) ovali, punctulis minutissimis parce irrorato, ad basin anguste marginato, inæqualiter alutaceo-opaco sed antice nitido; elytris ellipticis (aut obovatis) basi truncatis, convexis, fere non sculpturatis (sc. obsoletissime substriato-subpunctatis), utrinque pone medium inæqualibus aut obsolete subnodulosis, antice et postice alutaceo-opacis sed in medio gradatim politissimis; antennis pedibusque rufo-ferrugineis; funiculi art^{is} 1^{mo} et 2^{do} subæqualibus; tibiis posticis in ♂ paulo curvatis; tarsorum art^o 3^{uo} minutissime subbilobo. *Subtus* in medio nitidulus, leviter et parcissime punctulatus.

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

Habitat in ligno *Compositarum* arborescentium emortuo antiquo marcido, necnon interdum etiam sub truncis *Pinorum* in editioribus; parce occursens.

The short, elliptico-fusiform, mesially-widened, *Apion*-like outline of this remarkable little Cossonid would, of itself, almost suffice to distinguish it from every thing else with which we are here concerned. Its rostrum is rather long and slender, and appreciably widened towards the tip (at the point of insertion of the antennæ), particularly, however, in the male sex; and the first and second joints of its funiculus are about equal, and only slightly elongated. Its surface is well-nigh unsculptured,—the rostrum and prothorax (which are nearly opake, though *unevenly* so, except the anterior edge of the latter which is brilliant) being but very sparingly sprinkled with most diminutive punctules, whilst the punctures and striæ of the elytra (which last are alutaceous and opake before and behind, but gradually highly polished across the central region) are nearly obsolete. The legs are a little longer in the males than in the females; and in the former sex the two posterior tibiæ are perceptibly curved. In colour it is either of a blackish brass, or else of a dark æneo-piceous.

The *C. apionides* is extremely scarce, and confined to the high central ridge,—where normally it is, without doubt, attached to the damp and decayed wood of the old cabbage-trees. In such situations I have met with it along the “Cabbage-Tree Road,” immediately below Diana’s Peak and Actæon; but at Cason’s, like so many of the Cossonids in that particular locality, it has adapted itself almost equally to the pines,—beneath the dead trunks of which I captured it, not uncommonly, particularly about February, in company with the *Pseudomesoxeni* and various species of *Microxylobius*, after the early summer rains.

123. *Chalcotrogus oblongior*, n. sp.

C. præcedenti similis, sed paulo major et oblongior (in medio minus rotundato-amplius); rostro longiore et graciliore, ab apice usque ad basin gradatim paululum subangustiore, in ♀ [♂ adhuc latet] nullo modo ad antennarum insertionem dilatato, postice rugosius densiusque punctulato (etiam fronte dense et rugose punctulatâ); prothorace elytrisque vix evidentius punctulatis, his minus convexis; antennis sublongioribus, funiculi art° 2^{do} quam primus sublongiore.

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

Habitat in editioribus insulæ, rarissimus; a meipso bis lectus.

Of this species I have seen hitherto but two examples, which were taken by myself on the high central ridge. Unfortunately they are both of them females; so that I am not able to decide whether the rostrum is at all apically-dilated (at the insertion of the antennæ) in the males. In the female, however (in which sex of the *C. apionides* there is at all events a *faint* widening), there is no trace whatever of any thing like an expansion,—it being perfectly slender throughout, though, if any thing, *gradually narrowed* from the extreme tip to the base. This greater length and thinness of the rostrum, added to its perfect freedom (at any rate in the female sex) from a dilatation, or thickening, at the implantation of the antennæ, and the fact of its being much more densely and roughly punctulated (the punctules extending moreover, between the eyes, onto the forehead, which is comparatively free from sculpture in that species), constitute its main points of divergence from the *C. apionides*. It is, however, in addition to this, a little larger and more oblong (or less mesially-widened) than that insect; its elytra are less convex; and its antennæ (which are a trifle longer) have the second joint of their funiculus just appreciably more lengthened than the first one (instead of being equal to it).

aa. *Metasternum mediocre*.

124. *Chalcotrogus semipolitus*, n. sp.

C. angustulus, elongate bielliptico-fusiformis (sc. prothorace elytris-que singulatim ellipticis, inter se bene divisis), æneus, semipolitus (sc. hinc inde nitidus, et hinc inde alutaceo-opacus), fere calvus; rostro elongato, gracili, ad antennarum insertionem in ♂ paululum subquadrato-latiore, in ♀ fere simplici (sed a basi usque ad

apicem gradatim obsolete latiore), in ♂ subopaco et distincte punctulato sed in ♀ paulum longiore graciliore minutius punctulato et antice nitido; oculis minutis sed subprominulis; prothorace elliptico, vel ad latera valde rotundato-ampliato (elytris multo latiore) vel angustiore, minutissime et parce (sed interdum distinctius) punctulato, ad basin marginato, inæqualiter alutaceo- (et substriguloso-) opaco sed antice paululum nitidior et ibidem rugosius transversim striguloso; elytris elongato-ellipticis basi truncatis, plerumque vix striatis et vix punctatis sed interdum interrupte substriato-punctatis, irregulariter transversim rugatis et utrinque pone medium inæqualibus, aut obsolete scabroso-subnodulosis, hinc inde (præsertim ad apicem et utrinque pone medium) alutaceo-opacis et hinc inde nitidioribus; antennis tarsisque rufo-ferrugineis. *Subtus* in medio subopacus, leviter sed parum grosse punctatus.

Long. corp. lin. $1\frac{3}{4}$ – $2\frac{1}{3}$.

Habitat sub ligno antiquo in editioribus insulæ, late diffusus.

Obs.—Species formâ sculpturâque variabilis,—prothorace ad latera plus minus rotundato-ampliato atque interdum evidentius punctulato, elytris plus minus transversim rugatis ac punctatis. Colore rarius nigrescenti- aut virescenti-cyaneo.

Although widely spread along the whole central ridge—where I have taken it about Diana's Peak and Actæon, as well as at Cason's, High Peak, and West Lodge (and on one occasion even below Halley's Mount)—the present singular Cossonid does not appear to descend into the "intermediate" districts, it being attached to the old wood of the various arborescent *Compositæ*. At Cason's, however, it has adapted itself a good deal to the pines, like so many of the cabbage-tree species in that particular locality; and I also observed a similar tendency in it at Rock Rose.

The *C. semipolitus* is one of the most beautiful of the St.-Helena Cossonids; and yet, owing to its variability both in stature and outline, it is certainly one of the most difficult ones to describe. From the great development of the prothorax in the larger individuals and its comparative narrowness in the smaller ones, as well as from the fact that the latter are very frequently a little more decidedly punctured (neither of which characters appear to be in any way sexual), I felt it probable at first that two distinct species would be indicated; nevertheless, after overhauling very carefully 117 examples which are now before me, I have been forced to the conclusion that they are all of them specifically identical, and

that a certain inconstancy in bulk, contour, and sculpture is the utmost that can safely be inferred.

It is but very seldom that the brightly ænescent hue of the *C. semipolitus* becomes (as in so many of the *Acanthomeri*) darker, or of a somewhat metallic black; but its curious surface (which has already been alluded to) is perhaps on the whole a little less opake, yet at the same time *in parts* less brilliant, than in the *C. apionides*. In size, however, it is *very* much larger and more elongated than in that insect,—its prothorax being proportionally more developed (*sometimes* very conspicuously so), and its elytra (which are more uneven and transversely wrinkled) less shortened and more *regularly* elliptical; its rostrum is relatively longer, and less widened in the males (in which sex it is opake and coarsely punctured) at the insertion of the antennæ, whilst in the female there is no appearance whatever of any dilatation at all (the rostrum being merely a little *gradually narrowed*, as in the *C. oblongior*, from the apex to the base); and its metasternum is much less abbreviated.

Genus 56. LAMPROCHRUS.

Wollaston, *Trans. Ent. Soc. Lond.* 450 et 520 (1873).

Corpus magnum, fusiforme, in elytris distincte (tamen minute) pubescens, nitidum; *rostro* (præsertim in ♀) elongato, gracili, lineari, in ♂ paulo robustiore et brevior necnon ante medium (ad antennarum insertionem) conspicue et elongate dilatato-ampliato; *oculis* subprominulis; *scrobe* longe ante oculos oblique ductâ; *prothorace* breviter subovali, antice vix constricto; *scutello* obsoleto; *elytris* elongato-fusiformibus basi truncatis, postice dense granulato-asperatis; *metasterno* brevi; *abdominis* segm^{tis} 1^{mo} et 2^{do} inter se arctissime connatis (lineâ valde indistinctâ divis) et, una cum metasterno, longitudinaliter concavis. *Antennæ* elongatæ, graciles, in ♀ ante medium sed in ♂ paulo magis versus apicem rostri insertæ; *scapo* elongato, gracili; *funiculo* 5-articulato, gracili, laxo, art^o 2^{do} valde elongato (quam primus multo longiore); *capitulo* magno, oblongo. *Pedes* longissimi, *antici* fere contigui, *intermedii* paululum magis distantes, atque etiam *postici* haud late remoti; *tarsis* longissimis, art^o 1^{mo} elongato, 3^{tio} lato et valde distincte profundeque bilobo, ult^{mo} longissimo.

The magnificent Cossonid for which I proposed the present genus, in 1873, is altogether one of the largest and finest members of the family with which I am acquainted,—not merely in St. Helena but elsewhere; and although evidently akin to *Chalcotrogus* and the

aberrant *Acanthomeri*, there cannot be a doubt that it well deserves (indeed positively requires) generic separation. Apart from its somewhat gigantic stature (for an exponent of the Pentarthrideous section of the *Cossonidæ*) and its brassy surface (which it possesses in common with so many of the immediately allied forms), it is at once remarkable for the structure of its rostrum (which in the females is extremely elongated, narrow, and *filiform*, but a little robuster and shorter in the males, and conspicuously widened *before the middle* at the insertion of the antennæ), as well as for the unusual length of its limbs—the scape, the second joint of the funiculus, and the first and last ones of the feet being (as compared with what one observes in the allied genera) greatly elongated,—and for its conspicuously and deeply bilobed third tarsal articulation. As in *Chalcotrogus*, its anterior coxæ are well-nigh contiguous; and even the intermediate ones are but slightly separated; its elytra (which, like the femora, are much roughened behind with asperated granules) are very decidedly sprinkled with a short cinereous pubescence; and its antennæ are (not merely long, but also) remarkably slender.

125. *Lamprochrus cossonoides*.

L. magnus, fusiformis, nigro-æneus, nitidulus, in elytris conspicue sed breviter cinereo-pubescent; rostro in ♀ longissimo, gracili, lineari, polito, minutissime punctulato, sed in ♂ paulum robustiore, brevior, vix minus nitido evidentiusque punctulato, necnon ante medium (ad antennarum insertionem) elongate ampliato; capite dense punctulato; prothorace dense (præsertim versus latera) et sat profunde punctato; elytris elongato-ellipticis aut fusiformibus, convexis, profunde substriato-punctatis, interstitiis latis et distincte irregulariter punctatis, postice transversim rugatis et dense granulato-asperatis; antennis tarsisque longissimis, ferrugineis, illis gracilibus, funiculi art^o 2^{do} longissimo, femoribus grosse granulato-asperatis, his art^o 3^{tio} valde conspicue et profunde bilobo. *Subtus* in medio dense et grosse punctatus.

Variat (rarius) colore piceo atque etiam subcyanescenti-nigro.

Long. corp. lin. $2\frac{2}{3}$ –4.

Microxylobius cossonoides, Woll., *Ann. Nat. Hist.* viii. 403 (1871).

Lamprochrus cossonoides, Id., *Trans. Ent. Soc. Lond.* 653 (1873).

Microxylobius cossonoides, Melliss, *St. Hel.* 151 (1875).

Habitat in editioribus insulæ (rarissime in regionibus intermediis), ad folia *Asteris gummiferi*, Hk. f., præcipue adhærens. Inter *Commidendron robustum*, DC., multo rarius occurrit.

By Mr. Melliss this beautiful Cossonid was taken on the highest part of the central ridge, in the vicinity of Diana's Peak; and it was found sparingly by Mr. Gray in the same locality during the first month of our sojourn at St. Helena. Subsequently I met with a few examples of it myself in the identical spot (where it was likewise captured by the Rev. H. and Mr. P. Whitehead), as well as upon an *Aster gummiferus* at Cason's; and I may add that, if no other *habitat* for the species had been observed, the *L. cossonoides* would have ranked amongst the rarest of the aboriginal Coleoptera. Fortunately, however, I happened to detect it in the *Aster*-grove beyond West Lodge and overlooking Lufkins, and which (although so small) occupies one of the few accessible areas on the precipitous inner wall of the great Sandy-Bay crater, where the native arborescent *Compositæ* (represented there, entirely, by the two rare *Asters*—the *gummiferus* and *Burchellii*) have not been entirely destroyed; and by constant visits to that particular spot I secured a considerable number of examples. In very few instances, however, could I obtain them from within the old trunks and sticks (the principal resort of the Cossonids), nearly the whole of my specimens having been beaten off the foliage into my sweeping-net. This is a peculiarity on which I would lay considerable stress; and it is one which is all the more remarkable on account of the tearing wind which scarcely ever ceases to play (in consequence of the south-east trades) against those marvellously exposed slopes. So boisterous indeed was the breeze, on nearly every occasion when we succeeded in reaching that remote little copse, that it was with difficulty that I could even open my net; and yet, in spite of constant driving mist and every possible disadvantage, I never once failed to brush the *L. cossonoides* (sometimes eight or nine of it at a single beat) from the sticky leaves of the asters. But this *modus vivendi* is clearly its normal one, the unusually expanded third joint of its unusually elongated feet (as compared with the adjacent forms) giving it, in conjunction with the viscous foliage of the shrubs, a manifest power of adhesion, in the teeth of the most boisterous gales, which is neither possessed nor required by the species (even in the selfsame locality) which lie concealed within masses of rotting wood.

Although so eminently attached to the *Aster gummiferus* (and the well-nigh extinct *A. Burchellii*), I nevertheless met with a single example of the *L. cossonoides* on the foliage of one of the true gum-woods (*Commidendron robustum*, DC.) between Peak Dale and

Lufkins, at a much lower elevation than the *Aster*-grove to which I have just called attention, but at the same time *almost immediately beneath* it; and it is not impossible, therefore, that it may have been a chance one which had been conveyed accidentally from the (more or less) *Aster*-covered cliffs above. At any rate I did not obtain the species amongst any other genuine gumwoods, and I do not think that it belongs properly to the real gumwood fauna. As for the few individuals on the extreme summit of the high central ridge, I suspect that it must have been from an *Aster gummiferus* that they were brushed off, though I do not remember to have observed that shrub in the neighbourhood of Diana's Peak; for I possess no evidence that the species is attached in any way to the cabbage-trees.

Genus 57. **XESTOPHASIS** (nov. gen.).

Corpus magnum, fusiforme, calvum, politum; *rostro* longiusculo, robusto, ad basin subconstricto aut strangulato, dein supra alte gibboso, dein (usque ad apicem) subito et valde decurvo, in ♂ ad antennarum insertionem (i. e. in medio) facile sed conspicue incrassato, ad basin (in utroque sexu) longitudinaliter obtriangulariter excavato; *oculis* parvis sed prominulis; *scrobe* valde profundâ et argutissime determinatâ, angustâ, longissimâ, sc. *ab apice* rostri *ipso* usque ad basin sub oculos curvate ductâ; *prothorace* ovali-subconico, antice leviter constricto; *scutello* obsoleto; *elytris* elongato-fusiformibus, æqualibus; *metasterno* mediocri; *abdominis* segm^{tis} 1^{mo} et 2^{do} inter se arctissime connatis (lineâ valde indistinctâ divis). *Antennæ* graciles, in ♂ in medio sed in ♀ mox pone medium rostri (et scrobis) insertæ; *funiculo* 5-articulato, laxo, art^o 2^{do} primo paululum longiore. *Pedes* subgraciles, *antici* parum, *intermedii* paululum magis, atque etiam *postici* haud latissime distantes; *tarsis* art^o 3^{tio} sat minute sed distincte bilobo.

A ξερὸς, calvus, et φάσις, facies.

Considering the very great similarity of their robust and anomalously formed rostra (which are somewhat narrowed, or strangulated, at the base, then much raised, or gibbose, to about the middle, from which point to the apex they are suddenly and most unusually deflected, while in the centre behind they are *obtriangularly* branded or scooped out), I had at first imagined that the two curious insects for which the present genus and the following one are established might prove to be widely differing members of a single group. And even now indeed I cannot but feel that this is *possible*; though a close examination has revealed so many discrepancies, which are

more or less structural, that I think it safer to treat them as exponents of independent but nearly allied assemblages, of which we may expect that others will yet occur. In their small but rather prominent eyes they are also on much the same pattern *inter se*, as well as in the proportions of their funiculus-joints; nevertheless *primâ facie* they are almost totally dissimilar,—*Xestophasis* having the body fusiform, bald, shining, and brassy, with the elytra *even*, the metasternum moderately elongated, and the third articulation of the feet decidedly bilobed; whereas in *Tapiromimus* the body is large and oblong, conspicuously setose, opaque, and nearly black (it being entirely unmetallic), with the metasternum short, and the third tarsal joint comparatively simple. Moreover, even as regards the rostrum (which embodies their main point of resemblance), the two species are by no means similar; for whilst in *Tapiromimus* (unless indeed I am much mistaken) it is nearly *alike in both sexes* (it being robust but only *very obsoletely* widened mesially), in *Xestophasis*, on the other hand, it is in the females *equally simple* (although longer, narrower, and less curved), but mesially-thickened to a most remarkable extent (in addition to being shorter) in the males. And, besides all this, the implantation of the antennæ constitutes another item of divergence; for while in *Tapiromimus* they are ante-median (I believe) in both sexes, in *Xestophasis* they are median in the males and *post-median* in the females. And the scrobs, which in *Xestophasis* is narrow and groove-like, and most anomalously carried from the *extreme apex* of the rostrum to the extreme base (below the eye), the antennæ being inserted in the middle of it and behind the middle, respectively, in *Tapiromimus* commences at some distance from the tip and extends backwards (to below the eye) as a broad and open channel*.

* Expressed concisely, the main distinctive features which separate these two genera may be recorded thus:—

Corpus calvum, politum, æneum; *rostro* in ♂ in medio conspicue incrassato, in ♀ longiore graciliore minus arcuato et fere simplici; *scrobe* angustâ, longissimâ, sc. *ab apice* rostri *ipso* usque ad (sed *infra*) oculos curvate ductâ; *elytris* fusiformibus, æqualibus; *metasterno* mediocri. *Antennæ* in ♂ in medio, sed in ♀ mox pone medium rostri (et scrobis) insertæ. *Pedes* subgraciles; *tarsorum* artº 3^{tiº} anguste sed distincte bilobo XESTOPHASIS.

Corpus magnum, pubescens, opacum, niger; *rostro* in utroque sexu quasi arcuatim distorto, tamen subsimili; *scrobe* ab *ultra medium* rostri usque ad (sed *infra*) oculos latissime curvate ductâ; *elytris* oblongis basi late subsinuato-truncatis, utrinque pone medium obsoletissime subnoduloso-inæqualibus; *metasterno* brevi. *Antennæ* in utroque sexu ante medium rostri insertæ. *Pedes* crassi; *tarsorum* artº 3^{tiº} minutius ac minus evidenter bilobo (sc. fere simplici) TAPIROMIMUS.

126. *Xestophasis nasalis*, n. sp.

X. elongato-fusiformis, angustula, nigro-ænea, nitida, calva; rostro robusto, ad basin substrangulato, supra in medio (præsertim in ♂) gibboso, dein usque ad apicem valde arcuato-deflexo, in ♀ longissimo arcuato-sublineari aut pone medium obsoletissime crassiore minute punctulato, in ♂ paulo brevior et multo crassior (sc. gradatim pone medium valde incrassato) necnon rugosius punctato, in utroque sexu (sed præsertim in ♂) ad basin elongate obtriangulariter impresso aut exciso; oculis subprominulis; prothorace ovali-subconico, antice leviter constricto, grosse, profunde, et parum dense punctato; elytris elongato-fusiformibus, grosse substriato-punctatis, interstitiis distincte subseriatim punctatis; antennis pedibusque subgracilibus, illis tarsisque ferrugineis, funiculi art^o 2^{do} paululum longiore quam prime, tarsorum art^o 3^{tio} anguste sed distincte bilobo. *Subtus* in medio grosse sed vix densissime punctata.

Long. corp. lin. 3–3 $\frac{2}{3}$.

Habitat ad folia, necnon in ligno antiquo *Commidendri robusti*, DC. (anglice “Gumwood”); ut mihi videtur, rarissima.

This singular Cossonid, so remarkable for the structure of its basally strangulate, superiorly gibbose, and anteriorly decurved rostrum (which is comparatively long and narrow in the females, but mesially thickened in the males to an extraordinary extent, and which has the antennæ median in the latter sex, but *post*-median in the former) is one of the rarest, so far as my experience is concerned, of all the St.-Helena Coleoptera. It appears to be attached to the *Commidendron robustum*, DC., or gumwood,—amongst the old trees of which I have taken it sparingly in Thompson’s Wood (where it was also met with by Mrs. Wollaston), as well as in Peak Gut.

Genus 58. *TAPIROMIMUS* (nov. gen.).

Corpus magnum, fusiformi-oblongum, setulosum, opacum; *rostro* (et cæt.) fere ut in genere præcedente, sc. quasi distorto, tamen in utroque sexu (nisi fallor) subsimili (nec in ♂ in medio distincte incrassato); *scrobe* brevior, postice latior, tamen valde profundâ, sc. ab *ultra medium* rostri usque ad (sed *infra*) oculos gradatim latior ductâ; *elytris* suboblongis (nec fusiformibus) basi late subsinuato-truncatis, utrinque pone medium obsoletissime subnoduloso-inæqualibus; *metasterno* brevior. *Antennæ* in utroque sexu (nisi fallor) ante medium (nec in ♂ in medio, et in ♀ pone

medium) rostri insertæ. *Pedes* crassi (nec subgraciles); *tarsorum* artº 3^{tiº} minutius ac minus evidenter bilobo.

Δ *Tapirus*, et μῖμος, imitator.

The large size of this curious insect (for a member of the Pentarthreous section of the Cossonidæ), added to its opaque setose surface and most extraordinary rostrum, would of themselves suffice for recognizing it. The short bristles with which it is everywhere studded (even on the very rostrum) become extremely fulvescent, or well-nigh golden, on the elytra,—where they are longitudinally disposed down the interstices, and gradually longer (as well as more erect) behind; and its entire surface, which is often much coated with dirt, is either of a dull black or else somewhat picescent. Its elytra, on either side behind the middle, have a very faint tendency to inequalities or nodules,—which perhaps, however, is more apparent than real, from the fact of the setæ being more conspicuous in those particular parts.

127. *Tapiromimus gibbirostris*, n. sp.

T. magnus, fusiformi-oblongus, niger aut piceo-niger, opacus, breviter fulvo-setosus; rostro robusto, ad basin substrangulato, supra pone medium alte gibboso, dein usque ad apicem valde arcuato-deflexo, in utroque sexu (nisi fallor) fere simili, sc. arcuato-sublineari aut in medio obsolete subcrassiore, minutissime punctulato, ad basin elongate obtriangulariter impresso aut exciso; oculis prominentibus; capite utrinque ad latera (fere subtus) dense asperato-punctato; prothorace oblongo-ovali, antice vix constricto, leviter, parce, et inæqualiter punctato; elytris oblongis basi late subsinuato-truncatis, leviter punctato-striatis, interstitiis latis, obsolete transversim rugatis ac minutissime subseriatim punctulatis longitudinaliterque fulvo-setosis (setis postice gradatim longioribus), utrinque pone medium obsoletissime subnoduloso-inæqualibus; antennis tursisque ferrugineis, funiculi artº 2^{do} primo paululum longiore; pedibus crassis, tarsorum artº 3^{tiº} minutius ac minus evidenter bilobo. *Subtus* in medio grossissime sed haud valde profunde punctatus.

Long. corp. lin. $3\frac{2}{3}$ — $4\frac{1}{3}$.

Habitat in ligno antiquo emortuo marcido *Compositarum* arborescentium, in locis valde elevatis humidis; rarissimus.

This is one of the rarest of the Cossonids which have hitherto been found at St. Helena,—seven examples being all that I could obtain during our six months' sojourn in the island. They were

found on the high central ridge, in the immediate neighbourhood of Actæon and Diana's Peak; and as they were more or less in connexion with the damp decayed wood of the old cabbage-trees, the species in all probability belongs to the aboriginal cabbage-tree fauna.

Genus 59. **TYCHIORHINUS** (nov. gen.).

Corpus oblongum aut ovale, pubescens, opacum; *rostro* longiusculo, gracili, vel omnino lineari vel postice gradatim obsolete sublatiore; *oculis* vel parvis vel minutissimis; *scrobe* infra oculos profunde ductâ; *prothorace* sæpius subquadrato-ovali, antice vix constricto; *scutello* obsolete; *elytris* vel oblongis vel ovalibus, basi plus minus emarginato- (rarius recte) truncatis, hinc inde (sed præsertim utrinque pone medium) plus minus noduloso- aut costulato-inæqualibus; *metasterno* brevi; *abdominis* segm^{tis} 1^{mo} et 2^{do} inter se arctissime connatis (rarius distincte separatis), lineâ valde indistinctâ (rarius distinctâ) divisâ. *Antennæ* ante medium rostri insertæ; *funiculo* 5-articulato, art^{is} 1^{mo} et 2^{do} longitudine subæqualibus. *Pedes* *antici* fere contigui, *intermedii* paululum magis, atque etiam *postici* haud latissime distantes; *tarsis* brevibus, art^o 3^{tio} minute bilobo.

A *Tychius*, et *ρῖρ*, nasus. [Typus: *Tychiorhinus porrectus*.]

The five Cossonids for which I have proposed the present genus are rather small in stature, coarsely pubescent (but not very thickly so), and with their surface opaque and more or less deeply sculptured and uneven,—the elytra having a tendency for obscure costiform nodules, occasioned by the greater or less breaking-up of the raised alternate interstices. Their rostrum is rather long and slender (sometimes gradually a *trifle* widened behind); their eyes are minute (in one species extremely so); their first and second funiculus-joints are not much produced, and pretty nearly of equal length; and their feet are short, with the third articulation rather indistinctly bilobed. In one of the exponents (the *T. variolosus*) the first two segments of the abdomen are divided by a conspicuous line of separation (which is very unusual amongst these immediate Cossonideous forms); but in the others they are closely soldered together. The whole five species are peculiar to the high central ridge, and appear to be attached normally to the damp rotting wood of the old cabbage-trees.

A. *abdominis* segm^{ta} 1^{mum} et 2^{dum} lineâ distinctâ divisâ.
variolosus.

AA. *abdominis* segm^{ta} 1^{mum} et 2^{dum} arctissime connata.
a. *scapus* longiusculus, facile clavatus.

than in the other species) are rather more *subcostulate* on either side than nodulose,—the sublateral interstice being more elevated than the remainder; and the first and second segments of its abdomen are very unusually divided by a conspicuous transverse line.

129. *Tychiorhinus porrectus*, n. sp.

T. oblongus, fere opacus, ferrugineus, parce et brevissime cinereo-pubescent; rostro (præsertim in ♀) elongato, gracili, lineari, minute (in ♂ distinctius) punctato, oculis minutis; prothorace quadrato-ovali, densissime et grosse rugoso-punctato (punctis subconfluentibus); elytris parallelo-oblongis, profunde et dense striato-punctatis, interstitiis transversim rugatis, laterali valde elevato, humeros conspicue porrectos costamque exstantem lateralem subapicalem efficiente, utrinque intra humeros subconcavis; antennis pedibusque (crassis) concoloribus. *Subtus* in medio grosse, dense, et confuse punctatus.

Long. corp. lin. 2–2 $\frac{1}{3}$.

Habitat in editioribus, rarissimus; ad Cason's intra lignum *Compositarum* arborescentium antiquum, necnon etiam sub truncis *Pinorum*, lectus.

Like the other members of this genus, the present one is confined apparently to the central ridge; but, so far as my own experience is concerned, it descends a trifle lower than the *T. variolosus* and *lineatus*,—the whole of my examples (only eleven, however, in number) having been taken by myself at Cason's. Although without doubt attached normally to the cabbage-trees (from within the loose rotting masses of which some of my individuals were obtained), it would appear nevertheless, like so many of the Cossonids in that particular locality, to have adapted itself to the pines,—beneath the old fallen trunks of which the majority of my specimens were captured.

The *T. porrectus* is easily recognized by its pale, ferruginous hue, and its *straightened* (though by no means particularly narrow) elytra,—which have the shoulders greatly porrected. This latter fact is due to the lateral interstice being unusually raised and *continuous* (for it shapes-out likewise a very prominent lateral costa towards the apex),—the general surface of the elytra, although transversely rugate, being hardly at all *nodulose*. Its rostrum is very slender and elongate (especially in the females); and the eyes, although small, are not quite so minute as in the *T. variolosus*.

130. *Tychiorhinus inæqualis*, n. sp.

T. subquadrato-oblongus, opacus, niger, parce sed distincte griseo-pubescent; rostro (præsertim in ♀) elongato, gracili, lineari, rugose (in ♂ etiam rugosius) punctato, oculis parvis; prothorace quadrato-ovali, inæquali, densissime et grosse rugoso-punctato (punctis subconfluentibus); elytris latiuscule subovato-quadratis, profunde tuberculato- (vix punctato-) striatis, interstitiis (præsertim alternis) elevatis, interruptis, nodulos elongatos plus minus efficientibus, ad humeros (tamen minus quam in specie præcedente) porrectis; antennis tarsisque rufo-piceis, pedibus crassis. *Subtus* in medio grosse, dense, et confuse punctatus.

Long. corp. lin. 2-2½.

Habitat ad lignum antiquum *Compositarum* arborescentium, in editioribus insulæ; rarissimus.

This species is slightly broader than the *T. porrectus*, and it is therefore perhaps (on the average) somewhat the largest of the *Tychiorhini* which have hitherto been brought to light. It is also abundantly distinct from the *porrectus* in being black instead of ferruginous, and in having its elytra (which are more coarsely clothed with a sparing griseous pubescence) a little less *straightened* at the sides, and more or less roughened with elongated nodules,—and, therefore, more *uneven*. The prothorax, as in the *T. porrectus*, is rather large and oval-quadrate.

Although of extreme rarity, I have nevertheless taken the *T. inæqualis* in widely distant parts of the great central ridge (to which it seems to be peculiar),—namely amongst the sticks and wood of the old cabbage-trees about Diana's Peak and Actæon, as well as (under similar circumstances) at Cason's, and at the edge of the precipice, or crater-wall, immediately above West Lodge.

131. *Tychiorhinus subochraceus*, n. sp.

T. ovali-oblongus aut subellipticus, fere opacus, piceus aut piceo-niger et obsolete subæneo-tinctus, distincte subcinereo-pubescent; rostro longiusculo, gracili, lineari, minute punctulato, oculis minutis; prothorace quadrato-ovali sed postice conspicue angustiore, inæquali (sc. in disco profunde canaliculato, et utrinque foveâ rotundatâ impresso), dense sed haud valde profunde subconfuse punctato; elytris subovalibus basi subemarginato-truncatis, profunde punctato-striatis (punctis grossis, rarius obsoletis), interstitiis elevatis interruptis, nodulos elongatos costiformes plus minus

efficientibus; antennis rufo-piceis; pedibus piceo-testaceis. *Subtus* in medio grosse, dense, et confuse punctatus.

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

Habitat in locis similibus ac præcedens; sed paulo magis frequens.

The present species is altogether a little smaller and more oval than the last one; its prothorax (which is deeply channelled down the centre and has a rounded impression on either side of the disk) is conspicuously *narrowed behind*, as well as (like the rostrum) less coarsely punctured; its legs are very much paler; and its entire surface is less black,—being more or less of a brownish piceous, and with a faint ochreous tinge.

Although scarce, the *T. subochraceus* is, next to the *lineatus*, the commonest of the *Tychiorhini* which have hitherto been detected. It is emphatically a native of the loftiest altitudes; for although I obtained a single example of it at Cason's (where the central ridge is somewhat less elevated than it is in certain other parts), the remainder of my specimens (37 in number) were captured either about Diana's Peak and Actæon, or else towards the summit of High Peak. There can be no question that it belongs to the aboriginal cabbage-tree fauna.

132. *Tychiorhinus lineatus*, n. sp.

T. ovalis (aut fere subovatus), opacus, fusco-piceus, minute et parvissime fulvo-pubescent; rostro longiusculo, gracili, lineari, minutissime punctulato, et fere ferrugineo, oculis minutis; prothorace breviter quadrato-ovali sed postice sensim angustiore, æquali, fere impunctato; elytris ovalibus basi subemarginato-truncatis, fere esculpturatis sed lineis 4 angustissimis fulvo-pubescentibus (interdum fractis, rarius obsoletis) ornatis; antennis piceo-ferrugineis, scapo breviusculo et abrupte clavato; pedibus piceo-testaceis. *Subtus* in medio minutissime, levissime, et parce punctatus.

Long. corp. lin. $1\frac{1}{4}$ – $1\frac{1}{3}$.

Habitat in locis valde elevatis; sub cortice laxo emortuo *Compositarum* arborescentium præcipue latens.

Although I have regarded this insect as a *Tychiorhinus* (on account, mainly, of its slender rostrum, minute eyes, and general appearance), it nevertheless belongs to a slightly different type from the four preceding species,—characterized by its more ovate outline, its well-nigh *unsculptured* and *even* surface, and by the fact of its scape being a little shorter and more suddenly clavate. In colour it is of a more

or less piceous brown, or even brownish ferruginous; its prothorax and elytra (as just mentioned) are practically unpunctured and free from inequalities (the elytra being merely ornamented with four extremely narrow, thread-like, occasionally broken-up, fulvo-pubescent lines); and its legs are nearly testaceous.

The *T. lineatus* is excessively common beneath the loose and dead fibre-like bark, as well as under damp masses of the rotting wood, of the old cabbage-trees, on the highest portion of the central ridge, about Actæon and Diana's Peak; but I did not meet with it in any other locality.

Genus 60. **CRYPTOMMATA** (nov. gen.).

Corpus elongate ovato-fusiforme, minute et parcissime pubescens, opacum; *rostro* elongato, gracillimo, lineari sed in ♂ ad antenarum insertionem paulo ampliato; *oculis* (in rostro ipso conspiciue sitis) minutis; *scrobe* infra oculos subsinuate ductâ; *capite* parte prothoracis anticâ omnino abscondito; *prothorace* valde elongato, subovali, antice obtuse producto, cucullum efficiente; *scutello* obsoleto; *elytris* elongato-ovatis basi recte truncatis et filo-marginatis, ubique leviter et subregulariter subnoduloso- aut costulato-inæqualibus; *metasterno* brevissimo; *abdominis* segm^{tis} 1^{mo} et 2^{do} arctissime connatis (lineâ valde indistinctâ divisis). *Antennæ* in ♂ ante medium sed in ♀ magis versus apicem rostri insertæ; *funiculo* 5-articulato, laxo, art^o 2^{do} conspiciue longiore quam primo. *Pedes* breves (præsertim *postici*) et crassi, *antici* contigui, *intermedii* paululum distantes, *postici* parum separati; *tarsis* brevibus, crassis, art^o 3^{tio} distincte bilobo.

Α κρυπτός, occultus, et ὄμμα, oculus.

The most curious insect from which I have drawn out the above generic diagnosis is one of the rarest of the St.-Helena Cossonids, three examples only (a male and two females) being all that I have yet seen. In its slender, filiform rostrum and minute eyes (which, however, are placed more than usually upon the rostrum itself) it has perhaps more in common with *Tychiorhinus* than with any thing else; nevertheless it is totally dissimilar to the members of that group in its anteriorly much-produced prothorax, which completely conceals the head (and almost the eyes),—forming a kind of obtusely rounded *hood*. This structure is exceedingly rare in the *Cossonidæ*, the members of which nearly always have the head partially exposed and visible from above; and it further recedes from *Tychiorhinus* in the more elongated second joint of its funi-

culus, in the more bilobed third one of its feet, in its perfectly contiguous fore coxæ, and in its rostrum (which, when the insect is in a state of repose, is much deflected, or bent downwards) being in the male sex appreciably widened, as in *Chalcotrogus*, at the insertion of the antennæ.

133. *Cryptommata cucullata*, n. sp.

C. elongate ovato-fusiformis, opaca, nigra, minutissime et parcissime cinereo-pubescent; rostro elongato, gracillimo, in ♀ lineari sed in ♂ ad antennarum insertionem sensim incrassato, densissime rugoseque asperato-punctulato, oculis minutis; prothorace magno, longissimo tamen subregulariter ovali (sc. antice obtuse producto, quasi cucullum efficiente, capite omnino tegente), ad latera grossissime et confuse corrugato-rugoso, in medio tenuiter carinulato et punctulis levissimis parce irrorato; elytris ovalibus, convexis, late sed vix profunde striatis, interstitiis obtuse elevatis, interruptis, nodulos elongatos aut costas breves efficientibus; pedibus crassis, piceis, tarsis antennisque piceo-ferrugineis. *Subtus* pone medium dense, grosse, et confuse punctata.

Long. corp. lin. circa $2\frac{1}{2}$.

Habitat in elevatis insulæ, rarissima; inter ramulos emortuos fractos (*Asteris gummiiferi*, Hk. f.?) in præruptis supra West Lodge, Februario ineunte, reperta.

I have already called attention to some of the more structural peculiarities of this remarkable Cossonid; and I will merely therefore add, that its deep-black hue and perfectly opaque, almost unpunctured surface (which beneath a high magnifying-power will be seen to be very sparingly studded with a minute cinereous pubescence, and which on the elytra is somewhat longitudinally disposed), in conjunction with its anteriorly-produced, elongate-oval prothorax (the sides of which are coarsely wrinkled or corrugated), its densely and minutely roughened rostrum, and the fact of its elytral interstices being broken-up into but slightly raised elongated nodules, or abbreviated ridges, will serve still further to distinguish it.

My three examples of the *C. cucullata* were captured by myself, after the early summer rains, about the beginning of February, amongst dead and broken-up sticks (I believe of the *Aster gummiiferus*, Hk. f.), at the extreme edge of the great precipice, or crater-wall, immediately above West Lodge. It is not unlikely, therefore, that they may represent one of the nearly extinct members of the now rapidly disappearing *Aster* fauna.

Fam. 26. RHYNCHOPHORIDÆ.**Genus 61. CALANDRA.**

Clairville, *Ent. Helv.* i. 62 (1798).

134. Calandra oryzae.

C. elliptica, depressa, piceo-nigra (interdum picea), opaca, in elytris minute longitudinaliter cinereo-setulosa; rostro gracili, lineari sed postice (ad antennarum insertionem) subito ampliato, minute et parce punctulato; prothorace elongato, triangulari, antice profunde constricto, grosse et profunde punctato; elytris ovalibus basi late truncatis, postice abbreviatis, densissime striato-punctatis, interstitiis angustis ac paulo elevatis, maculis duabus (sc. unâ humerali et alterâ longe pone medium) rufo-testaceis, interdum obscuris, ornatis; antennis pedibusque piceo-ferrugineis.

Variat interdum colore omnino dilutiore, maculis suffusis.

Long. corp. lin. $1\frac{1}{2}$ – $2\frac{1}{2}$.

Curculio oryzae, Linn., *Amœn. Acad.* vi. 395 (1763).

Sitophilus oryzae, Woll., *Col. Atl.* 265 (1865).

— —, *Id.*, *Col. Hesp.* 125 (1867).

— —, *Melliss, St. Hel.* 153 (1875).

Habitat in domibus granariisque insulæ, nimis vulgaris. Etiam sub cortice arborum laxo emortuo in cultis interdum latet.

The common biscuit-weevil, which is so destructive to various kinds of food and stores, and the range of which has become well-nigh cosmopolitan (at any rate in tropical and subtropical countries), is only too abundant in the houses of St. Helena (particularly in Jamestown),—as it is in the Cape-Verde, Canarian, Madeiran, and Azorean archipelagos. At Plantation I have met with it occasionally even beneath the dry and loosened bark of trees; but the species has, of course, no kind of connexion with the true fauna of the island.

Fam. 27. TANYRHYNCHIDÆ.

(Subfam. SYNAPTONYCHIDES.)

Genus 62. NESIOTES.

Wollaston, *Journ. of Ent.* i. 211 (1861).

Corpus vel ovatum vel elongato-ovatum, plus minus grosse squamoso-pubescent, sæpius opacum sed interdum nitidiusculum; *rostro* breviusculo, sublineari, sed postice interdum gradatim suban-

gustiore et interdum sublatiore; *oculis* distinctis (rarius minutis et valde prominentibus), in specie typicâ nitidis et omnino egranulatis, sed in reliquis opacis et grosse granulatis; *prothorace* subovali, antice vix (rarius profunde) constricto; *scutello* obsoleto; *elytris* aut ovatis aut elongato-ovatis, basi truncatis, vel æqualibus vel obsoletissime subcostulato-inæqualibus; *metasterno* breviusculo; *abdominis* segm^{tis} 1^{mo} et 2^{do} arctissime connatis (lineâ indistinctâ divisis). *Antennæ* ante medium rostri insertæ; *scapo* aut calvo, aut intus plus minus evidenter barbato; *funiculo* 5-articulato, gracili, laxo, art^o 2^{do} vel conspicue vel vix longiore quam tertio, 3^{tio}, 4^{to} et 5^{to} parvis, rotundatis, moniliformibus. *Pedes* vel crassi et dense squamosi, vel graciliores ac minus squamosi; *antici* parum, *intermedii* multo magis, et *postici* sat late distantes; *tarsis* sæpius breviusculis, art^o 3^{tio} plus minus distincte bilobo.

[Typus: *Nesiotes squamosus*.]

According to the late Professor Lacordaire, the affinities of this curious genus are with *Echinosoma* from Madeira, *Synaptonyx* from Australia, and the European *Trachodes*; and the four genera were consequently erected by him into a little subfamily (under the title of *Synaptonychides*) of his sixteenth tribe "*Tanyrhynchides*." Although I was perfectly content, without further evidence, with this conclusion, the shrewdness of Lacordaire's remarks has nevertheless, since, been unexpectedly corroborated by the discovery of additional exponents which approach far nearer (than the original type) to the singular *Echinosoma porcellus* of the Madeiran archipelago; for it was only the *N. squamosus* that I was enabled to communicate to him for inspection; and in that species the scape is altogether bald, the eyes are shining and egranulate, and the whole surface is unpunctured though densely clothed with a thick *decumbent* squamiform pubescence. But now that other members have been brought to light, in addition to the *N. squamosus*, some of the most remarkable features of *Echinosoma* have presented themselves; for not only are the eyes on the ordinary, opaque, coarsely granulated pattern, and the body and legs thickly beset with *erect bristles*, but in at any rate two of the species (the *N. barbatus* and *fimbriatus*) the entire contour is in complete accordance with that of their more northern analogue, and (which is the most important of all) the inner edge of their scape is conspicuously furnished with a cluster of long, incrassated setæ. The extreme rarity of this character (last-mentioned) in the *Rhynchophora*, added to its presence in *Echinosoma* and in at any rate a portion of *Nesiotes*, suggests (to my mind)

a point of connexion which is perhaps more significant and conclusive than any other; though the rather lax and slender 5-jointed funiculus of the two genera is another item in which they approach each other most unmistakably.

The exponents of this genus are peculiar to intermediate and lofty altitudes; and the majority of them are certainly attached to the dead wood of the old cabbage-trees. One, however (the *N. simplex*), may perhaps be attendant on the tree ferns; and the smallest and most abundant species of the whole (namely the *N. asperatus*) was in all probability, like the *N. fimbriatus*, a member of the gumwood fauna, which has adapted its mode of life to the altered circumstances of the times. The 10 species which have hitherto been brought to light may be thus tabulated:—

- A. *oculi nitidi, omnino egranulati.*
squamosus.
- AA. *oculi opaci, grosse granulati.*
 - a. *oculi minutissimi sed valde prominentes; scapus intus longe et conspicue barbatus.*
barbatus,
fimbriatus.
 - aa. *oculi majores. scapus vel fere vel omnino calvus.*
 - β. *funiculi art° 2^{do} conspicue longiore quam tertio.*
breviusculus,
horridus,
gracilis,
minor.
 - ββ. *funiculi art° 2^{do} paululum longiore quam tertio.*
simplex,
asperatus,
ascendens.

135. *Nesiotes squamosus.* (Fig. 7.)

N. ovatus, nigro-piceus, opacus, alutaceus (sed haud aliter sculpturatus), squamis crassis demissis cinereo-fulvis (in femoribus tibiisque densissime) vestitus; rostro (postice gradatim paululum angustiore) interdum fere calvo, nitido, et minutissime parce punctulato, oculis nitidis, omnino egranulatis; prothorace convexo, postice gradatim angustiore; elytris breviter ovatis basi truncatis, convexis, ventricosis; antennis tarsisque calvis, rufo-ferrugineis; funiculi art° 2^{do} multo longiore quam tertio.

Long. corp. lin. $1\frac{1}{4}$ – $1\frac{2}{3}$.

Nesiotes squamosus, *Woll., l. c.* 212, pl. 14. f. 3 (1861).

— — —, *Id., Ann. Nat. Hist.* iv. 413 (1869).

— — —, *Melliss, St. Hel.* 154 (1875).

Habitat in locis valde elevatis, lignum *Compositarum* arborescentium emortuum antiquum destruens.

Up to the date of our arrival at St. Helena, the only examples which I had seen of this singular little Curculionid were two which had been taken by the late Mr. Bewicke, during a day's collecting on the central ridge, in 1860; and it was on the evidence thus supplied that I enunciated the genus *Nesiotes* in 1861. It is an insect which is by no means common, though at the same time widely distributed over the highest altitudes,—it being evidently attached to the dead wood of the old cabbage-trees. I have met with it on the ascent and extreme summit of Diana's Peak and Actæon, particularly around the base of the latter, as well as beneath the loose fibrous bark of the various cabbage-trees along Stitch's Ridge; and I also obtained it, though less abundantly, on High Peak.

The shortly ovate, ventricose outline of the *N. squamosus*, added to its opaque and simply *alutaceous* surface (which is free from sculpture, though densely clothed with a coarse *decumbent* fulvescent squamiform pubescence, which also thickly covers the femora and tibiæ, giving them a very incrassated appearance), would of themselves suffice to characterize it. In the fact, however, of its eyes being *shining* and totally *ungranulated* it possesses an additional feature which completely separates it from every other member of the group which has hitherto been detected.



136. *Nesiotes barbatus*, n. sp.

N. ovatus, piceus, opacus, alutaceus sed vix aliter sculpturatus (sc. solum in elytris parce seriatim subasperato-punctulatus), squamis crassis, elongatis, plus minus curvatis et erectis, nigrescentibus (in femoribus tibiisque densissime) vestitus; rostro (postice gradatim paululum latiore) latiusculo; oculis minutissimis sed prominentibus; prothorace postice angustiore, antice profunde constricto; elytris breviter rotundato-ovatis basi truncatis, convexis, ventricosis; antennis pedibusque (præsertim femoribus et tibiis) brevibus, illis tarsisque calvis rufo-ferrugineis; scapo intus ad apicem longe barbato; funiculi art^o 2^{do} paululum longiore quam tertio.

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

Habitat in elevatis insulæ, rarissimus; in præruptis juxta High Peak parcissime lectus.

The only three examples which I have yet seen of this very rare *Nesiotes* were taken by myself on a precipitous and barely accessible

slope behind High Peak and overlooking Peak Gut; and, in conjunction with the *N. fimbriatus* from Thompson's Wood, it possesses a peculiar interest through the fact of its scape being powerfully barbed towards the inner apex with a cluster of coarse, elongated, squamiform bristles. This latter character, which is only faintly traceable in some of the other members of the group (and which, indeed, in the *N. squamosus* and *simplex* appears to be altogether absent), is so conspicuous in the *barbatus* and *fimbriatus* that, when taken in connexion with their minute but very prominent eyes, the stronger and more erect setæ of their entire surface, and their anteriorly much constricted prothorax, it is sufficient to place them in a different section of the genus—the species of which make a more decided approach to the *Echinosoma porcellus* of Madeira than any of the remainder.

In general contour the *N. barbatus* is shortly-ovate: and its sculpture is scarcely more than *alutaceous*,—in both of which respects it agrees a good deal with the *squamosus*; nevertheless there are traces on the elytra (beneath the elongated, erect, and darkened setæ) of a few longitudinally-disposed rows of small punctures; its colour is rather piceous than black; its legs (particularly the hinder pair, and particularly the tibiæ) are abbreviated; and its second funiculus-joint is but *very* little longer than the minute third one.

137. *Nesiotes fimbriatus*, n. sp.

N. præcedenti similis, sed multo angustior, oblongior (sc. subovato-oblongus, nec rotundato-ovatus), elytris longioribus, multo magis parallelis, minus convexis, et distinctius seriatim asperato-punctatis, tibiis paulo minus abbreviatis.

Long. corp. lin. $1\frac{1}{4}$ – $1\frac{1}{2}$.

Habitat in intermediis insulæ; inter ramulos quisquiliæque juxta arbores antiquas *Commidendri robusti*, DC., humi jacentes, ad Thompson's Wood, deprehensus.

Thompson's Wood is the only spot in which I observed this well-marked *Nesiotes*; and although the whole of my examples (22 in number) were obtained by shaking and sifting broken-up sticks and rubbish which were lying on the ground, nevertheless, since the majority of the trees in that particular locality are gumwoods, I have little doubt that the *N. fimbriatus* belongs in reality to the gumwood fauna. I have already stated that, in conjunction with the *N. barbatus*, it makes a nearer approach to the *Echinosoma por-*

cellus of Madeira than the other members of the genus. However, it is not quite so much on the *Echinosoma*-contour as that species (even while possessing the same development of thick incrassated setæ on the inner edge of its scape, and the same anteriorly-constricted prothorax); for it is considerably narrower and more oblong,—its elytra especially (which are more conspicuously marked with longitudinally-disposed asperated punctures) being very much more parallel and less convex (*i. e.* much less rounded and less ovate); and its tibiæ, although short, are not quite so abnormally abbreviated.

138. *Nesiotes breviusculus*, n. sp.

N. elongato-ovatus, piceo-niger (interdum obsoletissime subæneo tinctus), nitidulus, grosse sculpturatus squamisque crassis suberectis griseo-cinereis plus minus dense vestitus; rostro lineari, dense et rugose punctato; oculis magnis, prominentibus; prothorace postice conspiciue angustiore, antice latiusculo et vix constricto, profunde, grosse, densissime, et confuse punctato; elytris ovatis basi truncatis, nitidiusculis, profunde striato-punctatis; antennis tarsisque piceo-ferrugineis; femoribus tibiisque piceis ac breviter, parcius, et minus conspiciue squamosis; scapo fere calvo (sc. intus versus apicem pilis perpaucis gracillimis indistinctis solum obsito); funiculi art^o 2^{do} distincte (tamen haud multo) longiore quam tertio.

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

Habitat in locis elevatis, late sed parcissime diffusus.

The present *Nesiotes* belongs neither to the *fimbriatus* and *barbatus* type, nor yet to that of the *squamosus* (in both of which the femora and tibiæ are very densely squamose),—but emphatically to that which embraces the *horridus* and *gracilis*. It is a scarce species, so far as my own observations are concerned, but one which is nevertheless widely distributed along the whole central ridge,—my examples being from the vicinity of Diana's Peak, as well as from High Peak and above West Lodge; and, unless it be in any way connected with the *Aster gummiferus* (or "Little Bastard Gumwood"), which is far from impossible, I think that we must regard it as a member of the great cabbage-tree fauna.

Although much clothed, except on the limbs, with thick, erect, squamiform, *griseous* setæ (which are very liable, however, to become a good deal abraded or destroyed), the *N. breviusculus*, like the *horridus* and *gracilis*, has its surface bright instead of opaque, and coarsely sculptured,—its rostrum (which is linear) being densely

punctured, its prothorax most roughly and deeply so, and even its elytra being conspicuously striate-punctate. It has often an extremely faint ænescent tinge; its outline is relatively shorter and more ovate than that of the *horridus*; its prothorax is widened in front and narrowed behind; its eyes are large and rather prominent; and the second joint of its funiculus, although unmistakably longer than the minute third one, is nevertheless but very slightly lengthened. Although its scape is free from the robust squamiform bristles which are so conspicuous in the *N. fimbriatus* and *barbatus*, the latter are nevertheless just represented by a few fine elongated hairs, which, although indistinct except when viewed in certain lights, are generally to be traced.

139. *Nesiotes horridus*.

N. elongato-ovatus, niger aut piceo-niger, nitidulus (saltem in elytris), grosse sculpturatus squamisque crassis suberectis griseo-cinereis et cinereis plus minus dense vestitus; rostro lineari, dense et rugose punctato; oculis magnis, prominentibus; prothorace postice angustiore, antice vix constricto, profunde, grosse, et densissime punctato; elytris elongato-ovatis basi truncatis, nitidioribus, profunde striato-punctatis; antennis tarsisque piceo-ferrugineis; femoribus tibiisque longe cinereo-pilosis; scapo fere calvo (sc. intus versus apicem pilis perpaucis gracillimis solum obsito); funiculi art^o 2^{do} multo longiore quam tertio.

Long. corp. lin. 2-3.

Nesiotes horridus, *Woll., Ann. Nat. Hist.* viii. 404 (1871).

— — —, *Melliss, St. Hel.* 154 (1875).

Habitat sub cortice *Compositarum* arborescentium arido fibroso laxo, in locis valde elevatis prædominans.

Obs.—Species præcedenti affinis, sed multo major, omnino longior, antennis pedibusque longioribus, funiculi art^o 2^{do} conspicue longiore, femoribus tibiisque multo densius longiusque cinereo pilosis.

Although extremely variable in stature, this is (on the average) the largest member of the present genus which has hitherto been detected; and it is one which occurs almost exclusively in the highest altitudes,—where it congregates beneath the dead fibrous bark of the old cabbage-trees in the most exposed and windy spots. I have taken it in profusion in the direction of Diana's Peak and Actæon, as well as on Stitch's Ridge and at Cason's, and more sparingly at High Peak.

The *N. horridus* has a good deal the outline and general aspect of the *breviusculus*, though it is *very* much larger and relatively more elongated; its limbs (and second funiculus-joint) are conspicuously longer, and its femora and tibiæ are densely clothed with long, whitish or cinereous hairs. The *tendency* of the *majority* of the species of this genus is to have the squamiform pubescence of their elytra condensed into *fasciculi*, or elongated spaces; but the latter are so easily destroyed, and the surface is so apt to be corroded with a viscous kind of dirt (perhaps due to the exudation of the cabbage-trees), that it is only in very fresh and perfect examples that this is ever practically observable. When, however, it is to be traced, I think perhaps that it is more conspicuous in the *N. horridus* than in the allied forms,—occasional individuals having (so far as their elytra are concerned) quite a tessellated appearance.

140. *Nesiotes gracilis*, n. sp.

N. præcedenti similis, sed multo minor et omnino angustior, gracilior, prothorace conspicue angustiore, elytris antice gradatim magis attenuatis (quare omnino magis elongato-ovatis, sc. ultra medium magis rotundato-ampliatis), femoribus tibiisque multo minus pubescentibus, funiculique artº 2º sensim minus conspicue elongato.

Long. corp. lin. $1\frac{2}{3}$ –2.

Habitat in locis similibus ac præcedens, inter *Compositas* vulgaris.

Like the last one, this is a species of the highest elevations, being attached essentially to the cabbage-trees. About Diana's Peak and Actæon I have taken it in profusion, as well as along Stitch's Ridge, and in one instance even so low down as Vine-Tree Gut,—a small ravine which issues out of Halley's Mount.

Although in a general sense abundantly different, an occasional large example of the *N. gracilis* and a small one of the *horridus* are not quite easy at first sight to separate; nevertheless I am satisfied that the two species (which occur in the same localities, and are exposed to precisely the same influences) are truly and properly distinct. The *N. gracilis* (which is as variable in size as its ally) may be defined to be (on the average) both much smaller and considerably slenderer than the *horridus*,—its prothorax being conspicuously narrower, and its elytra gradually much more drawn-in, or attenuated, anteriorly. This form of the elytra causes them to be proportionately more elongate-ovate in outline (or more rounded

outwards beyond the middle). Its femora and tibiæ, also, are very much less pubescent; and its second funiculus-joint is not quite so decidedly lengthened.

141. *Nesiotes minor*, n. sp.

N. præcedenti affinis, sed vix ejus varietas depauperata. Differt staturâ minore, prothorace conspicue minore et antice profundius constricto; elytris minus nitidis, densius sed minutius punctato-striatis, interstitiis angustioribus et sensim convexioribus; antennis subgracilioribus, nigricantibus, scapo calvo, funiculi art^o 2^{do} distincte longiore quam tertio.

Long. corp. lin. circa $1\frac{1}{2}$.

Habitat inter ramulos humi jacentes, in regionibus valde elevatis, rarissimus.

Whether the two examples from which the above diagnosis has been drawn out, and which were taken by myself in the vicinity of Diana's Peak on the high central ridge, represent more than an extremely depauperated state of the *N. gracilis*, I have scarcely material enough to decide; but if they may be regarded as typical of their kind, the *N. minor* may be said to be smaller than the *gracilis* (its prothorax especially being smaller, or less developed, as well as more powerfully constricted in front), and to have its elytra less shining and more rugulose—though, at the same time, more closely and *finely* punctate-striated, with the interstices narrower and more convex. Its antennæ, too, are a little slenderer and more *blackened*; and the scape (as in the *N. simplex*) seems to be *totally* bald.

142. *Nesiotes simplex*, n. sp.

N. anguste ovato-oblongus, niger, vix nitidulus, dense sculpturatus sed squamis erectis fere carens (setulis solum brevissimis demissis cinereis parce irroratus); rostro longiusculo, lineari, minute punctulato; oculis magnis, prominentibus; prothorace antice constricto, minute, leviter, dense, et confuse punctato; elytris subparallelis, punctato- aut crenulato-striatis, interstitiis rugulosis; antennis tarsisque ferrugineis; femoribus tibiisque fere calvis; scapo calvo; funiculi art^o 2^{do} vix longiore quam tertio.

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

Habitat regiones editiores; in truncis *Dicksoniæ arborescentis*, l'Hér., antiquis emortuis marcidis parcissime deprehensus.

Obs.—*N. gracili* affinis, sed minor et minutius pubescens (setulis erectis fere carens), elytris magis parallelis (sc. antice

minus attenuatis et ultra medium vix ampliatis); rostro sensim longiore et, una cum prothorace, multo minutius leviusque punctato; elytris minus nitidis, magis rugulosis, et minutius punctato-striatis; scapo omnino calvo; funiculi (minus gracilis) art^o 2^{do} vix longiore quam tertio.

I have seen but two examples of this small and obscure *Nesiotes*, which were taken by myself from the interior of the fibrous stem of a decayed tree fern (near the summit of Actæon) on one of the highest points of the central ridge. If it is a normal representative of its kind, the species is very much smaller than the *gracilis*; and it seems to want the *erect* squamiform bristles which are more or less present in that species,—it being merely clothed with a comparatively minute cinereous pubescence. Its elytra are much more oblong, or parallel, than in the *gracilis* (being less attenuated in front, and less rounded behind the middle); and they are also less shining, more rugulose, and very much less coarsely punctate-striate. Its rostrum is a trifle longer, and, together with the prothorax, much more finely and minutely punctured; its scape is altogether bald; and its funiculus is a little less slender, and has the second joint but *very* little longer than the third one.

143. *Nesiotes asperatus*.

N. anguste ovato-oblongus, niger aut piceo-niger, vel opacus vel subopacus, tuberculato-asperatus squamisque crassis suberectis fulvo-cinereis plus minus dense vestitus; rostro lineari, dense et rugose punctato; oculis magnis, prominentibus; prothorace ovali, antice profunde constricto, (subter squamis) longitudinaliter tuberculato-asperatis; antennis tarsisque piceo-ferrugineis; scapo fere calvo; funiculi art^o 2^{do} paululum longiore quam tertio.

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

Nesiotes asperatus, *Woll., Ann. Nat. Hist.* iv. 413 (1869).

—, *Melliss, St. Hel.* 154 (1875).

Habitat in intermediis insulæ, vulgaris; in locos valde elevatos multo rarius ascendens.

Obs.—Species sculpturâ inconstans; corpore interdum omnino opaco, sed interdum fere nitidiusculo; elytris interdum rugose sed interdum multo levius granulatis.

Of all the members of the present genus which have hitherto been brought to light, this is the most abundant; and it is also, with the exception perhaps of the *N. ascendens*, the smallest of them, and

likewise the most variable. Its variability, however, does not consist so much in stature as in the exact sculpture of its elytra,—which, when denuded of their setæ and mud-like deposit, will be seen to be sometimes perfectly opaque, and at others appreciably shining (though never so much so as in the *N. ascendens*); whilst in certain examples the granuliform tubercles of the elytra (which are always more or less traceable in partial longitudinal rows) are thickly-set and coarse, and in others wider apart and comparatively indistinct. In no instance, however, do they merge into absolute *punctures*, such as are conspicuous in the nearly-allied *N. ascendens*. The specimens from Flagstaff Hill are peculiarly opaque; and I might have been inclined to treat them as distinct from the ordinary form (which must be regarded as the type) did not intermediate links occur in many widely-separated localities. The species, however, may be defined, generally, as rather narrow and elongate (in proportion to its small size), and as densely beset with brown mud-like scales which are intermingled with erect squamiform fulvo-cinereous setæ; and when the clothing has been removed, the prothorax will be seen to be thickly studded with robust granuliform tubercles, whilst the elytra have the same kind of tubercles longitudinally disposed (except towards the shoulders, where they are often denser)—sometimes in double rows, and at others in anteriorly-confluent spaces.

The *N. asperatus* is more particularly a species of intermediate altitudes,—swarming at Plantation, Oakbank, Thompson's Wood, West Lodge, Vine-Tree Gut, &c.,—but seldom ascending into the loftier districts; though I met with a very few examples of it on the central ridge, both towards Actæon and High Peak. I cannot help suspecting, therefore, that it may have been originally attached to the gumwoods, and perhaps also to the arborescent asters and even to the scrubwood; but I have no evidence that it is in any way connected with the cabbage-trees. In the *Aster*-grove beyond West Lodge, overlooking Lufkins, it swarms; and, as just mentioned, it is equally common beneath the old gumwoods at Thompson's Wood; and since it is highly probable that the Plantation and Oakbank district was formerly a district of gumwoods, its excessive abundance in that particular region may possibly be accounted for. The examples from Flagstaff, which differ a little from most of the others, may perhaps represent a race which was dependent once upon the scrubwood.

144. *Nesiotes ascendens*, n. sp.

N. asperato valde affinis, sed elytris paululum minus elongatis ac magis ovatis, subter squamis nitidioribus (nec alutaceo-opacis), necnon distincte, regulariter, et parum grosse striato-punctatis (nec seriatim tuberculatis).

Long. corp. lin. circa $1\frac{1}{4}$.

Habitat in locis valde elevatis; inter ramulos antiquos fractos *Compositarum* arborescentium, rarissimus.

At first sight the present *Nesiotes* is barely distinguishable from the *asperatus*; and yet I do not believe that it can in reality be referred to that species. Moreover its habits appear to be different; for while the *N. asperatus* is strictly a native of intermediate, or at all events not very lofty, altitudes, the *ascendens* occurs on the highest portions of the central ridge,—the whole of my examples having been obtained below Actæon, along what is called the “Cabbage-Tree road.” I cannot help thinking, therefore, that they represent a species which is truly distinct from, although closely allied to, the *asperatus*, and one moreover which is attached to the cabbage-trees, rather than to the asters and gumwoods.

The *N. ascendens* differs from the *asperatus* in its elytra being a trifle less elongated and just appreciably more *ovate*, as well as (when denuded of their setæ and mud-like scales) more shining (their surface being in no respect *alutaceous* or opaque), and rather coarsely, regularly, and conspicuously *striate-punctate*,—instead of being studded with small, longitudinally disposed tubercles. Owing, however, to the dense manner in which the surface is coated, this peculiarity of the elytral sculpture is not easy to be observed.

Fam. 28. TRACHYPHLÆIDÆ.

Genus 63. TRACHYPHLÆOSOMA.*

Wollaston, *Ann. Nat. Hist.* iv. 414 (1869).

Corpus parvum, breviter ovale, apterum, dense lutoso-squamosum, et parce setosum; *rostro* brevissimo, triangulari aut potius conico, ad apicem recte truncato; *oculis* minutis, demissis; *scrobe* profundâ, versus oculum ductâ, dein subito mox ante oculum angulatim deflexâ; *scutello* obsoleto; *elytris* ovalibus basi truncatis; *metasterno* brevissimo; *abdominis* segm^{tis} 1^{mo} et 2^{do} lineâ profundâ argute divisâ. *Antennæ* fere ad apicem rostri insertæ; *scapo*

robusto, curvato, intus parce setoso; *funiculo* 7-articulato, compacto; *capitulo* magno, abrupto, ovali. *Pedes* longiusculi, crassiusculi, *antici* contigui, *intermedii* paululum separati, *postici* parum distantes; *tarsis* crassis, art° 3^{tio} latiusculo et distincte bilobo, *unguiculis* sat magnis.

Obs.—Genus *Trachyphlæo* simillimum, sed differt corpore minore; rostro multo brevior et magis conico, ad apicem recte truncato (nec triangulariter exciso); oculis minutissimis; scrobe ante oculos subito angulatim deflexâ; antennis magis versus apicem rostri insertis, tarsorum art° 3^{tio} paulum minus late bilobo, unguiculisque submajoribus.

It is not altogether impossible that the small and obscure Curculionid for which, in 1869, I proposed the present genus, may have to be acknowledged eventually as a minute *Trachyphlæus*; nevertheless, since the genus has already been established, and it certainly possesses a few structural peculiarities which I do not perceive in *Trachyphlæus* proper, I can see no particular advantage in suppressing *Trachyphlæosoma* as, at any rate, a subsidiary group. The only member of it which has hitherto been brought to light, and which abounds in the intermediate districts of St. Helena, is not only smaller than any of the true *Trachyphlæi* with which I am acquainted, but it has its rostrum much shorter and more *regularly conical*, straightly truncated at the tip (instead of being triangularly scooped out), and with the eyes considerably more minute, and the scrobs (instead of being abbreviated, straight, and auriform) suddenly deflected, just before reaching the eye, so as to shape out a sharply-defined right angle. Its antennæ, also, are implanted rather nearer to the apex of the rostrum, the third joint of its feet is not quite so broadly bilobed; and its claws (in proportion to the comparatively minute size of the insect) are somewhat more largely developed.

* 145. *Trachyphlæosoma setosum*.

T. breviter ovale, squamis brunneis quasi lutoso-vestitum, sed subter squamis plus minus brunneo-piceum; rostro brevi, conico, in medio indistincte canaliculato, et una cum prothorace plus minus parce at minute setoso, hinc subter squamis grossissime punctato (punctis maximis, inter se subconfluentibus); elytris setis suberectis cinereis longitudinaliter parce obsitis, subter squamis valde profunde striato-punctatis, punctis magnis et argute determinatis; antennis pedibusque læte rufo-ferrugineis.

Long. corp. lin. 1-1 $\frac{1}{4}$.

Trachyphlæosoma setosum, Woll., *Ann. Nat. Hist.* iv. 415 (1869).

— —, *Melliss, St. Hel.* 154 (1875).

Habitat in intermediis editoribusque, præsertim illis ; vulgaris.

The small size and shortly-oval outline of this insignificant little brown Trachyphlæid, which is more or less densely coated with mud-like scales, and which is sparingly studded with suberect cinereous setæ (which on the elytra are somewhat longitudinally disposed), will sufficiently distinguish it. I believe it to be a truly aboriginal form ; and yet it is one of the most widely distributed over the island of all the Coleoptera which have hitherto been detected.

It is more in the intermediate districts than the higher ones that the *T. setosum* abounds. Thus, about Plantation and Oakbank it swarms,—particularly beneath cut grass, and crawling sluggishly on the hot dry ground amongst loose stones and earth (to the colour of which it so completely assimilates that it is very easily overlooked). I have taken it also in profusion at West Lodge and in Thompson's Wood, as also at Rock Rose—and more sparingly (at a higher altitude) at Cason's, on High Peak, and even on the loftier portion of the central ridge.

Fam. 29. OTIORHYNCHIDÆ.

Genus 64. SCIOBIUS.

Schönherr, *Curc. Disp. Meth.* 197 (1826).

146. *Sciobius subnodosus*.

S. ovatus, piceus, squamulisque cinereis minutis depressis (interdum obscure etiam submetallico-tinctis) plus minus nebuloso-vestitus, setulisque brevibus suberectis cinereis in elytris longitudinaliter obsitus ; rostro breviter subcylindrico, apice triangulariter exciso, in medio argute carinulato ; scrobe profundâ, ante oculos (valde prominentes) evanescente ; prothorace (subter squamis) confuse subtuberculato-ruguloso, in disco leviter carinulato ; elytris (prothorace latioribus) ovalibus, late punctato-sulcatis, interstitiis convexis et postice plus minus evidenter subnoduloso-elevatis ; antennis pedibusque elongatis, illis gracilibus, funiculi (7-articulati, laxi) art^o 2^{do} elongato.

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

Sciobius subnodosus, Woll., *Ann. Nat. Hist.* iv. 416 (1869).

— —, *Melliss, St. Hel.* 155, pl. 23. f. 4 (1875).

Habitat in intermediis editioribusque insulæ, ad plantas varias, passim.

Whether this rather large and light-brown Curculionid is truly indigenous at St. Helena, I can scarcely venture to pronounce. Certain it is that it occurs now almost everywhere, and that it is extremely destructive to vegetation; but since it belongs to a genus which is essentially South-African, it is far from unlikely that it may have been introduced originally from the Cape of Good Hope (from whence I have examined specimens which were captured lately by Mr. Gray), and have since completely established itself. Still there is no reason why it should not have been aboriginally St.-Helenian; though I am more inclined to suspect that it is in reality a naturalized species. Mr. Melliss mentions that it is more particularly common in gardens and cultivated grounds,—lying concealed by day, but feeding voraciously at night on the young shoots of plants, which it completely destroys. I believe that the whole of these Otiorhynchideous types are nocturnal in their habits; but my own experience of the *S. subnodosus* would imply its occurrence indiscriminately in nearly all parts of the island, at intermediate and lofty altitudes. I met with it commonly at Plantation and West Lodge, as well as at High Peak, Cason's, in the vicinity of Actæon and Diana's Peak, in Vine-tree Gut, between Peak Dale and Lufkins, in Thompson's Wood, on the slopes of Flagstaff Hill, and, indeed, almost everywhere; and it has been taken by Mr. P. Whitehead about Woodcot.

There is no other Curculionid, which concerns us here, with which the *S. subnodosus* could be confounded,—its rather large size and light-brown surface, which is densely clothed with minute depressed subcinereous scales (which in highly coloured examples have often a very faint metallic tinge), the elytra being additionally studded with short longitudinally-disposed cinereous suberect setæ, as well as furnished posteriorly with a few (sometimes indistinct) slightly raised humps or nodules, formed by the breaking-up of the somewhat elevated interstitial spaces, being more than sufficient to characterize it. Its paler scales are sometimes condensed into an obscure line on either side of the prothorax; and there are occasional traces of a few scattered irregular darker specks behind the middle of the elytra, which in very perfect and highly coloured examples take almost the form of an obsolete ill-defined fascia.

Genus 65. OTIORHYNCHUS.

Germar, *Ins. Spec.* 342 (1824).147. *Otiorhynchus sulcatus*.

O. magnus, ovato-oblongus, opacus, niger, pilisque demissis fulvo-cinereis (in elytris in fasciculos aut maculas parvas collectis) parce vestitus; rostro antice dilatato et triangulariter exciso, in medio late profundeque canaliculato; prothorace parvo, ovali-cylindrico, grossissime, dense, et regulariter tuberculato; elytris grosse et late sulcatis (sulcis in fundo tuberculis remotis obsitis), interstitiis convexis et rugose transversim subimbricato-tuberculatis; antennis pedibusque elongatis, subconcoloribus, femoribus subtus denticulo armatis.

Long. corp. lin. $4\frac{1}{2}$ –5.Curculio sulcatus, *Fab., Mant. Ins.* 122 (1787).Otiorhynchus sulcatus, *Stierl., Rev. der Otiorh.* 225 (1861).— —, *Woll., Ann. Nat. Hist.* iv. 416 (1869).— —, *Crotch, in Godm. Azor.* 81 (1870).— —, *Melliss, St. Hel.* 155 (1875).

Habitat in intermediis editioribusque, passim; ex Europâ certe introductus.

This common European *Otiorhynchus* (so well distinguished amongst the St.-Helena Curculionids by its large size, and its black, opake, coarsely sculptured surface), although nowhere abundant, is widely spread over the intermediate and lofty districts of the island,—where doubtless it must have been accidentally introduced, originally, from Europe. It has become naturalized in a similar manner in the Azorean archipelago; but it has not yet been detected in any of the more southern groups. I have met with it at Plantation and West Lodge, as well as at High Peak, Cason's, and even on the most elevated portion of the ridge towards Diana's Peak and Actæon.

Fam. 30. BRACHYDERIDÆ.

Genus 66. SITONA.

Germar, *Ins. Spec.* i. 414 (1824).148. *Sitona lineatus*.

S. longiusculus, parallelus, squamulis subfuscis dense irroratus et lineis paululum magis cinereis (sc. 3 in capite et prothorace,

aliisque in interstitiis elytrorum alternis positis), interdum inconspicuis, ornatis; capite in medio (præsertim antice) argute canaliculato, prothoraceque creberrime punctulatis, hâc ad latera pone medium leviter rotundato; elytris punctato-striatis; antennis versus basin, tibiis, tarsisque piceo-ferrugineis.

Long. corp. lin. 2.

Curculio lineatus, Linn., *Fna Suec.* 183 (1761).

Sitona lineatus, Schön., *Gen. et Spec. Curc.* ii. 109 (1834).

———, Woll., *Col. Atl.* 336 (1865).

———, Crotch, in *Godm. Azor.* 81 (1870).

Habitat in cultis intermediis, rarissimus; ad Plantation exemplar unicum (emortuum) collegit Dom. Gray.

The only evidence that I possess for the admission of this common and widely-spread European *Sitona* into the St.-Helena catalogue is embodied in a single example which was found (dead) by Mr. Gray in the grounds at Plantation; and, inasmuch as I did not myself meet with the species during our six months' residence in the island, and, indeed, in that actual part of it, it must, if truly naturalized (which perhaps, under the circumstances, we can scarcely doubt), be of extreme rarity. At any rate, its presence in the fauna is almost without significance,—seeing that the utmost that can be said of it is, that it may have been imported accidentally from England, at some not very remote period, along with consignments of plants. In the Azorean, Madeiran, and Canarian archipelagos it has not only completely established itself, but has become abundant.

Fam. 31. ANTHRIBIDÆ.

(Subfam. 1. ARÆOCERIDES.)

(*Linea transversa prothoracica basilaris, marginem basalem elevatum efficiens; utrinque per marginem lateralem usque ad medium ducta.*)

Genus 67. ARÆOCERUS.

Schönherr, *Curc. Disp. Meth.* 40 [script. *Aræcerus*] (1826).

149. *Aræocerus fasciculatus*.

A. breviter ovalis, crassus, brunneo-piceus, pube brevi demissâ cinereâ et griseâ nebulosus necnon in elytris plus minus (in interstitiis alternis) longitudinaliter tessellatus; capite prothoraceque (subter pube) opacis, densissime et rugose punctatis, oculis maxi-

mis, prominentibus, hōc subconico, postice lato et trisinuato, costâ transversâ in marginem basalem coëunte necnon utrinque marginem lateralem (usque ad medium lateris ductum) efficiente, angulis posticis argute determinatis; elytris apice truncato-rotundatis, (subter pube) subopacis, densissime et rugose granulatis ac leviter crenulato-striatis; antennis pedibusque elongatis, infusate testaceis, illis gracilibus, clavâ (elongatâ, laxâ, 3-articulatâ) obscuriore; tarsorum art^o 1^{mo} longissimo, anticis in ♂ paulum dilatatis.

Variat interdum (præcipue in sexu fœmineo) elytris fere concoloribus (sc. interstitiis alternis vix tessellatis).

Long. corp. lin. 2–2½.

Curculio fasciculatus, *De Geer*, *Ins.* v. 276, t. 16. f. 2 (1775).

Anthribus coffeæ, *Fab.*, *Syst. Eleu.* ii. 411 (1801).

Aræocerus fasciculatus, *Woll.*, *Ann. Nat. Hist.* iv. (1869).

— —, *Melliss*, *St. Hel.* 155 (1875).

Habitat in domibus repositoriisque, rarior; ad Jamestown ex alienis invectus.

I did not myself meet with this introduced insect at St. Helena; but a specimen was found by Mrs. Wollaston crawling on the outer wall of a house in Jamestown, and two more had been obtained previously by Mr. Melliss. Of course it has no connexion whatever with the real fauna of the island; though its liability to transmission along with various articles of commerce (particularly seeds and berries) amongst most of the warmer countries of the civilized world has resulted in its naturalization at St. Helena, as it has done in so many other places; so that we cannot omit it from the present catalogue.

As compared with the truly indigenous Anthribids of St. Helena, which play so significant a part in the Coleopterous fauna as to be second only in importance to the Cossonidæ, the present insect belongs to a totally different type,—in which the first joint of the feet is greatly elongated, and the transverse prothoracic keel is removed to the *extreme* base of the pronotum (so as to form a mere elevated marginal line), and is then produced at right angles to about midway along the lateral edge. But, apart from these characters, which are more strictly generic ones, the *A. fasciculatus* may be known by its compact thickened body and short-oval outline, and by its brownish-piceous surface being clouded with an abbreviated decumbent cinereous and griseous pubescence, the alternate elytral interstices having (additionally) indications of being longitudinally tessellated,—which in some examples is extremely conspi-

cuous, but in others (particularly the females) very indistinct. Its eyes are exceedingly large and prominent; its antennæ (which are remarkably slender) are of a dull testaceous hue, but have their lax and elongate 3-jointed club darker; and its surface, when the pubescence is removed, will be seen to be opaque and closely and coarsely sculptured. Its male sex has the two front feet a trifle dilated.

(Subfam. 2. NOTIOXENIDES.)

(*Linea transversa prothoracica conspicue ante basin sita; utrinque plus minus arcuata sed rarius per marginem lateralem etiam paululum ducta.*)

Genus 68. NOTIOXENUS.

Wollaston, *Journ. of Ent.* i. 212 (1861).

Corpus vel oblongum vel ovato-oblongum, aut pubescenti-variegatum aut (rarius) subglabrum, plus minus pictum; rostro brevi, triangulari, apice rotundato-truncato; *oculis* rotundatis, integris; *prothorace* ante basin vel lineâ impressâ vel (sæpius) carinulâ elevatâ (utrinque plus minus arcuatâ, sed rarius per marginem lateralem etiam paululum ductâ) transversim instructo; *scutello* vel obsoleto, vel minutissimo, vel sat distincto; *elytris* postice subabbreviatis, pygidium vix tegentibus. *Antennæ* 11-articulatæ, graciles, rectæ, laxæ, in paginâ superiore rostri (mox intra oculos in foveâ) insertæ; art^o 1^{mo} curvato, sequentibus paululum crassiore, 2^{do} usque ad 8^{um} elongate obconicis, reliquis clavam elongatam laxam 3-articulatam efficientibus. *Mandibulæ* triangulares, crassæ, validæ, corneæ, ad apicem obtuse bidentatæ, dein intus emarginatæ. *Maxillæ* bilobæ; *lobo externo* angusto, arcuato, glabro sed ad apicem ipsum pubescente; *interno* paululum brevior, intus dense piloso. *Palpi maxillares* 4-articulati, art^o 1^{mo} parvo, 2^{do} majore crassiore, 3^{tio} huic paulo brevior ac paulo angustior, breviter subcylindrico, ult^{mo} elongato, sensim graciliore, fusiformi; *labiales* 3-articulati, art^{is} 1^{mo} et 2^{do} subæqualibus, ult^{mo} paulo longior, graciliore, fusiformi. *Mentum* corneum, antice curvato-emarginatum, angulis anticis rotundatis. *Ligula* brevis, basi cornea, antice in medio cordata et longe pilosa. *Pedes* longiusculi; *tibiis* ad apicem muticis; *tarsis* pseudotetrameris, art^o 1^{mo} in posticis multo longior quam secundo, 3^{tio} late bilobo, 4^{to} minutissimo recepto, ult^{mo} clavato *unguiculis* appendiculatis munito.

Next to the Cossonids, there can be no question that the *Anthribidæ* play the most important part in the Coleopterous fauna of St. Helena; and although I have admitted the whole of them, with

the exception of the *Acarodes gutta*, into the two genera *Notioxenus* and *Homœodera* (characterized, respectively, by the presence and absence of a basal prothoracic line), it is not unlikely that future researches will add so many species to the number that it may become desirable eventually to split them up, like the *Cossonidæ*, into several distinct groups. This indeed might be done even now, were it not that the widely-differing forms which each genus has been made to embrace are in reality more suggestive, to at any rate my mind, of intermediate links yet to be detected than of an independent series of isolated generic types. This, indeed, I strongly insisted upon even in 1869, when commenting on the few *Notioxeni* which had then been met with,—adding that “the great specific dissimilarity of the four representatives enumerated below induces me to suspect (as I did in 1861, when only two of them had been brought to light) that there are many *Notioxeni*, of a more or less intermediate *facies*, yet to be discovered, and for which therefore we may confidently look.” Two years later an additional *Notioxenus* was contributed by Mr. Melliss, and likewise a new *Homœodera*; but how far my original conjecture has been verified may be gathered from the fact that, during our late sojourn in the island, the 5 *Notioxeni* were increased to 12, and the 4 *Homœoderæ* to 13; and I am satisfied that we have not yet by any means exhausted their numbers.

The *Notioxeni* are, on the *average*, larger insects than the *Homœoderas*, and also a little more variegated in hue; but their main distinctive feature consists in their prothoracic line being in all instances conspicuously developed, and removed from the extreme base by a more or less appreciable interval. In most cases it takes the form of a sinuated, or arcuate, transverse keel, though in the *N. Bewickii* it appears to be impressed rather than raised; and although it is a little curved anteriorly at either extremity, it is never produced at right angles along the lateral edge (as in the *Aræocerides*) so as to constitute a thread-like margin to the posterior half of the pronotum. Indeed in the majority of the species it is but very slightly curved forwards at all; but in two of them (the *N. Janischi* and *Dalei*) there is a somewhat greater tendency to this *lateral prolongation* of the basal keel.

Before I had become acquainted with the *Notioxeni* in a living state, I felt it just possible that perhaps some of them might prove to be saltatorial (remembering that several of the smaller Anthri-

bideous types, as for instance *Xenorches* in Madeira and the European *Choragus*, possess the power of jumping); but I am now enabled to state that neither *Notioxenus* nor *Homœodera* show any such tendency.

The 12 *Notioxeni* which have hitherto been brought to light may be thus tabulated:—

- A. *elytra distincte et regulariter striata, striis impunctatis.*
 - a. *prothoracis linea basalis impressa, canaliculum efficiens.*
Bewickii.
 - aa. *prothoracis linea basalis elevata, carinulam efficiens.*
subfasciatus.
 - AA. *elytra striâ suturali impunctatâ solum impressa.*
alutaceus.
 - AAA. *elytra seriatim punctata, sed punctis postice evanescentibus.*
dimidiatus.
 - AAAA. *elytra plus minus regulariter punctato-striata.*
 - β. *prothoracis linea basalis ad utrumque latus antrorsum distincte curvata.*
Janischi,
Dalei.
 - ββ. *prothoracis linea basalis ad utrumque latus antrorsum nec aut vix curvata.*
 - γ. *corpus ænescens.*
Grayii,
æneus.
 - γγ. *corpus nullo modo ænescens (nec etiam submetallicum).*
 - δ. *ovale, nitidum, sæpius nigro- et rufo-pictum.*
 - ε. *elytrorum striis laxè et grosse crenulatis.*
congener,
rufopictus.
 - εε. *elytrorum striis crebre et minute crenulatis.*
rotundatus.
 - δδ. *angusto-elongatum, subopacum, ferrugineum, sed dense cinereo-pubescentius.*
ferrugineus.

150. *Notioxenus Bewickii*. (Fig. 8.)

N. fusco-niger, subopacus, impunctatus sed minutissime obsoleteque subrugulosus, pube brevissimâ demissâ griseâ vestitus necnon hinc inde cinereo-pictus; capite minute et dense punctulato, in fronte carinulâ brevi lævi instructo; oculis magnis; prothorace lineâ subbasali impressâ utrinque regulariter curvatâ plagisque 3 longitudinalibus (plus minus fractis et interdum omnino obsolete) cinereo-squamosis picto; scutello minutissimo, punctiformi; elytris argute et regulariter impunctato-striatis, maculis minutis plurimis cinereo-squamosis irroratis, interdum ad basin et humeros obsolete rufescentioribus; antennis tarsisque piceo-testaceis, illis gracilibus; femoribus tibiisque piceis, his ad basin rufescentibus.

Long. corp. lin. $3\frac{1}{2}$ –4.

Notioxenus Bewickii, *Woll., l. c.* 213, pl. xiv. f. 1 (1861).

———, *Id., Ann. Nat. Hist.* v. 20 (1870).

———, *Melliss, St. Hel.* 156 (1875).

Habitat in herbidis elevatis, inter plantas *Diplazium nigro-paleaceum*, Kunze, præcipue degens.

The large size and griseous-black, densely-clothed surface of this *Notioxenus*, which is obscurely ornamented (especially on the elytra) with a few minute and irregular patches of cinereous scales (the two postmedian ones of which are the most conspicuous), added to its prothoracic line being *impressed** and its striæ (as in the *N. subfasciatus*) perfectly simple, will sufficiently distinguish it. With the exception of the head, which is minutely punctulated, it will be seen (when the pubescence has been removed) to be impunctate, but somewhat alutaceous and subopaque; in highly-coloured specimens there is often a slight rufescent tinge about the base and shoulders of the elytra; its scutellum is most minute and punctiform; and its eyes, although not particularly prominent, are extremely large.

Up to the time of our visit to the island I had seen but two examples of this *Notioxenus*,—one of which was taken in 1860 by the late Mr. Bewicke, and the other more recently by Mr. Melliss. If searched for, however, in the proper localities, it seems to me to be one of the most abundant of the aboriginal Coleoptera of St. Helena,—the great central heights being essentially its range. Unless I am much mistaken, it is attached to the *Diplazium nigropaleaceum*, Kunze (next to the *Dicksonia arborescens* the largest of the native ferns); at any rate it was nearly always out of the thick and partially-blackened masses of that plant that my examples were beaten. In the neighbourhood of Actæon and Diana's Peak, as well as along the Cabbage-Tree Road and on Stitch's Ridge, I have seldom shaken the *Diplazium* without obtaining it; and I also met with it under precisely similar circumstances at Cason's, and even so low down as Vine-Tree Gut—which issues out of Halley's Mount. It was found also by Mr. Gray during the first few weeks of our sojourn in the island.

151. *Notioxenus subfasciatus*, n. sp.

N. ferrugineus, subopacus, fere impunctatus sed minutissime obso-

* Owing to the posterior edge of this impressed line, in the *N. Bewickii*, being a trifle elevated, the whole line seems occasionally to be, after all, more of a keel than a channel. But this, I think, is more apparent than real.

leteque subrugulosus, pube demissâ cinereo-fulvâ aut etiam -aureâ (in elytris in fasciis duabus valde obliquis obsoletissimis, interdum ægre perspicuis) vestitus; capite minute punctulato; oculis magnis, prominentibus; prothorace sat magno, lineâ subbasali elevatâ utrinque regulariter curvatâ; scutello minutissimo, punctiformi; elytris basi distincte recto-marginatis (margine minute fimbriato), argute et regulariter impunctato-striatis, striâ suturali valde abbreviatâ subscutellari; antennis pedibusque rufo-ferrugineis; unguiculorum appendiculis internis nec laciniatis sed angustis acutissimis liberis, quasi unguiculos internos minores efformantibus.

Long. corp. lin. 2-3.

Habitat in locis valde elevatis, inter herbas, rarissimus.

This is one of the rarest of the *Notioxeni*, and confined (so far as my own experience is concerned) to the highest portions of the great central ridge,—the whole of my examples (only 18, however, in number) having been taken either on the flanks or summit of Diana's Peak and Actæon. It was first detected by Mr. Gray, and subsequently met with by Colonel Warren, in the same district. It was by general brushing that my specimens were obtained; so that I am unable to say to what particular plant the insect is attached; but, judging from the analogy of the *N. Bewickii*, I should be inclined to suspect that it is the ferns, rather than the cabbage-trees, with which it is connected.

Although extremely variable in stature (for some of the larger examples more than double the smaller ones in actual bulk), the *N. subfasciatus* is nevertheless, on the average, one of the largest members of the group; and, although not so large as the *N. Bewickii*, it agrees with that species in having its elytral striæ (the first one of which, however, is abbreviated and merely subscutellary) perfectly simple. But its prothorax and the basal joint of its club are relatively a little more developed than in the *Bewickii*, its antennæ are less slender, its eyes are more prominent, and its elytra are coarsely and straightly margined at their base. Apart, however, from this, it is at once distinguished by its *ferruginous* surface, which is covered with a longer and somewhat golden decumbent pubescence, which is so disposed on the elytra as to shape out (in highly coloured examples) two *very oblique* and obscure fasciæ,—which are never conspicuous, and sometimes barely traceable. Its antennæ and legs are rufo-ferruginous; its antebasal prothoracic line is sharply elevated; and the appendages of its claws are less broad and *lacinia*-like than in

the *N. Bewickii*,—being in fact narrow, acute, and corneous, forming in every respect an independent but smaller pair of inner ungues.

152. *Notioxenus alutaceus*.

N. æneo-piceus (interdum *æneo-niger*) et obsoletissime subviridi tinctus, sæpius subopacus sed sæpe subnitidulus, fere impunctatus sed sensim alutaceus, pube demissâ cinereo-fulvescente (in elytris plagas irregulares longitudinales plerumque efformante) vestitus; oculis magnis, prominentibus; prothorace lineâ subbasali elevatâ utrinque paululum curvatâ; scutello minuto, punctiformi; elytris basi distincte recto-marginatis (margine minute fimbriato), striis (suturali profundâ impunctatâ, antice evanescente, exceptâ) obsoletis; antennis nigrescentibus, ad basin, tibiis in toto tarsisque ad basin piceo-testaceis; femoribus tarsisque versus apicem picescentioribus.

Variat elytris concoloribus, nullo modo longitudinaliter fasciato-tessellatis sed evidentius subviridi tinctis, pedibus nigrescentioribus.

Long. corp. lin. 1–vix 2.

Notioxenus alutaceus, Woll., *Ann. Nat. Hist.* v. 22 (1870).

— —, Melliss, *St. Hel.* 157 (1875).

Habitat regiones editiores, foliis *Compositarum* arborescentium gaudens; vulgatissimus.

The unique example from which I had to enunciate this *Notioxenus* in 1869, and which was taken by Mr. Melliss, chanced to belong to the variety, or state, in which the fulvous pubescence does not appear in any degree to *tessellate* the elytra; but now that I have had an opportunity of observing thousands of them, I am enabled to correct the diagnosis so as to lay proper stress on that particular point. In by far the majority of the specimens the elytra are very conspicuously dappled or subfasciated; but when they become at all worn, and abraded, this character is less conspicuous. Although, like the rest of the species, variable in stature, the *N. alutaceus* is one of the smaller members of the group; and its surface has usually a slight ænescent tinge, mingled *often* with a faint shade of metallic green. It is but obscurely shining, indeed more frequently sub-opaque, almost (or even entirely) free from punctures, but somewhat alutaceous all over; and (which is its main distinctive feature) its striæ are completely obsolete, with the exception of a deep impunctate sutural one (on each elytron) which is suddenly abbreviated anteriorly. Its antennæ are blackish, except the first and second

joints—which, like the tibiæ and the base of the tarsi, are either rufo- or piceo-testaceous.

Although confined to the higher districts of the island (where it ascends to the very summits of the peaks), the *N. alutaceus* is nevertheless, within its own proper range, one of the most abundant of the St.-Helena Coleoptera. Indeed I doubt if there is any one which is more universally spread over the regions occupied by the cabbage-trees,—to the foliage of which (particularly that of the *Pladaroxylon leucodendron*, Hk. f.) it seems to be attached. It was first secured, in profusion, by Mr. Gray, at Cason's, during the commencement of our visit and before I had been able to reach the central heights; but subsequently along the whole length of Stitch's Ridge, and towards Diana's Peak and Actæon, we met with it in indefinite numbers,—it being scarcely possible to beat a single cabbage-tree without obtaining specimens.

153. *Notioxenus dimidiatus*.

N. ovatus, convexus, aut piceus aut ferrugineus et plus minus evidenter subæneo tinctus, nitidus, pube grossâ demissâ vel cinereâ vel fulvescente (in elytris fasciam postmedian dentatam interruptam sæpius efformante) vestitus; capite ruguloso-punctato; oculis magnis, prominentibus; prothorace sat profunde et confuse (sed in disco antico levius parciusque) punctato, lineâ subbasali valde elevatâ utrinque sinuatâ; scutello minutissimo, punctiformi; elytris basi conjunctim arcuato-marginatis (margine minute fimbriato), antice grossissime seriatim punctatis, punctis in dimidiâ parte posticâ evanescentibus, sed striâ suturali profundâ impunctatâ antice evanescente impressis, pone medium spatio transverso necnon ad utrumque latus ante apicem altero irregulari minore nigrescentibus nitidioribus ac magis glabris; antennis gracilibus, nigrescentibus, art^{is} 1^{mo} et 2^{do} (curvatis) pedibusque plus minus piceo- aut rufo-testaceis.

Variat (rarius) colore nigro-æneo, viridi tincto, immaculato.

Long. corp. lin. 1-1 $\frac{3}{4}$.

Notioxenus dimidiatus, Woll., *Ann. Nat. Hist.* v. 22 (1870).

—, Melliss, *St. Hel.* 156 (1875).

Habitat regiones intermedias, ramulis emortuis fractis humi jacentibus præcipue adherens.

As in the case of the last species, the two examples from which I was compelled in 1869 to define this *Notioxenus* left me in ignorance of its true character of coloration; for since one of them

happened to be (what I now perceive is) the normal state, and the other the darker variety, in which the elytra are wholly immaculate, I unfortunately regarded the *latter* as the type, and treated the ornamented form (which is truly typical) as immature and aberrant. In real fact the obscurer and unspotted phasis, although clearly a mere variety of the other, is extremely scarce,—only two or three individuals being indicated out of many hundreds of the maculated one which I have examined with considerable care; and there can be no question therefore that it represents the aberration, and not the type.

When unrubbed and richly-coloured, the *N. dimidiatus* (although rather small and ovate) is one of the most lively-tinted of all the *Notioxeni*,—its more or less piceous or piceo-ferruginous hue and shining surface, which is dappled with a coarse decumbent pubescence (either cinereous or fulvescent), which is concentrated on the elytra into an ill-defined dentate postmedian fascia (bounded anteriorly by a blacker, highly-polished, more glabrous transverse space), giving it a character which is quite its own. This transverse glabrous space is also supplemented by a smaller and more irregular one, of the same blackish hue, towards either lateral edge, halfway between the middle and apex; which tends still further to variegate the surface. But the main character of the species consists in its sculpture,—the elytral punctures being enormous, closely set, and longitudinally disposed, but suddenly evanescent about the middle of each elytron, while the presence of an unpunctured sutural line, which (as in the *N. alutaceus*) is continued to the apex, but is abbreviated anteriorly, is another feature which should be noted. Its antebasal prothoracic keel (which is considerably removed from the hinder margin) is much elevated and sinuate; and its head and prothorax are distinctly but confusedly punctured, the punctures, however, on the anterior disk of the latter being both lighter and fewer.

The *N. dimidiatus* appears to be an insect of strictly intermediate altitudes; for I have never obtained a single example of it at so high an elevation as even the lowest portion of the central ridge. It is far from unlikely, therefore, that it may have belonged originally to the gumwood fauna. It is usually to be met with, in company with the *Homœodera pumilio* and *alutaceicollis*, adhering to old sticks which are lying on the ground; under which circumstances I captured it in absolute profusion at Plantation, as well as in Vine-

Tree Gut,—a small ravine, between Oakbank and Hutt's-Gate, which issues out of Halley's Mount.

154. *Notioxenus Janischi*, n. sp.

N. oblongus, niger, nitidus, pube grossâ demissâ fulvâ et albidâ nebulosus; capite prothoraceque dense, rugose, et profunde punctatis, oculis magnis et valde prominentibus, hâc triangulari aut conico, subinæquali, lineâ subbasali paulum elevatâ utrinque per partem posticam marginis lateralis curvate ductâ; scutello distincto, albedo, subtransverso; elytris basi marginatis (margine minute fimbriato), profunde punctato-striatis, distinctius albidomarmoratis (maculâ utrinque ad humeros, alterâ in disco antico, fasciâque obsoletissimâ anteapicali fractâ, sæpius præcipue discernendis); antennis nigrescentibus, art^{is} 1^{mo} et 2^{do} piceo-ferrugineis; pedibus elongatis, crassis, nigrescentibus, tarsis late dilatatis.

Long. corp. lin. 3-vix 4.

Habitat ad folia *Commidendri robusti*, DC. (anglice "Gumwood"), rarissimus; inter arbores antiquas in Thompson's Wood parce repertus.

The present species and the following one may be distinguished from the other members of the genus by (*inter alia*) their prothoracic keel being conspicuously curved forwards at either extremity for about a quarter of the distance along the lateral edge of the pronotum,—but not to so great an extent, or so much at right angles to the base, as in the subfamily *Aræocerides*. They are both of them peculiar, apparently, to the foliage of the gumwood (*Commidendron robustum*, DC.), and occur therefore at intermediate altitudes. Indeed the only spot in which I observed the *N. Janischi*, which is very much the rarer of the two, was at Thompson's Wood,—where I obtained five examples of it by beating the old trees for which that remote locality is so famous.

The *N. Janischi* is one of the largest and most conspicuous exponents of the group which have hitherto been brought to light; and it gives me much pleasure to connect its name with that of His Excellency the Governor,—from whom we received so much kindness and consideration during our six month's residence at St. Helena, and whose well-known scientific acquirements predisposed him to render us every assistance in his power towards investigating the fauna of the island.

Apart from its large size, oblong outline, and thickened legs, the *N. Janischi* may be recognized by its black and rather coarsely

punctured surface being densely clouded, or variegated, with a robust decumbent pubescence,—which is partly of a brownish-fulvescent hue, and partly white. The whiter scales preponderate on the elytra,—where (although appreciable almost everywhere) they are most decidedly condensed about the shoulders as well as into a patch on either side of the fore disk, and into a very obsolete and often fragmentary subapical fascia. Its scutellum is white, and rather evident; its limbs are a good deal blackened, except the first two joints of the antennæ, which are piceo-ferruginous; and its feet are broadly dilated.

155. *Notioxenus Dalei*, n. sp.

N. præcedenti proximus, sed minor minusque oblongus (elytris sc. paululum magis ovatis), subnitidior et (subter pube, minus fulvescente) multo minus niger,—sc. prothorace sæpius piceo elytrisque piceis sed ubique et suffuse rufulo-pictis; capite prothoraceque minus profunde punctatis, hinc sensim minore, brevior; scutello subminore et haud albido; elytris fasciâ albidâ antapicali plerumque distinctius ornatis, sed macula in disco antico carentibus; antennis pedibusque gracilioribus minusque nigrescentibus, illarum art^{is} 1^{mo} et 2^{do} sensim gracilioribus, tarsisque minus dilatatis.

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

Habitat in locis similibus ac præcedens, in Thompson's Wood et Peak Gut ad folia *Commidendri robusti*, DC., copiosius lectus.

Like the last species, this is peculiar to the gumwood, from the foliage of which I obtained it both at Thompson's Wood and in Peak Gut, as well as between Peak Dale and Lufkins. It is a most distinct and beautiful *Notioxenus*, and one which belongs to exactly the same general type as the *N. Janischi*,—its anteriorly produced prothoracic line, and *primâ facie* aspect, associating it unmistakably with that insect. Specifically, however, there can be no doubt that it is quite distinct,—its much smaller size and less oblong outline (the elytra being relatively more ovate in contour), added to its somewhat more shining and less blackened surface (the pubescence of which is whitish and cinereous, without any admixture of a brownish-fulvous hue), in conjunction with its darkened and less thickened limbs (of which the antennæ have their first and second joints appreciably slenderer), being more than sufficient to separate it. Apart from these points, however, its prothorax is proportionally

smaller and shorter, and (together with the head) less deeply punctured; its scutellum is more minute, and not whitened; its feet are less broadly expanded; and its elytra will be seen, when the pubescence has been removed, to be not only less black, but blotched or suffused all over with ill-defined rufescent patches,—a fact which gives a reddish tinge, even when the scales are thickly present, to the entire surface.

I have dedicated this interesting *Notioxenus* to my friend C. W. Dale, Esq., of Glanvilles Wootton,—whose extreme devotion to entomology, inherited from the worthiest of prototypes, is well known to all who have paid any attention to our favourite science.

156. *Notioxenus Grayii*, n. sp.

N. oblongus, angustulus, æneus, nitidus, pube demissâ aureo-fulvâ, rarius cinereâ (in elytris minus dense in fasciâ angustâ dentatâ valde obliquâ postmediâ, necnon in lineâ longitudinali dentato-curvatâ subhumerali, et in spatio parvo subapicali, omnibus interdum obsoletis) vestitus; capite prothoraceque dense et minute punctulatis, oculis valde prominentibus, hâc triangulari, lineâ subbasali elevatâ sinuatâ sed vix antrorsum curvatâ; scutello minuto, punctiformi; elytris leviter et minute substriato-punctatis; antennis nigrescentibus, art^{is} 1^{mo} et 2^{do} læte rufo-testaceis; pedibus piceo-testaceis, sæpe testaceo-piceis.

Long. corp. lin. $1\frac{1}{4}$ – $1\frac{2}{3}$.

Habitat in editioribus locisque paululum minus elevatis, passim; foliis *Compositarum* arborescentium adhærens.

It was by Mr. Gray that this very distinct *Notioxenus* was first captured,—who met with it, in tolerable profusion, at Cason's, by beating the foliage of the cabbage trees, during the early part of our sojourn at St. Helena; and I am glad to name it after its discoverer, whose indefatigable researches added so many species to the list,—some few of which it proved extremely difficult (indeed in one or two instances impossible) afterwards to obtain. The *N. Grayii* is attached essentially to the cabbage-trees, but does not seem to be very common. I subsequently procured it, likewise, at Cason's, as well as on Stitch's Ridge and towards Diana's Peak, and even so low down as Vine-Tree Gut,—a small ravine between Oakbank and Hutt's Gate.

The oblong, straightened, rather narrow, and not very convex contour of this species, added to its brassy and finely sculptured

surface, which is densely clothed with a golden-fulvous (rarely cinereous) pubescence, will readily distinguish it. In fresh and unrubbed examples its elytra have a tendency to be obscurely marked with a thread-like and extremely oblique zigzag postmedian fascia, an irregular and curved subhumeral longitudinal line, and a small space near the apex, formed by a mere disappearance of the pile; but which in the majority of the specimens are so faint as to be barely traceable.

157. *Notioxenus æneus*, n. sp.

N. ovatus, *crassiusculus*, *æneus*, *nitidus*, pube grossâ demissâ cinereâ (in prothorace prope angulos posticos et in lineis 3 obsoletis valde abbreviatis posticis, sed in elytris in fasciis duâbus obsoletis fractis, præcipue dispositâ) vestitus; capite prothoraceque minute, leviter, et confuse punctulatis, oculis valde prominentibus, hâc conico, lineâ subbasali valde elevatâ sinuatâ et utrinque paulo antrorsum curvatâ; scutello sat distincto; elytris basi marginatis (margine minute fimbriato), grosse striato-punctatis (striis punctisque postice levioribus); antennis gracilibus, piceis, art^{is} 1^{mo} et 2^{do} læte rufo-testaceis; pedibus rufo-piceis, tibiis basi clarioribus.

Long. corp. lin. 2-3.

Habitat ad truncos antiquos emortuos *Compositarum* arborescentium in regionibus valde elevatis; rarior.

The rather large, thick, and ovate body of this shining and brassy *Notioxenus*, the surface of which is a good deal variegated with coarse decumbent cinereous pubescence (which on the prothorax is principally concentrated into a patch towards the hinder angles, and into three extremely short and very obscure, *often altogether obsolete*, basal lines, whilst on the elytra, which are more or less tessellated with it all over, it is mainly apparent in two ill-defined and broken-up transverse fasciæ), will readily distinguish it. Its subbasal prothoracic keel is considerably elevated, and a little curved forwards at either extremity; its prothorax is conical; its scutellum, although small, is quite appreciable; and its elytral punctures are (at any rate anteriorly) large and coarse.

The *N. æneus* is decidedly scarce, though by constant visits to the central heights I succeeded in obtaining a tolerable number of it. It is essentially a cabbage-tree species, and one which occurs in the loftiest altitudes. It was met with both by Mrs. Wollaston and myself below Actæon and on Stitch's Ridge,—particularly crawling

on the old and dead stumps of the cabbage-trees, as well as on decayed posts which had been made out of the trunks of the same ; but we seldom, if ever, procured it from the living plants and foliage.

158. *Notioxenus congener*, n. sp.

N. angustulo-ovalis, niger, nitidissimus, in elytris calvus sed in prothorace minutissime et parcissime cinereo-pubescent ; capite dense et rugulose punctato ; oculis haud valde prominentibus ; prothorace (saltem in disco) levius parciusque punctato, lineâ subbasali elevatâ sinuatâ vix antrorsum curvatâ ; scutello obsoleto ; elytris angustule ovalibus basi truncatis, apice acutiusculis, grosse et profunde crenato-sulcatis, interstitiis paulo convexis, fere concoloribus (sc. ad apicem ipsissimum, necnon rarius obsoletissime ad basin, paululum rufescentioribus) ; antennis piceo-testaceis ; pedibus testaceo-piceis.

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

Habitat in editioribus insulæ ; una cum *N. rufopicto* degens, sed multo rarior.

Obs.—Species *N. rufopicto* affinis, sed differt corpore minore, angustiore, sensim minus ovato, prothorace vix minus profunde punctato minusque pubescente, elytris omnino calvis, sensim minus convexis, postice paululum acutioribus, et fere in toto concoloribus,—sc. ad apicem ipsum (et multo rarius versus humeros et basin) solum rufescentioribus.

Whether this is more than a permanent variety, or state, of the *N. rufopictus* I have hardly material enough to decide ; I think, however, that it is more probably a distinct but cognate species. It differs from that insect in being on the average rather smaller, and in its outline being narrower and less ovate, in its prothorax being a trifle less coarsely punctured and still more minutely and sparingly cinereo-pubescent, and in its elytra (which are rather straighter at the humeral angles, less convex, and more pointed posteriorly) being altogether bald, and very nearly black,—the extreme apex only, and occasionally a suffused blotch about the shoulders and base, being appreciably more rufescent. As in the *N. rufopictus*, its surface is highly polished, its scutellum is obsolete, and its elytra are deeply and coarsely crenate-sulcate.

My examples (about a dozen in number) of this *Notioxenus* were taken, in company with the *N. rufopictus*, on the high central ridge,—in the vicinity of Actæon and Diana's Peak.

159. *Notioxenus rufopictus*. (Fig. 9.)

N. ovalis aut *ovatus*, niger, nitidissimus, minute et parce cinereo-pubescent; capite prothoraceque dense et rugulose punctatis, oculis haud valde prominentibus, hœc lineâ subbasali elevatâ sinuatâ vix antrorsum curvatâ; scutello obsoleto; elytris convexis, grosse et profunde crenato-sulcatis, interstitiis latis, ubique maculis suffusis (præsertim pone medium et versus marginem) plus minus rufulo pictis; antennis piceo-testaceis; pedibus testaceo piceis.

Variat elytrorum maculis plus minus suffusis et confluentibus.

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

Notioxenus rufopictus, *Woll., Journ. of Ent.* i. 213, pl. 14. f. 1 (1861).

— —, *Id., Ann. Nat. Hist.* v. 21 (1870).

— —, *Melliss, St. Hel.* 156 (1875).

Habitat in regionibus valde elevatis, vulgaris; nisi fallor ad *Dicksoniam arborescentem* proprius.

The only example which I had seen of this *Notioxenus* up to the date of our arrival in the island is one which was captured by the late Mr. Bewicke on the 21st of July, 1860; and yet in the loftiest parts of the central heights there is hardly a coleopterous insect which is much more general or abundant. About Diana's Peak and Actæon, as well as on Stitch's Ridge, it is universal; and I also met with it towards the summit of High Peak. Although most of my examples were obtained by general brushing, I am inclined to suspect that the species may in reality be attached to the tree ferns; for I never procured it except in the regions occupied by those plants, and it is certain that I occasionally took it out of the interior of the dead and moist *Dicksonia*-stems. In all probability, therefore, it was from the fronds of the *D. arborescens* that my specimens were principally beaten. It was found also by Mr. Gray during the commencement of our visit.

There is certainly no member of the present genus, hitherto detected, which is more beautiful than the present one,—the numerous, but more or less suffused, bright-red spots with which its elytra are adorned (and which are occasionally subconfluent and very conspicuous), in conjunction with its otherwise black and highly polished surface, and its wide and deep *crenulated* striæ, giving it a character which it is impossible to mistake. At first sight it appears to be perfectly glabrous; but when examined beneath a high magnifying-power it will be seen to be sparingly and minutely cinereo-

pubescent; its head and prothorax are rather coarsely punctured; and its scutellum is obsolete.

160. *Notioxenus rotundatus*, n. sp.

N. rufopicto affinis, sed multo minor et globosior, vix minus nitidus, et sensim densius (tamen minutissime) cinereo-pubescent, prothorace subminore, paulo densius ac paulo minus grosse punctato, elytris fere obovatis, striis multo crebrius ac multo minutius crenulatis, antennisque sublongioribus ac subgracilioribus.

Long. corp. lin. circa 1.

Habitat in herbidis valde elevatis, rarissimus; hactenus bis captus.

The only two examples of this most interesting little *Notioxenus* which I have yet seen are from the high central ridge, in the immediate vicinity of Actæon and Diana's Peak,—the first of them having been captured by Mr. Gray, and the other by myself. It is evidently, therefore, one of the rarest of the St.-Helena Coleoptera. In its brightly maculated elytra and general sculpture it belongs to exactly the same type as the *N. rufopictus*; nevertheless it is considerably smaller and more globose than that species, as also a trifle less shining and more densely (although most minutely) cinereo-pubescent. Its prothorax is relatively a little less developed, as well as more thickly and not quite so coarsely punctured; its antennæ are proportionally somewhat longer and slenderer; and its elytra, which are slightly obovate in outline, have their striæ *very much* more closely and finely crenulated. This last character, although not the most evident at first sight, is perhaps its most important one.

161. *Notioxenus ferrugineus*.

N. oblongus, angustulus, elongatus, ferrugineus, subopacus, grosse et dense cinereo- aut fulvo-cinereo-pubescent; capite prothoraceque densissime et minute punctulatis, oculis magnis et valde prominentibus, hœc lineâ subbasali elevatâ sinuatâ vix antrorsum curvatâ; scutello obsoleto; elytris elongato-ovalibus, (subter pube) sat profunde punctato-striatis, per suturam necnon interdum in lineis duabus fractis antice evanescentibus plus minus nigrescentibus; antennis pedibusque infusate testaceis, illarum clavâ (præsertim art^o ult^{mo}) paululum obscuriore.

Variat elytrorum partibus nigrescentibus majoribus subconfluentibus. Long. corp. lin. $\frac{7}{8}$ — $1\frac{2}{3}$.

Notioxenus ferrugineus, Woll., *Ann. Nat. Hist.* viii. 405 (1871).

— —, Melliss, *St. Hel.* 157 (1875).

Habitat in graminosis (præcipue apertis) in intermediis editioribusque insulæ; vulgaris.

This is a most abundant insect in the intermediate and lofty districts of the island,—ranging from about the altitude of Plantation to the extreme summits of the peaks. It is found nearly always in *grassy* places, particularly on the open slopes, where it may often be brushed into the sweeping-net in great numbers. Under such circumstances it swarms at Plantation, as well as about West Lodge, High Peak, Cason's, Stitch's Ridge, and on the flanks of Diana's Peak and Actæon; and I also met with it at Thompson's Wood and in Peak Gut; but it is so extremely variable in stature (and to a certain extent also in the greater or less development of the darker streaks, or longitudinal dashes, of its elytra) that it was difficult to believe, until I had accurately examined them, that two species were not concealed amongst the mass of examples which are now before me. However, after a careful comparison of them, I can detect nothing whatever to enable me to recognize more than a single, somewhat variable form; though I think that the individuals which occur in the highest regions are, on the average, smaller and darker than those from the more strictly "intermediate" ones.

There is no fear of confounding the *N. ferrugineus* with any of the preceding members of the genus,—its comparatively narrow, elongate, *Sitona*-like outline, added to its nearly opaque and more or less ferruginous surface, which, however, is densely clothed with either a whitish or yellowish-cinereous pubescence, being of themselves sufficient to distinguish it. Its head and prothorax are very densely but minutely punctulated; and its elytra, when the scales have been removed, will be seen to be rather coarsely punctate-striate, and more or less ornamented with suffused blackish longitudinal streaks or dashes,—which, although sometimes (except along the suture) nearly obsolete, are occasionally enlarged and subconfluent, so as to cover the greater portion of the surface.

(Subfam. 3. HOMŒODERIDES.)

(*Prothorax simplex*, sc. *lineâ transversâ nullâ instructus*.)

Genus 69. HOMŒODERA.

Wollaston, *Ann. Nat. Hist.* v. 23 (1870).

Corpus et instrumenta cibaria fere ut in Notioxeno, sed illud ple-

rumque minoris magnitudinis et minus ornatum, semper plus minus pubescens, *prothoraceque* simplici, nec lineâ subbasali instructo.

The members of the present group are, on the average, smaller and less variegated than the *Notioxeni*,—the greater proportion of them being, although minutely pubescent, very obscure in colouring. The *H. elateroides*, however, which perhaps should be regarded as generically distinct, offers a slight exception to this rule; and the comparatively brassy surface of the *H. minor* and *pygmæa* separates them also, somewhat, from their congeners. But the main feature in which they all of them recede from *Notioxenus* consists in their prothorax having no appearance whatsoever of a subbasal prothoracic line,—a fact of considerable importance in the Anthribids. Although from their rather diminutive bulk and their want of lively tints the Homœoderas are insignificant insects *on the whole*, they nevertheless include amongst them a greater variety of form than even the *Notioxeni*—so much so indeed that, although I have failed to discover structural characters of sufficient value to enable me to break up the group, I cannot but think that the time may perhaps arrive when it will be found desirable to do so on the evidence afforded by mere external configuration alone. And yet I must emphatically repeat that this great outward dissimilarity is, to my mind, far more suggestive of missing links even yet to be detected, than of an aboriginal series of independent generic centres. And if this opinion should prove to be correct, in all probability *Homœodera* will be acknowledged eventually as by far the most extensive generic assemblage in the Coleopterous fauna of St. Helena.

The 13 Homœoderas which have hitherto been brought to light may be thus tabulated:—

- A. *elytra striâ suturali (antice evanescente) solum impressa.*
elateroides.
- AA. *elytra plus minus evidenter punctato-striata.*
- a. *elytra postice excavata, et ibidem grossissime nodoso-producta.*
nodulipennis.
- aa. *elytra inæqualia, sed vix nodulosa.*
Edithia.
- aaa. *elytra simplicia (i. e. nullo modo nodulosa).*
- β. *prothorax plus minus distincte punctatus.*
- γ. *elytra rotundato-elliptica.*
major.
- γγ. *elytra breviter suboblonga.*
compositarum,
pygmæa,
pumilio.

ββ. *prothorax vel omnino vel fere impunctatus.*
 rotundipennis,
 alutaceicollis,
 asteris,
 Paivæ.

AAA. *elytra esculpturata (striis punctisque obsoletis).*
 δ. *corpus grosse albido-pubescent.*
 coriacea.
 δδ. *corpus calvum.*
 globulosa.

162. *Homœodera elateroides.*

H. angustulo-subelliptica, elongata, plus minus æneo-picea, nitida, fere impunctata, pube demissâ fulvo-cinereâ nebuloso-sericata; capite confuse punctulato; prothorace magno, convexo, elongato-globoso, postice angustiore; scutello obsoleto; elytris convexis, elongato-ellipticis basi grosse marginato-truncatis, postice subattenuatis, ad apicem ipsum minute singulatim subnoduloso-gibbosis et abbreviatis (pygidium profunde longitudinaliter foveolatum haud tegentibus), hinc inde (præsertim versus latera in medio, in disco, necnon ante apicem) obsolete et suffuse subglabro-variegatis, striâ suturali impunctatâ (antice evanescente) solum impressis; antennis pedibusque infuscate testaceis, illis versus apicem vix obscurioribus, his elongatis crassis.

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

Habitat in locis valde elevatis, inter herbas (præcipue filices); rarior.

The comparatively large and elongate, or *Elater*-like, form of this *Homœodera*, in conjunction with its æneo-piceous hue, and its shining almost unsculptured surface (the elytra alone being impressed with a single, unpunctured, anteriorly-evanescent sutural line), which however, is densely sericated with a short silken fulvo-cinereous pubescence, will at once characterize it. Its outline, too, is very peculiar,—the prothorax being large, convex, and elongate-globose, but *narrowed behind*, whilst the elytra are elliptical but gradually a trifle attenuated posteriorly; and the latter, although not exactly variegated, are by no means uniform in tint, there being more or less evident indications of obsolete subglabrous spaces (having a just appreciably darker appearance) in various parts,—particularly about the middle of the lateral margin, down the disk, and towards the apex (which, however, itself is often slightly paler or rufescent).

The *H. elateroides* is confined to the loftier portions of the central ridge, and is decidedly scarce—though, by repeated visits to its proper *habitat*, I secured a tolerable supply of examples. They

were nearly all of them taken about Diana's Peak and Actæon, though I met with a few towards the summit of High Peak. Although it was by general brushing that they were obtained, I believe it was out of the masses of the ferns (either *Dicksonia arborescens* or *Diplazium nigro-paleaceum*) that my specimens were usually beaten. The species was found also by Mr. Gray.

163. *Homœodera nodulipennis*, n. sp.

H. breviter et crasse ovalis aut elliptica, nigro-picea, opaca, pube grossâ brevi demissâ cinereo-fulvâ dense sericata; oculis minoribus et haud prominentibus; prothorace breviter subconico, vix punctato sed minutissime subgranuloso; scutello obsoleto; elytris ovalibus basi late truncatis, grosse punctato-striatis, interstitiis inæqualiter elevatis interruptis, nodos efficientibus,—nodulo costiformi ad humeros, altero majore elevatiore in disco postico, et tertio maximo distorto sinuato postice obtuse producto, ante apicem concavo-excavatum in elytris singulis positus, præcipue discernendis; antennis pedibusque gracilibus, illis picescentibus, art.^{is} 1^{mo} et 2^{do} pedibusque testaceis.

Long. corp. lin. $1\frac{1}{4}$.

Habitat in editioribus insulæ, rarissima; in præruptis mox supra West Lodge parcissime deprehensa.

This is perhaps the most extraordinary member of the Coleoptera which has hitherto been detected at St. Helena,—the enormous, wonderfully produced and apparently mishapen, obtuse nodule with which the apex of each of its elytra is furnished being quite unprecedented in any insect with which I am acquainted. The narrow space between these two subapical protuberances, *i. e.* the apex itself, is anomalously scooped out or excavated; and since the protuberances are rather sinuate and curved inwards, at first sight they seem almost to meet, and give a most singular and somewhat grotesque appearance to the whole posterior region,—savouring more of an accidental monstrous development than of any thing else. But that the structure in question is not indicative of a “monstrosity” becomes perfectly clear when the creature is accurately examined, to say nothing of its being precisely similar in both of the examples which are now before me. In other respects the *H. nodulipennis* is remarkable for its thick, obtuse, shortly oval, or elliptical form,—the widest part being at the junction of the prothorax and elytra, which are broadly truncated at their respective bases; its eyes are

not quite so large, or so prominent, as in most of the *Homœoderas*; its surface is opaque and of a piceous black, but densely sericated with a short decumbent fulvescent pile; its limbs are abbreviated and slender, the legs and the two basal joints of the antennæ being testaceous; and, although its prothorax is well-nigh unsculptured, its elytra are coarsely and deeply punctate-striate, with the interstices raised and interrupted so as to shape out a few ill-defined and subsidiary nodules *in addition to* the two monstrously developed apical ones,—of which the most apparent is one on either posterior disk, and a less elevated costiform one at the shoulders.

The only two examples of this marvellous little insect which I have yet seen were captured by myself, early in February, at the extreme edge of the tremendous precipice, or crater-wall (constituting the south-western portion of the great central ridge), immediately above West Lodge,—in one of the most exposed and windy spots it is possible to imagine. So difficult indeed was it, on account of the violence of the gale, to examine, even in the most imperfect manner, any thing that presented itself, that I feel almost satisfied that I inadvertently threw several specimens away, mistaking them for the seeds of plants. Nor, indeed, is their *primâ facie* resemblance to seeds, when the limbs are contracted, altogether fanciful; for they at least have as much the appearance, at first sight, of a vegetable substance as of an animal one; and it was more by accident than any thing else that the symmetry of their outline induced me to put a couple of them into my collecting-bottle. They were obtained amongst small and broken-up sticks, *I think* of the common Gorse; though their close proximity to the shrubs of the *Aster gummiferus* (or “Little Bastard Gumwood”), which stud the inaccessible rocks and ledges below, incline me to suspect that the species may in reality belong to the fauna of that interesting but now rapidly disappearing arborescent Composite.

164. *Homœodera Edithia*, n. sp.

H. breviter subrotundato-ovata, arcuato-convexa, atra, nitida, fere calva (pube minutissimâ fulvo-cinereâ parcissime irrorata); capite confuse et parce punctulato, in fronte foveolato, oculis magnis sed haud valde prominentibus; prothorace conico, ad latera profunde sed parce punctato, sed in disco antico fere impunctato; scutello minutissimo, punctiformi; elytris convexis, basi late truncatis, grossissime substriato-punctatis (punctis maximis), ubique mal-

leato-inæqualibus et hinc inde obsolete subnodulosis,—spatio subnodiformi in disco antico, aliisque minoribus indistinctis in disco postico versus apicem, præcipue discernendis; antennis pedibusque elongatis, crassis, illis piceis clavâ (elongatâ) dilutiore articulisque 1^{mo} et 2^{do} rufescentioribus, his nigris, tarsis (elongatis, crassis) piceo-testaceis, etiam art^o basilari latiusculo.

Long. corp. lin. vix $1\frac{1}{2}$.

Habitat regiones valde excelsas, in ligno emortuo marcido *Buddleia madagascariensis*, Vahl, juxta Diana's Peak semel tantum reperta.

The only example of this most remarkable *Homœodera* which I have yet seen was captured by Mrs. Wollaston (after whom I have named the species) in the rotten trunk of a dead *Buddleia madagascariensis*, Vahl, immediately below the Actæon and Diana's-Peak ridge, close to a spot called Newfoundland. It is evidently one of the rarest of the St.-Helena Coleoptera; for, in spite of constant researches at the very same tree, we were quite unable to procure a second specimen.

The *H. Edithia* is one of the most anomalous of the *Homœoderas*; and yet (as in the case of the *H. nodulipennis*, which is even more anomalous still) I cannot detect a single structural character about it of sufficient importance to enable me to separate it generically from the remainder; and we can only conclude, therefore, that forms of a more or less intermediate aspect may even yet be brought to light to *articulate it on* (as it were) to the more typical members of the group. The main features which at once separate the *H. Edithia* from the other *Homœoderas* which have hitherto been detected, consists in its short, thick, convex, and rounded ovate body, its subconical, posteriorly widened prothorax, its deep black hue, and its shining and almost bald surface,—the elytra, however (the punctures of which are enormously developed), being uneven and malleated, with a faint trace of ill-defined obtuse prominences, or obsolete nodules. These latter are discernible in various parts, though more particularly on the fore disk and between the hinder disk and the apex. Its limbs are elongated and thick,—the antennæ being dark in the centre, with their club (which is much lengthened) more diluted, or browner, and with their first and second joints rufo-piceous; whilst the femora and tibiæ are black, and the feet (which are considerably elongate, and have even their *basal articulation* somewhat incrassated) piceo-testaceous.

165. *Homœodera major*, n. sp.

H. ovata, convexa, ænea (rarius nigrescens), nitida, pube grossâ demissâ fulvo-cinereâ parce nebulosa; capite prothoraceque distincte et subæqualiter punctatis, oculis magnis et valde prominentibus; hœc subconvexo, postice angustiore; scutello obsoleto; elytris convexis, rotundato-ellipticis, striato-punctatis, interstitiis latis depressis antice transversim subrugulosis, in medio fasciâ magnâ dentatâ transversâ valde indistinctâ subglabrâ (tamen concolori) obscure instructis; antennis pedibusque elongatis, illis nigrescentibus (clavâ elongatâ), art^{is} 1^{mo} et 2^{do} piceo-testaceis, his fusco-piceis.

Long. corp. lin. $1\frac{1}{3}$ –2.

Habitat in regionibus valde elevatis insulæ; rarissima.

A rather large and apparently scarce species, the only three examples which I have seen having been captured on the high central ridge,—two of them by myself, and the other by Mr. P. Whitehead. My own specimens were beaten off the blossoms of the *Melanodendron integrifolium*, DC., or “black cabbage-tree,” on nearly the extreme summit of Actæon. Apart from its somewhat large size (for a *Homœodera*), the *H. major* may be known by its convex, rounded elliptical elytra, and its shining, brassy surface, which is sparingly clothed with a coarse cinereous pubescence,—which latter, however, is absent from an obscure, transverse, dentate, fascia-like, but concolorous space across the central region of the elytra. Its limbs are elongate,—the antennæ (which have their club a good deal lengthened) being blackish, with the first and second joints piceo-testaceous, and the legs being brownish-piceous.

166. *Homœodera compositarum*, n. sp.

H. ovato-oblonga, nigra (sæpius obsoletissime subviridi aut sub-æneo-viridi tincta), nitida, pube grossâ demissâ cinereâ (rarius fulvo-cinereâ) parce nebulosa; capite (saltem in fronte) fere impunctato; prothorace profunde et dense punctato, in disco antico sæpe læviore; scutello obsoleto; elytris breviter sub-oblongis, grosse striato-punctatis, pone medium fasciâ dentatâ transversâ plerumque valde indistinctâ subglabrâ (tamen concolori) obscure instructis; antennis pedibusque nigrescentibus, illarum art^{is} 1^{mo} et 2^{do} piceo-testaceis.

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

Habitat inter *Compositas* arborescentes, vulgaris; in elevatis et sub-elevatis degens.

Variable in stature as the *Homœoderas* are, this one is perhaps the most variable of them all,—the largest specimens trebling, in actual bulk, the smaller ones. In its main features, however, it is not so very inconstant,—its rather oblong outline and dark surface (which is sparingly clouded with a coarse cinereous pubescence, and has usually a *very obsolete* greenish or brassy-greenish tinge), in conjunction with its distinctly punctured prothorax, the large and deep punctures of its elytral striæ, and its *blackish* limbs (the first and second joints of the antennæ being alone piceo-testaceous), being sufficient to characterize it.

The present *Homœodera* seems to be attached to the various arborescent *Compositæ*,—though *more*, I think, to the asters and gumwoods than to the cabbage-trees. Still I have beaten it frequently from the foliage of the latter in the very loftiest parts of the central ridge, about Actæon and Diana's Peak, as well as on High Peak; though it is infinitely more abundant amongst the *Aster gummiferus* (on the inner slopes of the great Sandy-Bay crater) beyond West Lodge, as well as amongst the gumwoods at Thompson's Wood, in Peak Gut, and towards Lufkins.

167. *Homœodera pygmæa*.

H. subovata, ænea, nitida, pube grossâ subdemissâ fulvo-cinereâ parce nebulosa; capite prothoraceque minutissime alutaceis punctisque parvis leviter notatis, hâc ovali; scutello obsoleto; elytris subovatis, punctato-striatis, interstitiis subconvexis et paululum rugulosis, pone medium fasciâ dentatâ transversâ valde indistinctâ subglabrâ (tamen concolori) obsoleto instructis; antennis nigrescentibus, art^{is} 1^{mo} et 2^{do} rufo-testaceis; femoribus tarsisque piceis, tibiis piceo-testaceis.

Variat (rarius) colore nigrescentiore, tibiisque concoloribus (nec piceo-testaceis),—*H. compositarum* fere simulans.

Long. corp. lin. $\frac{2}{3}$ — $1\frac{1}{4}$.

Homœodera pygmæa, Woll., *Ann. Nat. Hist.* v. 24 (1870).

— — —, Melliss, *St. Hel.* 157 (1875).

Habitat inter *Compositas* arborescentes, in locis elevatis, passim.

This is a rather small and insignificant species, though at the same time distinguishable amongst its allies by its somewhat more ovate outline and its conspicuously brassy hue, and by its tibiæ being nearly always diluted in colouring, or piceo-testaceous. Its head and prothorax will be seen under a powerful lens to be very minutely alutaceous, but nevertheless rather thickly studded with

small and lightly-impressed punctures; and its elytra (which are deeply and closely punctate-striate, with the interstices slightly convex) have traces (in unrubbed examples) of a very obscure post-median transverse fascia,—not differently coloured from the rest of the surface, but formed by the mere partial absence of the fulvo-cinereous pubescence. This last-mentioned character, however, as in the other species in which it obtains, is often altogether inappreciable.

I have taken this *Homœodera* sparingly on the central ridge about Diana's Peak and Actæon, as well as at Cason's (where it was likewise found by Mr. Gray) and at High Peak,—in which latter locality it was extremely abundant beneath the dead and loosened bark of a *Petrobium arboreum*, R. Br., or "whitewood cabbage tree." I also met with it at Thompson's Wood.

168. *Homœodera pumilio*, n. sp.

H. præcedenti similis, sed minor ac sensim minus ænea (sc. æneopicea, interdum etiam picea), capite prothoraceque sæpius minus alutaceis sed densius punctulatis, elytris vix minus convexis minusque rotundatis (sc. paululum magis parallelis aut breviter oblongis), pedibus omnino rufo-testaceis (sc. nullo modo in femoribus et tarsis picescentibus).

Long. corp. lin. $\frac{1}{2}$ –1.

Habitat in intermediis editioribusque (præsertim illis), vulgaris.

Although the largest examples are perhaps larger than the most dwarfed ones of these immediately allied forms, the *H. pumilio* is nevertheless, on the *average*, the smallest of the *Homœoderas* (not excepting even the *H. globulosa*) which have hitherto been brought to light; and although it has a good deal in common with the *pygmæa*, I am satisfied that it is quite distinct from that insect specifically. Moreover its habits, and range, are altogether different; for whilst the *pygmæa* is emphatically a native of the high central ridge, where it occurs amongst the arborescent *Compositæ*, it is only sometimes that the *pumilio* ascends into those altitudes, its proper area being strictly within the "intermediate" districts,—where it attaches itself in great numbers to the small and broken-up sticks of various trees and shrubs. Under such circumstances it absolutely swarms at Plantation (where it may be found, likewise, adhering to the fallen cones of fir-trees), in company with the *H. alutaceicollis* and the *Notioxenus dimidiatus*; but, from its minute size and the

close resemblance of its colour to the brown surfaces to which it is usually attached, it is not always easy to be recognized. It may often be seen crawling sluggishly (especially after showers) on old posts, within the cracks and crevices of which it is apt to conceal itself. At West Lodge, Thompson's Wood, and in Peak Gut the *H. pumilio* is extremely common; but it is *comparatively* seldom that I met with it on High Peak and the still loftier parts of the great central ridge.

Apart from its much smaller size (on the average), the *H. pumilio* differs from the *pygmæa* in being less decidedly brassy (though it has *usually* more or less of an appreciable ænescent tinge)—its colour being æneo-piceous, and sometimes even piceous only,—in its head and prothorax being generally less alutaceous but rather more closely punctulated, in its elytra being a little less convex and also a trifle less rounded at the sides, and in its legs, instead of having the femora and tarsi picescent, being wholly testaceous.

169. *Homœodera rotundipennis*.

H. crasse ovata, nigra, pube grossâ demissâ cinereo-fulvâ læte (interdum etiam ornate) marmorata; capite prothoraceque opacis, alutaceis (sed haud punctatis), illo magno mandibulis magnis, oculis haud valde prominentibus, hâc magno, postice paululum angustato, ad latera plus minus fulvo-pubescenti maculato; scutello minutissimo, punctiformi; elytris subquadrato-ovatis basi late truncatis, vix minus opacis (interdum obsoletissime subæneo tinctis), grosse et profunde striato-punctatis (punctis magnis), interstitiis rugulosis et subcostatis, in disco antico sæpe subconcavo-foveolatis, ad basin in medio, necnon in fasciâ postmediâ transversâ, plus minus evidenter fulvo-cinereo-pubescentibus; antennis gracilibus, nigrescentibus, art^{is} 1^{mo} et 2^{do} læte rufo-testaceis; pedibus elongatis, crassis, inæqualiter rufo-piceis.

Long. corp. lin. $\frac{7}{8}$ — $1\frac{1}{2}$.

Homœodera rotundipennis, Woll. *Ann. Nat. Hist.* v. 23 (1870).

—, Melliss, *St. Hel.* 157 (1875).

Habitat in intermediis (et, rarius, subeditioribus) insulæ; ad truncos antiquos emortuos *Asteris gummiiferi*, Hk. f., et *Commidendri robusti*, DC., necnon sub cortice arido laxo, præcipue adhærens.

The thick and squarish-ovate outline of this *Homœodera*, in conjunction with its comparatively large head and mandibles, its opaque but *unpunctured* head and prothorax (the latter of which is rather elongate, and somewhat narrowed behind), and its rounded-quadrate,

roughly sculptured elytra, will serve to distinguish it from its immediate allies. Its surface (which is black, and only rarely with a very faint subænescent tinge on the elytra) is, in fresh and unrubbed examples, beautifully dappled with a coarse, decumbent, fulvo-cinereous pubescence,—which in most instances completely covers the head, but is concentrated on the prothorax into a few elongated subconfluent patches *towards either side*; whilst on the elytra, although present in various parts, it is more particularly traceable in a small central patch at the extreme base and in a post-median transverse fascia. However, when the specimens are in the least degree worn and abraded, this ornamentation is quite absent. Its legs are long and thick, and of an unequal rufo-piceous hue.

Unless I am much mistaken, the *H. rotundipennis* is more attached to the arborescent asters and gumwoods than to any thing else; for, although I have taken it sparingly at Plantation, that district in all probability abounded once with gumwoods, and it is certainly quite at home amongst the gumwoods at Thompson's Wood, as well as amongst those in Peak Gut and between Peak Dale and Lufkins. At West Lodge, however, and more particularly in the *Aster*-grove beyond it (overlooking Lufkins), it is more common than in any spot which I observed, though it is evident that the species must, on the whole, be regarded as a scarce one. It is usually to be met with beneath the dead and loosened bark of the old trees, and even (in the very eye of the wind) on the *trunks themselves*, to which it would seem to have the power of adhering with wonderful tenacity. By Mr. P. Whitehead it has been obtained sparingly at Arno's Vale.

170. *Homœodera alutaceicollis*.

H. oblonga, nigra aut fusco-nigra, sæpius obsoletissime subæneo tineta, pube grossâ demissâ cinereo-fulvâ et albidâ nebulosa; capite prothoraceque alutaceis, subopacis (sed haud punctulatis), hôc longiusculo, postice paulum angustiore; scutello obsoleto aut vix discernendo; elytris suboblongis, paulum magis submicantibus, striato-punctatis, in medio obsoletissime albido- et pone medium subglabro-fasciatis; antennis rufo-testaceis, clavâ obscuriore; pedibus crassis, femoribus piceis, tibiis tarsisque (præsertim illis) magis testaceis.

Long. corp. lin. 1-1 $\frac{1}{4}$.

Homœodera alutaceicollis, Woll., *Ann. Nat. Hist.* v. 24 (1870).

— —, Melliss, *St. Hel.* 157 (1875).

Habitat intermedias insulæ (in regiones valde elevatas multo rarius

ascendens); truncis ramulisque emortuis, humi jacentibus, copiosissime adhærens.

This is one of the most common and widely-spread of the *Homœoderas* in the *intermediate* districts of St. Helena, though ascending likewise more sparingly into the highest ones. I met with only a very few specimens of it on the lofty central ridge; but at Plantation it absolutely swarms,—occurring principally, along with the *H. pumilio* and the *Notioxenus dimidiatus*, on dead sticks lying on the ground. It frequently attaches itself to old posts and gates, out of the crevices of which it may be seen to crawl sluggishly. I likewise met with it in Vine-Tree Gut (below Halley's Mount), as well as at West Lodge, and amongst the gumwoods in Thompson's Wood, Peak Gut, and towards Lufkins; and I am inclined to suspect that, in all probability, it is a remnant of the aboriginal gumwood fauna.

The *H. alutaceicollis* is a rather small and inconspicuous species; but it is one which may easily be recognized by its outline being somewhat more straightened, or oblong, than is the case in the immediately allied forms, whilst its head and prothorax (the latter of which is narrowed behind, and elongate) are opaque and finely alutaceous, but not appreciably punctured. Its pubescence is coarse, and consists partly of fulvo-cinereous and partly of whitish scales; its elytra, which are not quite so opaque as the rest of the surface, are distinctly striate-punctate; its antennæ, with the exception of the club (which is darker), are generally altogether rufo-testaceous; and its legs, which are much thickened, have their femora piceous, but their tibiæ and tarsi (especially the former) paler or more testaceous.

171. *Homœodera asteris*, n. sp.

H. alutaceicollis valde affinis, et forsan ejus varietas *Asteri glutinosi*, Roxb., propria. Differt præcipue staturâ minus oblongâ aut magis abbreviatâ, elytris sensim brevioribus, latioribus, ac magis rotundatis, antennisque vix sublongioribus.

Long. corp. lin. $\frac{3}{4}$ –1.

Habitat inter arbusculas *Asteris glutinosi*, Roxb. (anglice "Scrubwood"). Duo exemplaria collegit Dom. P. Whitehead.

It is not impossible that this obscure little *Homœodera* may prove eventually to be but a local state, or phasis, of the *alutaceicollis* peculiar to the *Aster glutinosus*, Roxb., or "Scrubwood;" but since there is a decided difference in the outline of its elytra, and its habits

do not appear to be the same, I am inclined to suspect that the two examples which are now before me may represent perhaps a separate but closely-allied form. Almost the only point, however, in which it recedes from the *alutaceicollis*, so far at least as I can detect, consists in its shorter, or less oblong, contour (the elytra being rounder and more abbreviated, and therefore relatively a little broader); and its antennæ are perhaps just perceptibly longer; but the scrubwood fauna embraces so many species which do not pertain to that of the other arborescent *Compositæ*, that I think it is safer to treat this *Homœodera* as distinct from the *alutaceicollis* and to wait for further evidence to enable us to decide the question positively.

It is to Mr. P. Whitehead that we are indebted for this addition to the St.-Helena fauna,—the only two examples which I have seen having been captured by him from some bushes of the scrubwood between Sugarloaf and Flagstaff Hill, in the extreme north of the island.

172. *Homœodera Paivæ*, n. sp.

H. ovata, nigra, obsoletissime subviridi-tincta, pube grossâ demissâ fulvo-cinereâ parce vestita; capite prothoraceque subopacis, grosse alutaceis (sed haud punctatis), hâc ovali; scutello obsoleto, aut vix discernendo; elytris ovatis, paulo magis micantibus, profunde striato-punctatis, pone medium obsolete fasciatis; antennis breviusculis, nigrescentibus, art^{is} 1^{mo} et 2^{do} (præsertim illo) rufo-testaceis; pedibus longiusculis, crassiusculis, nigrescentibus.

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

Habitat (nisi fallor) in editioribus insulæ, a meipso semel tantum lecta.

The single example from which I am compelled to describe this minute *Homœodera*, and which was taken by myself (I believe, on the central ridge), has more the appearance at first sight, in its greenish-black hue and dark legs, of a very diminutive specimen of the *H. compositarum*, did not its opake, *alutaceous*, and totally *unpunctured* head and prothorax refer it to the present division of the genus. Moreover even its elytra are less shining than in the *H. compositarum*, as well as less coarsely striate-punctate and very much more rounded (or ovate) in outline. From the *H. alutaceicollis*, on the other hand, it is abundantly distinct, not only in its smaller size and in its much more ovate (or less straightened) contour, but likewise in its *greenish-black* hue, in the darkened intermediate joints of its antennæ, and in its blackened legs.

I have had great pleasure in dedicating this little *Homœodera* to my excellent friend the Barão do Castello de Paiva, of Lisbon, whose former researches at Madeira and in the Canaries have thrown so much light on the natural history of those particular archipelagos.

173. *Homœodera coriacea*.

H. ovata (rarius oblongo-ovata), nigra, opaca, coriacea, esculpturata (nec punctata, nec striata), pube grossâ demissâ fulvo-cinereâ et albidâ parce nebulosa; scutello obsoleto, aut vix observando; elytris ad basin versus humeros, necnon in fasciâ mediâ obsoletissimâ fractâ, interdum albido-pubescentibus; antennis rufo-testaceis, clavâ obscuriore; pedibus crassiusculis, nigrescentibus. *Variat* corpore obsoletissime subæneo tincto, tibiis sensim dilutioribus.

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

Homœodera coriacea, Woll., *Ann. Nat. Hist.* viii. 406 (1871).

— —, Melliss, *St. Hel.* 157 (1875).

Habitat in intermediis insulæ, nisi fallor *Commidendro robusto*, DC. (anglice "Gumwood") propria.

Judging from the five examples only which are now before me, this obscure little *Homœodera* would appear to be one of the rarer members of the group; though, if I am right in concluding that it is attached normally to the gumwoods, it is far from unlikely that when those trees have been more completely searched it will be found to occur commonly enough in some locality which has hitherto been but imperfectly investigated. My own specimens were captured at Plantation and in Peak Gut, in the latter from the foliage of the gumwood; but where Mr. Melliss's unique example was met with, I have not the means of ascertaining. At any rate I have no evidence hitherto that the species ascends above the intermediate districts.

Apart from its diminutive size, the present *Homœodera* may immediately be recognized by its nearly opaque, coriaceous, but *totally unsculptured* surface,—which, however, in fresh and unrubbed examples, is more or less sparingly clouded with coarse, decumbent, whitish scales. Its colour (beneath the scales) is normally of a deep black with a just *appreciable* subcyaneous tinge, and its legs are likewise dark; but there seems to be a state, or variety, in which a very faint *ænescent* lustre is traceable, and in which the tibiæ (as in the *H. alutaceicollis*) are perceptibly diluted in hue. Still its total

want of sculpture (even on the elytra) will at once distinguish the species.

174. *Homœodera globulosa*, n. sp.

H. rotundato-ovata, convexa, piceo-nigra (immatura picea), subopaca, fere calva et fere esculpturata (sc. pube, punctis, et striis omnino obsoletis); prothorace breviter subcylindrico-ovali; scutello obsoleto; elytris globoso-ovalibus; antennis pedibusque piceo-testaceis, illarum clavâ picescentiore, his crassis.

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

Habitat in herbidis valde elevatis, minus frequens.

The convex, rounded, subglobose contour of this singular little species, added to its practically bald, *unsculptured*, subopaque surface, and its piceous-black concolorous hue (the limbs alone being paler), give it an appearance, at first sight, so different from the whole of the preceding members of the group that it might almost seem to merit generic separation. Yet, after a careful overhauling of its various details, I cannot detect any thing about it sufficient for that purpose; and I can, therefore, only conclude (as I did in the somewhat analogous cases of the *H. nodulipennis* and *Edithia*) that future observations will in all probability bring to light intermediate forms (if indeed they have not already become extinct) which will justify the propriety of retaining it even now amongst the true *Homœoderas*.

The *H. globulosa* is confined to the high central ridge; indeed, with the exception of a single individual which I met with above West Lodge, the whole of my specimens (about 50 in number) were captured on the very loftiest portion of it,—in the neighbourhood of Actæon and Diana's Peak. They were all of them obtained by general brushing; so that I am unable to decide as to the particular plant to which the species is attached; but I think it most likely that it belongs to the cabbage-tree fauna. It was found also below the Cabbage-tree Road by Mr. P. Whitehead.

Genus 70. **ACARODES** (nov. gen.).

Corpus et cæt. fere ut in *Homœodera*, sed *illud* breviter ovatum, valde arcuato-convexum, globuli- aut potius guttiforme, politissimum, glaberrimum, calvum, subtranslucidum; *oculis* parvis; *prothorace* breviter conico; *scutello* nullo; *tarsisque* magis simplicibus (sc. minus late bilobis).—N.B. Genus *Xenorches*, insularum

Maderensium, simulans, et ei certe proximum. Differt, tamen, inter alia, corpore haud saltatorio, antennis pedibusque gracilioribus ac minus elongatis, tarsorum art^o 1^{mo} multo brevior, 3^{tio}que minus evidenter bilobo.

Ab *Acarus*, et *eidōs*, aspectus.

Without any very decided structural peculiarities to separate it from the members of that assemblage, it is almost impossible to admit the singular little Anthribid from which the above diagnosis has been compiled amongst the Homœoderas,—its extremely convex, shortly ovate, *drop-shaped* contour, in conjunction with its *totally unsculptured*, highly polished, bald, and subtranslucid surface (which is either black or piceous black), giving it a character which is essentially its own. In point of fact, it so closely resembles at first sight the curious *Xenorchestes saltitans* of Madeira that, before I had examined it accurately, I felt disposed to refer it to the same actual genus; nevertheless its complete want of the capacity for *hopping*, added to its shorter and slenderer limbs (the first joint of the feet being very conspicuously less elongate, and the third one less evidently bilobed), incline me to think that it should be treated as the exponent of a distinct but intimately connected group. Its manifest relationship, however, with one of the rarest and most remarkable of the Madeiran types gives it an interest, geographically, which it is difficult to overrate.

175. *Acarodes gutta*, n. sp.

A. breviter ovata, arcuato-convexissima, nitidissima, glaberrima, calva, nigra aut piceo-nigra, subtranslucida, omnino esculpturata; oculis parvis sed prominulis; prothorace breviter conico; elytris versus basin interdum obsolete et suffuse subtranslucido-dilutioribus, sed sæpius omnino concoloribus; antennis pedibusque gracilibus, piceo-testaceis, illarum clavâ tarsisque paulo picescentioribus. Long. corp. lin. circa $\frac{1}{2}$.

Habitat inter folia putrida marcida, humi jacentia, in regionibus valde elevatis; sat vulgaris.

This anomalous little Anthribid was first detected by Mrs. Wollaston,—who secured several examples of it (on two or three different occasions, and before I was able to meet with a single one) at a very high altitude on the central ridge, immediately below the extreme summit of Actæon. They were all of them obtained on the wet ground amongst sodden leaves,—*between* which they would

secrete themselves, in much the same manner as many of the *Philhydrida* do in other countries; and it was only afterwards, by sifting, that I succeeded myself in securing additional individuals. Having once, however, found out their exact *modus vivendi*, I soon ascertained that any number of specimens could be procured by either shaking or sifting the damp rotting leaves which strewed the ground beneath the cabbage-trees; and by this process we accumulated ultimately a considerable series. From its small size, unsculptured brilliantly-polished surface, inflated outline, and dark hue, the insect is so suggestive at first sight of a large *Acarus* that when found in company with the latter it was not always easy without the aid of a lens to distinguish immediately between the two.

Fam. 32. BRUCHIDÆ.

Genus 71. BRUCHUS.

Geoffroy, *Ins. de Paris*, i. 163 (1672).

176. *Bruchus rufobrunneus*.

B. quadrato-subovatus, rufo-brunneus in elytris clarior, subtus dense cinereo sed supra inæqualiter fulvescenti et cinereo piloso-variegatus; capite prothoraceque dense ruguloso-punctatis, illo argute carinato, oculis magnis, luniformibus, hóc conico, in parte mediâ basali maculâ quadratâ subbipartitâ cinereâ ornato; scutello rotundato, cinereo; elytris quadratis, profunde striatis, interstitiis convexis ac rugulosis, fasciis 3 obsoletissimis (interdum suffusis et vix discernendis) intus plus minus abbreviatis obscure nebulosis; antennis pedibusque piceo-testaceis, illis versus apicem (saltem in ♂) pedibusque posticis paulo obscurioribus, femoribus posticis denticulis duobus contiguis (e marginibus externo et interno surgentibus) subtus armatis, tibiis posticis ad angulos apicales internos spinis duâbus inæqualibus (unâ sc., præsertim in ♂, elongatâ, robustâ) terminatis.

Mas antennis multo longioribus, paulo crassioribus, intus longe pectinatis; pedibus anterioribus etiam subgracilioribus.

Long. corp. lin. circa $1\frac{1}{2}$.

Bruchus rufobrunneus, Woll., *Ann. Nat. Hist.* v. 25 (1870).

— —, Melliss, *St. Hel.* 157 (1875).

Habitat in domibus, mercatorumque repositoriis; in insulam invecus.

I did not meet with either the present *Bruchus* or the following one during our sojourn at St. Helena,—having had but little

leisure to devote to the mere introduced species which occur about the warehouses and stores, and which in every country constitute a section of the fauna which is of all others the *least* important. Several examples, however, of the *B. rufobrunneus*, and one of the *advena*, were found by Mr. Melliss amongst rice; and it was with considerable reluctance, knowing how extremely liable to accidental dissemination the *Bruchi* are throughout the civilized world, that I felt compelled (in 1869) to describe them as new. Yet having been unable, both then and since, to affiliate them with any species which had already been characterized, I have no option but to cite them afresh under the titles which I ventured to propose,—leaving the question of their identity, or otherwise, with previously-defined forms still open for future consideration.

In my remarks on the *B. rufobrunneus*, in 1870, I stated that its main features appeared to consist in its reddish-brown hue,—the elytra, however, being more pale and rufescent than the head and prothorax; in the latter being dappled with cinereous scales, which are concentrated into a squarish central bipartite patch in the middle (behind the scutellum), and sometimes apparently into two obsolete and fragmentary oblique bands; in its head being powerfully keeled; in its elytra being deeply striate (with the interstices convex), and likewise ornamented (in unrubbed specimens) with rudimentary bands or fasciæ on either side,—composed, in examples which are highly coloured, of darkish cloudy patches, with a few ashy scales between; in the antennæ of the male being very much longer than those of the female, and deeply pectinated internally; and in its two posterior femora being armed beneath with two small denticles, alongside each other and arising out of the inner and outer edges respectively,—whilst the two inner angles of its two hinder tibiæ are each terminated by a spine, one of which (particularly in the male sex) is robust and elongated.

177. *Bruchus advena*.

B. præcedenti similis, sed paulum angustior ac sensim magis ellipticus (sc. elytris sublongioribus pygidioque minus perpendiculari), capite minus evidenter carinato, prothorace subprofundius punctato et postice in medio haud cinereo- (tantum fulvescenti-) pubescente, elytris minus depressis, clarius rufescentibus, lætiusque pictis, multo magis tenuiter leviusque subcrenulato-striatis, interstitiis valde depressis (nec convexis), antennis brevioribus ac

magis compactis, femoribus posticis omnino simplicibus (nec subtus denticulatis), spinisque tibiæ terminalibus minus robustis.
Long. corp. lin. $1\frac{1}{2}$.

Bruchus advena, Woll., *Ann. Nat. Hist.* v. 26 (1870).

———, Melliss, *St. Hel.* 157 (1875).

Habitat in locis similibus ac præcedens; mihi non obviæ.

The single individual (a female) from which I was compelled in 1870 to enunciate this *Bruchus* still embodies all that I have seen of the species which it represents. There can be no doubt that, like the preceding one, it is a mere accidental importation into St. Helena, perhaps along with either fruits or seeds; but whether it has become thoroughly established in the stores and warehouses of the island I am scarcely in a position to decide.

The *B. advena* has much the same general colouring as the *rufobrunneus*, and in all probability it must have been introduced originally from the same country (wheresoever that may be); nevertheless, judging from the single example which is now before me, it is a little narrower and more *elliptical* than that species (its elytra being rather longer, or less *quadrate*, and its pygidium less perpendicularly decurved, and therefore more visible from above), its head is less evidently keeled, its prothorax is free from the square patch of *whitish* scales in the centre of the base, its elytra (which are less depressed) are of a redder tint and apparently more highly decorated with fascia-like markings, as well as *very* much more finely and lightly striated and with the interstices considerably flatter; its antennæ are shorter and more compact; and its two hind legs have their femora entirely free from the small denticles which characterize its ally, and the terminal spines of their tibiæ less developed.

Sectio 9. EUCERATA.

Fam. 33. CERAMBICIDÆ.

Genus 72. CURTOMERUS.

Stephens, *Man. Brit. Col.* 269 (1839).

178. *Curtomerus pilicornis*.

C. angustus, cylindricus, subnitidus, rufo-ferrugineus, pilis fulves-

centibus suberectis ubique (etiam in antennis pedibusque) parce vestitus; capite deflexo, oculis magnis, valde prominentibus, sublunato-reniformibus; prothorace ovali cylindrico, postice angustiore, antice constricto, punctis perpaucis asperatis aut tuberculiformibus adperso; elytris cylindricis, basi recte truncatis, parce subseriatim (antice subasperato-) punctatis; antennis pedibusque elongatis, vix clarioribus, femoribus basi pedunculatis, apicem versus valde clavatis.

Long. corp. lin. vix 4.

Callidium pilicorne, *Fab., Ent. Syst.* ii. 327 (1792).

—— *luteum* (*Mshn*), *Steph., Ill. Brit. Ent.* iv. 249 (1831).

Curtomerus luteus, *Id., Man. Brit. Col.* 275 (1839).

—— *pilicornis*, *Woll., Ann. Nat. Hist.* viii. 407 (1871).

—— —, *Melliss, St. Hel.* 158 (1875).

Habitat in domibus hortisque ad Jamestown, ex alienis introductus; rarior.

I did not obtain this Longicorn at St. Helena; but three examples of it were captured by Mr. Melliss at Maldivia, above Jamestown,—“flying into the house at night;” and there can be no question that the species is merely a naturalized one. Indeed the West-Indian Islands would appear to be its proper country; and so liable is it to accidental transmission (along, probably, with timber), through indirect human agencies, that it has on one or two occasions been found alive even in England.

The narrow and cylindrical outline of the *C. pilicornis*, added to its pale reddish-brown concolorous surface and the long and suberect hairs with which it is everywhere studded (even upon its limbs), will at once distinguish it from every thing else with which we are here concerned. Its antennæ and legs are considerably lengthened; and the latter have their femora slender and pedunculated at the base, but much clavate towards the apex.

Fam. 34. LAMIIDÆ.

Genus 73. COPTOPS.

Serville, *Ann. Soc. Ent. de France*, 64 (1835).

179. *Coptops bidens*.

C. late subcylindricus sed postice gradatim attenuatus, pilis griseis cinereisque demissis densissime tectus; capite deflexo, oculis magnis sed haud prominentibus, profunde excavato-luniformibus; prothorace brevi, transverso, tamen subcylindrico, grosse noduloso-

inæquali, ad latera ante medium spinâ brevi obtusâ nigrescentiore armato; elytris antice prothorace multo latioribus, dense griseo-nebulosis et parce cinereo irroratis, maculisque perpaucis rotundatis punctiformibus nigrescentibus (antice tubercula amplectentibus) adpersis, et utrinque in disco postico plagâ longiore subcurvatâ lineiformi longitudinali ornatis; antennis pedibusque elongatis, crassis, dense griseo- et cinereo-pubescentibus, tarsis latis et læte nigro variegatis.

Long. corp. lin. 8-9.

Habitat in hortis insulæ, præcipue in apricis inferioribus juxta Jamestown, *Ficos* et cæt. destruens; ex alienis certe introductus.

This large, thick, robust, *Lamia*-like Longicorn has become naturalized accidentally in the gardens of St. Helena, in low and hot localities about Jamestown,—where it appears more particularly to attack the fig-trees, to which it is becoming extremely destructive. I am indebted to the Rev. H. Whitehead for obtaining examples for me in both the pupa and imago states, the former of which I reared after a very brief interval. In addition to its large stature (as compared with the St.-Helena Coleoptera generally), it may be known by the short and obtuse spine with which the edges of its very uneven and transverse prothorax are furnished before the middle, and for the dense manner in which its entire surface is clothed or mottled with a griseous and whitish pubescence. Its elytra (which are much broader anteriorly than the prothorax) taper gradually and slightly towards their apex; and, apart from the few small, rounded, blackish specks with which they are besprinkled (and which near to the base pass into elevated tubercles), there is a *short* curved longitudinal dark line, or dash, on either disk behind the middle; and the feet, which are considerably expanded, are beautifully variegated with black.

Sectio 10. PHYTOPHAGA.

Fam. 35. HALTICIDÆ.

Genus 74. LONGITARSUS.

Latreille, *Fam. Nat.* 405 (1825).

The *Longitarsi* of St. Helena belong to a rather singular type,

and are unquestionably aboriginal members of the fauna,—being peculiar to the foliage of the various cabbage-trees at a high elevation. They are of a more or less brassy green tint, with their limbs extremely elongated, and with the basal joint of their four front feet in the males much expanded or enlarged. But their most remarkable feature consists in the superficial dissimilarity of the sexes; for while the males are free from inequalities, except in the case of the prothorax of the *L. Mellissii*, which has its sides impressed with two transverse grooves, the females, on the other hand, have their elytra not only more conspicuously margined at the base and sides, but likewise more or less *malleated*, or irregularly impressed, on either outer disk,—forming in the *L. Janulus* inequalities of a most extraordinary and anomalous kind. Some of the main characters of the three species which have hitherto been brought to light may be thus briefly formulated:—

- a. *elytris in ♀ pone humeros paulum malleato-inæqualibus. ♂ omnino simplex. helenæ.*
 aa. *elytris in ♀ in medio valde et profunde malleato-inæqualibus. ♂ omnino simplex. janulus.*
 aaa. *elytris in ♀ pone humeros paulum concavis. ♂ et ♀ ad latera prothoracis transversim biimpressi. Mellissii.*

180. *Longitarsus helenæ*.

L. subellipticus, æneo-viridis, subnitidus, subalutaceus; capite impunctato; prothorace punctulis levibus minutissimis parce irrorato; elytris profundius punctatis, plerumque distinctius subænescentibus; antennis pedibusque longissimis, rufo-testaceis, illis versus apicem femoribusque posticis paulum obscurioribus.

Mas tarsis anterioribus art° 1^{mo} magno, valde dilatato.

Fœm. tarsis anterioribus simplicibus; elytris sublongioribus ac magis obovatis (postice paululum magis attenuatis), ad basin et latera distinctius marginatis, necnon pone humeros malleato-inæqualibus, tamen costulis valde abbreviatis subbasalibus circa 2 vel 3 in parte malleatâ discernendis.

Long. corp. lin. 1–vix 1½.

Longitarsus Helenæ, Woll., Journ. of Ent. i. 214 (1861).

— — —, *Id., Ann. Nat. Hist. v. 27 (1870).*

— — —, *Melliss, St. Hel. 158 (1875).*

Habitat ad folia Compositarum arborescentium in editioribus insulæ, usque ad summos montes copiosissime ascendens.

This is the universal *Longitarsus* of the higher elevations of St.

Helena,—occurring on the foliage of the various cabbage-trees, and ascending to the very summits of the peaks. Indeed so abundant is it that it is almost impossible to find a single cabbage-tree from which it may not be beaten in actual profusion. Yet up to the date of our arrival in the island I had seen but three examples of it,—one of which was taken by the late Mr. Bewicke in 1860, and the other two more recently by Mr. Melliss. As they happened moreover to be all of them males, I was unable to pronounce for certain on the characteristics of both sexes; but I now perceive that while the male is perfectly free from inequalities, the female has a portion of its elytra uneven, or malleated (enclosing two or three very abbreviated longitudinal costæ), behind either shoulder. The females also have their elytra proportionally a trifle more elongated than the males, as well as a little more obovate in outline; and the *males* descend to a much smaller stature than either of the other species which have as yet been detected.

181. *Longitarsus janulus*, n. sp.

L. præcedenti similis, sed submajor et paulo minus metallicus, prothorace distinctius punctato, elytris in ♀ multo minus nitidis ac multo magis inæqualibus,—sc. utrinque in medio valde et profunde malleato-excavatis (tamen costis minus abbreviatis circa 4 in excavatione discernendis), antennis in ♂ multo magis incrassatis, necnon art^o 1^{mo} tarsorum anteriorum in ♂ etiam magis dilatato (sc. maximo).

Long. corp. lin. $1\frac{1}{8}$ – $1\frac{1}{3}$.

Habitat ad folia *Lachanodes prenanthifloræ*, Burch.; in loco quodam paulum minus elevato, Vine-Tree Gut dicto, sat copiose repertus.

The only spot in which I observed this very distinct *Longitarsus* is a little ravine below Halley's Mount and between Oakbank and Hutt's Gate, known as Vine-Tree Gut,—where it was extremely abundant on the foliage of the curious *Lachanodes prenanthiflora*, or “she cabbage-tree.” It is a rather larger insect than the *L. helencæ*, and of not quite so lively a metallic green. Indeed its female sex is comparatively dull and opaque, and has the elytra so wonderfully and deeply malleated down either outer disk as to cause the whole surface to appear coarsely wrinkled and (as it were) imperfectly developed,—leaving, however, three or four abbreviated longitudinal ridges (not so short as in the *L. helencæ*) conspicuous within the excavation. Its *males* moreover differ from those of the

L. helenæ in having their antennæ very much thicker or more developed, and in the basal joint of their four anterior feet being still more broadly expanded. Its prothorax too, in both sexes, is much more coarsely punctured than that of the *L. helenæ*.

182. *Longitarsus Mellissii*.

L. elongato-subellipticus, æneo-viridis, nitidus; capite nitidissimo, impunctato; prothorace antice nitidissimo et vix punctato, ad latera et postice profundius punctato, necnon ad latera late transversim biimpresso et grossius marginato, angulis anticis incrassatis, subferrugineis; elytris dense, profunde, et grosse punctatis; antennis pedibusque longissimis, crassis, testaceis, illis versus apicem femoribusque posticis vix obscurioribus.

Mas tarsis anterioribus art^o 1^{mo} magno, valde dilatato.

Fœm. paulo rugosius punctata; tarsis anterioribus simplicibus; prothorace utrinque profundius transversim biimpresso; elytris sublongioribus, ad basin et latera distinctius marginatis, necnon pone humeros late sed vix profunde excavatis, excavatione fere simplici (nec intus costulis abbreviatis instructâ, sed extus costâ elongatâ laterali terminatâ).

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

Longitarsus Mellissii, Woll., *Ann. Nat. Hist.* viii. 407 (1871).

—, *Melliss*, *St. Hel.* 158 (1875).

Habitat in locis valde elevatis, inter *Compositas* arborescentes; rarior.

This is the largest and most *shining* of the three species, it being in no part even obsoletely alutaceous; and it is also the most coarsely punctured (particularly in the females), and with the legs a trifle thicker. But its main feature consists in the prothorax being (in both sexes, though more especially in the female one) impressed on either side with two wide transverse grooves. This character is extremely important, because in the other two members of the genus the prothorax is in both sexes perfectly free from inequalities. Its elytra, however, are more even in the female sex than those of the *L. helenæ* and *janulus*,—there being merely a wide and simple excavation behind the shoulders, bounded externally by a single lateral costa which extends nearly the whole length of the elytra. The anterior angles of its prothorax, also, are not only more thickened than in either of the preceding species, but they are even slightly ferruginous; and the apex of the elytra in the male sex seems to be a little diluted in hue, or subflavescent.

So far as my own experience is concerned, the *L. Mellissii* is by

far the rarest of the St.-Helena *Longitarsi*, the few examples which I met with (and *one* more was found by Mr. Gray) having been captured from the foliage of the cabbage-trees, in the vicinity of Diana's Peak and Actæon, on the high central ridge. Mr. Melliss's two specimens, from which in 1871 I enunciated the species, appear to have been taken likewise in the same district*.

Fam. 36. CASSIDIDÆ.

Genus 75. ASPIDOMORPHA.

Hope, *Col. Man.* (1840).

183. *Aspidomorpha miliaris*.

A. "flava thorace immaculato, elytris nigro punctatis, margine bifasciato. Statura *C. marginatæ*. Antennæ flavæ, apice nigræ. Thoracis clypeus rotundatus, integer, immaculatus. Elytra lævia, flava, punctis circiter 10 nigris sparsis. Margo uti in reliquis dilatatus fasciis duabus, alterâ ad basin, alterâ versus apicem, nigris. Sutura apice nigra. Subtus nigra, margine flavescente. Pedes flavi." [Ex *Fabricio*.]

Cassida miliaris, *Fab., Syst. Ent.* 91 (1775).

— — —, *Id., Syst. Eleu.* i. 400 (1801).

Aspidomorpha miliaris, *Bohem., Mon. Cass.* ii. 261 (1854).

— — —, *Woll., Ann. Nat. Hist.* v. 28 (1870).

— — —, *Melliss, St. Hel.* 158 (1875).

Habitat "in ins. St. Helenæ. *Mus. Dom. Banks.*" [Ex *Fabricio*.]

* As it seems to have been founded upon some strange geographical misconception, I need scarcely perhaps allude to the fact that a *Cryptocephalus* was described by Fabricius in 1775, under the title of *C. ruficollis*, as coming from St. Helena; nevertheless, as this is the proper place in our catalogue for noticing it, it may be desirable just to mention that it was from an example professedly St.-Helenian, in the collection of the late Sir Joseph Banks, that Fabricius's diagnosis was drawn out. Fabricius, however, appears to have fallen into some unaccountable confusion concerning the *habitat* of his insect; for in 1792 he cited it as occurring not *only* in St. Helena, but likewise (on the authority of Prof. Helwig) in Italy! In 1798 he seems to have discovered that it was not a *Cryptocephalus* at all, but a *Clythra*; whilst in 1801, whilst quoting it as the *Clythra ruficollis*, he still *refers* to his former volumes, but loses sight of the St.-Helena *habitat* altogether, and gives it simply as South-European! Under these circumstances, and as I have no evidence whatsoever that either a *Clythra* or a *Cryptocephalus* has ever been captured in the island, it is only natural to assume that Fabricius fell into an error as regards the country in which his *C. ruficollis* was taken, and that, as several of the Banksian Coleoptera were unquestionably St.-Helenian, he inadvertently assumed this one (which is from Southern Europe) to be so likewise; though if this should be the case, and he subsequently became aware of his blunder, it is simply unpardonable that he should have quietly shifted its *habitat* (in his later publications) without stating plainly that he had been originally mistaken in recording an insect from the south of Europe as a St.-Helena one.

Although I admitted this insect into the St.-Helena catalogue in 1870, on the evidence of Fabricius, who described it (in 1775) from an example in the collection of the late Sir Joseph Banks, yet I must confess, after our six months' sojourn in the island, that I am far more disposed to strike it out altogether; for I feel almost satisfied that no member of the *Cassididæ* occurs now at St. Helena. Indeed Boheman, in his elaborate monograph of the family, does not acknowledge Fabricius's *Cassida miliaris* as a St.-Helena insect at all, but cites it from the East Indies, Java, Celebes, the Philippine Islands, and China; and yet the fact remains that the actual *type* from which it was originally enunciated was (whether correctly so or not) professedly St.-Helenian. We are therefore at once confronted by a geographical difficulty; for either Fabricius fell into an error regarding the original *habitat* (as indeed I certainly think that he did in the case of the *Cryptocephalus ruficollis*, and perhaps also in that of the *Epilachna chrysomelina*), or else we have the strange phenomenon of a species from Eastern Asia existing likewise in a remote island of the Southern Atlantic. In this dilemma some such explanation as the following seems to me to be not altogether impossible. It is well known that when the island was in the hands of the East-India Company no expense was spared in importing trees and shrubs from various parts of the world, even *birds* having been naturalized through their instrumentality; and I can conceive it by no means unlikely that a consignment of plants from India may have been the means of introducing accidentally a few stray examples of this conspicuous *Aspidomorpha*, and that the species may thus have been literally taken at St. Helena, even though destined otherwise immediately to die out. This at all events commends itself to my mind as a not unsatisfactory solution of a problem which is at first sight difficult,—seeing that the grounds (whether at Plantation or elsewhere) in which exotic plants would most probably be experimented upon would almost certainly be watched with considerable care, so that a brightly coloured insect like the one which we are now considering could hardly fail to be noticed and perhaps secured. Nevertheless, as I do but offer this as a conjecture, I will include the species in our list—qualified thus distinctively, and not without an emphatic protest; for I have a far greater inclination, in reality, to avoid all allusion to it as a member of the present fauna.

Sectio 11. PSEUDOTRIMERA.

Fam. 37. COCCINELLIDÆ.

Genus 76. CHILOMENES.

Chevrolat, in *Dej. Cat.* 459 (1837).184. *Chilomenes lunata*.

C. subhemisphærica, nitida, minutissime et levissime (vix perspicue) punctulata; capite albido-testaceo, epistomate late emarginato; prothorace brevi, sublunato, albido-testaceo sed per basin late nigro, parte nigrâ in medio quadrato-ampliata; scutello elytrisque nigris, sed his maculis 5 magnis rufis vel flavo-rufis (sc. 1 basali et 1 apicali maximis elongatis sublunato-arcuatis, 1 brevior sub-lunatâ in disco postico, et 2 paulo minoribus subrotundatis in disco antico) læte ornatis, limbo subrecurvo, nigro; antennis pedibusque piceo-testaceis.

Long. corp. lin. $2\frac{2}{3}$ – $3\frac{1}{2}$.*Coccinella lunata*, *Fab., Syst. Ent.* 86 (1775).*Cydonia lunata*, *Muls., Sécurip.* 431 (1851).— —, *Woll., Journ. of Ent.* i. 214 (1861).— —, *Id., Ann. Nat. Hist.* v. 29 (1870).*Chilomenes lunata*, *Crotch, Revis. Coccinell.* 179 (1874).*Cydonia lunata*, *Melliss, St. Hel.* 159 (1875).

Habitat ubique in insulâ, ab orâ maritimâ usque ad summos montes ascendens.

There is hardly a Coleopterous insect more common in St. Helena than this large and beautifully spotted ladybird,—which, although more abundant in the lower and warmer parts of the island than in the higher ones, occurs from the sea-level to the summits of the peaks. Indeed it was the very first beetle that we met with on landing,—several examples having been captured by Mrs. Wollaston on our way up from the beach to Jamestown. It swarms on the foliage of plants, as well as beneath stones and crawling over the hot ground, and, indeed, almost everywhere. It was taken in profusion by Mr. Gray, particularly in arid places around High Knoll, and likewise by Mr. Melliss; and it was found by Colonel Warren on the Barn. In fact it has been brought from the island by nearly every naturalist who has collected there, including the late Mr. Bewicke, who obtained it in 1860; and it is worthy of remark that the specimens on which the species was originally

established (in 1775) by Fabricius, and which still exist in the Banksian cabinet, were from St. Helena. This should be carefully borne in mind; for since the insect is supposed to possess a wide geographical range (it being reported from Senegal, Angola, the Cape of Good Hope, Caffraria, Madagascar, the Mauritius, Java, the East Indies, and even Australia), it is far from impossible that it may exhibit a certain number of varieties or states; and if this should prove to be the case, it is interesting to know that the particular form which must of necessity be looked upon as *typical* is the St.-Helena one.

185. *Chilomenes vicina*.

C. subhemisphærica, nitida, minute et leviter punctulata; capite (labro obscuriore excepto) albido-testaceo, epistomate profunde emarginato; prothorace brevi, sublunato, nigro, per marginem anticum anguste sed ad latera late albido-testaceo (maculâ laterali in lineam, fere ad medium disci extensam, intus producto); scutello nigro; elytris rufo-aurantiacis, in limbo angustissime, per suturam anguste, et in lineâ arcuatâ discali (a basi fere ad suturam, mox pone apicem, ductâ) paulo latiore, nigro-ornatis, antennis testaceo-piceis; pedibus testaceis.

Long. corp. lin. 2-2½.

Cheilomenes vicina, Dej., Cat. 459 (1837).

— circumflexa (Klug), Id., *ibid.* (1837).

Cydonia vicina, Muls., *Sécurip.* 440 (1851).

— —, Woll., *Col. Hesp.* 155 (1867).

Chilomenes vicina, Crotch, *Revis. Coccinell.* 180 (1874).

Cydonia vicina, Melliss, *St. Hel.* 159 (1875).

Habitat "in St.-Helena" (sec. Dom. G. R. Crotch); mihi non obvia.

My only evidence for the occurrence of this *Cydonia* is the assurance of the late Mr. G. R. Crotch that he possessed two examples of it which are undoubtedly from St. Helena, they having been received by him along with the *C. lunata*, which is so universal in the island; and although it entirely escaped our united observations during our late visit, and those indeed of Mr. Melliss and other recent collectors, it is nevertheless so likely an insect to be found (ranging as it does from Egypt and Nubia to Senegal and Guinea, and abounding in the Cape-Verde archipelago) that I think Mr. Crotch's statement must be accepted as sufficiently reliable to enable us to admit the species into our catalogue. At the same time, I would wish expressly to

add that I do so with a certain amount of reluctance, though we had so few opportunities of investigating accurately the hot and barren districts above Jamestown and Ladder Hill (amongst the *Cactus*-covered portions of which the *C. vicina* might well be supposed to exist) that there is ample room for suspecting that we by no means exhausted the fauna so completely as to exclude the possibility of a certain number of additions even as conspicuous *primâ facie* as the one now under consideration.

In my remarks on the *C. vicina*, given in the 'Coleoptera Hesperidum,' I mentioned that there was but little fear of confounding it with any thing else there enumerated,—“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 77. THEA.

Mulsant, *Sécurip.* 206 (1851).

186. *Thea variegata*.

T. hemisphærica, nitida, minute et leviter punctulata, læte sulphureo-flava sed nigro-maculata; capite antice et postice maculis duabus parvis obscuris (interdum fere obsoletis) notato; prothorace brevissimo, transverso, antice vix excavato, maculis 5 nigris in disco ornato; scutello nigro; elytris maculis nigris 9, transversim (sc. 2, 3, 3, et 1) positis, interdum subconfluentibus, ornatis; antennis pedibusque testaceis.

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

Coccinella variegata, *Fab., Spec. Ins.* i. 99 (1781).

— *cognata*, *Dej., Cat.* 457 (1837).

— *nassata*, *Erich., in Wieg. Archiv*, ix. 266 (1843).

Thea variegata, *Muls., Sécurip.* 206 (1851).

— —, *Woll., Ann. Nat. Hist.* viii. 408 (1871).

— —, *Crotch, Revis. Coccinell.* 134 (1874).

— —, *Melliss, St. Hel.* 159 (1875).

Habitat regiones intermedias, præcipue in cultis; hinc inde vulgaris.

This pretty little yellow Coccinellid, so well distinguished by the

black spots with which it is ornamented (five of which are situated on the prothoracic disk, and nine on each of the elytra), has probably become naturalized at St. Helena; for since it occurs both at Angola and the Cape of Good Hope, it is far from unlikely that it was introduced originally from the latter along with consignments of plants. At any rate it is abundant now in many cultivated spots of intermediate altitude, such as Plantation,—where we met with it in great profusion. Mr. Melliss states that he reared it from larvæ which were obtained from the grape-vine; and Mr. P. Whitehead has called my attention to the fact that it is more especially attached to the various passion-flowers—a conclusion which is quite in accordance with my own experience, a hedge of the *Passiflora cærulea* at Plantation having been absolutely infested with it. In all probability, however, its presence on any particular plant, or shrub, is mainly dependent upon the number of *Aphides* which may happen to have made their appearance.

Genus 78. **EPILACHNA.**

Chevrolat, *Dict. Univ. d'Hist. Nat.* iv. 43 (1844).

187. **Epilachna chrysomelina.**

E. “coleopteris rufis; punctis duodecim nigris, thorace immaculato. Major. Caput et thorax rubra, immaculata, margine paullo pallidiora. Elytra rufa, punctis sex nigris per paria distributis. Pedes flavicantes.” [Ex Fabricio.]

Coccinella chrysomelina, *Fab.*, *Syst. Ent.* 82 (1775).

— *capensis*, *Thumb.*, *Nov. Ins. Spec.* i. 16, t. 1. f. 21 (1781).

Epilachna chrysomelina, *Muls.*, *Sécurip.* 793 (1851).

— —, *Woll.*, *Ann. Nat. Hist.* v. 30 (1870).

— —, *Crotch*, *Revis. Coccinell.* 71 (1874).

— —, *Melliss*, *St. Hel.* 159 (1875).

Habitat “in ins. St. Helenæ. *Mus. Dom. Banks.*” [Ex Fabricio.]

I can scarcely believe that this widely-spread insect (which occurs not only in Mediterranean latitudes, but also in Persia and Arabia, as well as in Upper Egypt, Senegal, and at the Cape of Good Hope) has at present any claim to be regarded as St.-Helenian; nevertheless, since it was described originally (in 1775) from a professedly St.-Helena example in the collection of the late Sir Joseph Banks, and since its wide African range renders it at least a not improbable member, *à priori*, of the fauna, perhaps we can hardly refuse to

grant it admission into the catalogue, though I must confess that I do so with a very great amount of reluctance. Still it is far from unlikely that it may at some former period have been introduced accidentally into the island, along perhaps with consignments of shrubs and plants (much in the same manner as I have assumed in the case of the East-Indian *Aspidomorpha miliaris*), and so may really have been captured at St. Helena; but, be this as it may, I must record my conviction that at the present time we have no evidence for believing that it continues to exist—though of course it is open to consideration whether some of the dry and arid tracts towards the coast, where the *Cactus opuntia* reigns supreme, and which on account of their extreme sterility have been but imperfectly investigated, may not, sooner or later, be ascertained to harbour it.

Fam. 38. CORYLOPHIDÆ.

Genus 79. SERICODERUS.

Stephens, *Ill. Brit. Ent.* ii. 187 (1829).

188. *Sericoderus lateralis*.

S. minutissimus, quadrato-ovalis, convexus (subtus planatus), infusate testaceus (rarius obscurior), nitidus sed grosse fulvo-cinereo sericatus; capite parvo, oblecto; prothorace lunato, sc. postice lato angulis acute productis, in disco antico sensim infuscato; elytris antice latis, postice truncatis (pygidium haud tegentibus); antennis pedibusque testaceis, illarum clavâ obscuriore.

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

Cossyphus lateralis (Meg.), *Gyll., Ins. Suec.* iv. 516 (1827).

Sericoderus lateralis, *Woll., Col. Atl.* 95 (1865).

— —, *Id., Col. Hesp.* 53 (1867).

— —, *Crotch, in Godm. Azor.* 66 (1870).

Habitat culta hortosque in intermediis insulæ, sub quisquiliis hinc inde congregans.

This minute European species, which through its extreme liability to accidental dissemination has acquired a wide geographical range (occurring in the Azorean, Madeiran, Canarian, and Cape-Verde archipelagos, and which was obtained by the late Mr. Bewicke even at the Cape of Good Hope), abounds in the intermediate districts of St. Helena,—where it is generally to be met with amongst decaying vegetable refuse and beneath cut grass. It swarms at Plantation and in

Thompson's Wood, and will doubtless be found to be universal in most of the cultivated and semicultivated grounds.

The extremely diminutive size and dusky-testaceous hue of the *S. lateralis*, in conjunction with its obtuse, squarish-oval outline, its convex upper portion, which is densely clothed with a fine decumbent silken pubescence, its concealed head, its broad lunate prothorax (the hinder angles of which are acutely produced), and its shortened or truncated elytra, which leave the pygidium partially exposed, will sufficiently distinguish it from every thing else with which we have here to do.

Genus 80. ORTHOPERUS.

Stephens, *Ill. Brit. Ent.* ii. 186 (1829).

189. *Orthoperus atomarius*.

O. minutissimus, breviter rotundato-ovalis, arcuato-convexus, piceo-testaceus aut testaceo-castaneus, nitidus, calvus, et (oculo fortissime armato) minutissime sed haud dense punctulatus; capite subtriangulari, oculis magnis; prothorace (subsemicirculari) postice elytrisque antice latitudine æqualibus; elytris haud striatis; antennis (brevibus) pedibusque pallido-testaceis, illarum clavâ picescentiore.

Long. corp. lin. $\frac{1}{4}$.

Pithophilus atomarius, Heer, *Fna Col. Helv.* 433 (1841).

Orthoperus atomarius, Woll., *Cat. Mad. Col.* 145. f. 3 (1857).

— —, Duval, *Gen. des Col. d'Eur.* ii. 236, t. 57. f. 283 (1859).

— —, Woll., *Col. Atl.* 93 (1865).

Habitat in cultis intermediis; inter quisquilias rarissimus.

This extremely minute beetle is, next to the *Ptinella Matthewsiana*, the smallest of the St.-Helena Coleoptera which has hitherto been detected; and there can be little doubt it has become naturalized accidentally in the island, perhaps along with consignments of plants, from more northern latitudes. It is, however, so far at least as I can judge from my own limited experience, exceedingly rare; though perhaps it might more properly be said that its diminutive bulk has, in all probability, caused it to escape observation. At any rate I have seen but three examples of it, all of which were captured by myself,—two by sifting rubbish at Thompson's Wood, and one at Plantation.

Apart from its minute size and shortly-oval (well-nigh hemispheric) outline, the *O. atomarius* (which occurs also in the Madeiran

group) may be recognized by its shining piceo-testaceous or yellowish-castaneous surface (the small punctules of which are scarcely distinguishable except beneath a microscope), and by its pallid limbs,—the club only of its somewhat abbreviated antennæ being slightly picescent. As in the *Orthoperi* generally, its prothorax and elytra are of precisely the same breadth at their respective bases, and the latter are free from striæ.

Fam. 39. EROTYLIDÆ.

Genus 81. EUXESTUS.

Wollaston, *Ann. Nat. Hist.* ii. 411 (1858).

The present genus possesses a certain geographical interest, from its having been detected hitherto only in Madeira,—whence it was described by myself, from examples which had been found within the nests of ants, in 1858. The St.-Helena representative, moreover, becomes still further important from its enabling me to correct the diagnosis of the Madeiran one as regards the precise number of the antennal joints,—the intermediate ones of which are so extremely obscure and so closely compacted together as to have left both Professor Westwood and myself in considerable doubt concerning them. It was this uncertainty that induced me to record only “four” between the elongated third one and the club, instead of six; but the species enunciated below has so unmistakably the latter that I have been at some pains to submit the *E. Parkii* of Madeira to a fresh and more rigid examination, and have in consequence quite satisfied myself, now that additional light has been thrown upon it by the *E. phalacroides*, that the antennæ of it also are 10-articulate (and not 8-),—the *extremely solid club*, although composed practically of a single joint, having the last (or eleventh) one immersed and obsolete. Although in the Madeiran group it is by no means peculiarly associated with ants (the *E. Parkii* being often abundant in ordinary garden-refuse), I would nevertheless remark not only that the genus as hitherto observed at St. Helena is exclusively formicophilous, as regards its *modus vivendi*, but that it lives in the society of the *very same species* (the *Æcophthora pusilla*, Heer) with which, when residing with the ants at all, it occurs at Madeira.

190. *Euxestus phalacroides*, n. sp.

E. oblongo-ovalis aut ellipticus, convexus (subtus planatus), nitidissimus, calvus, ubique minute et leviter punctulatus; capite prothoraceque nigro-castaneis, hinc transverso, postice lato (elytrorum latitudine) et per basin trisinuato; elytris castaneis (immaturis fere ferrugineis), in disco transversim subobscurioribus, quare versus apicem gradatim clarioribus et interdum quasi subbimaculatis, obsoletissime vix substriatis; antennis brevibus, crassis, abrupte clavatis, pedibusque (compressis) piceo-testaceis.

Long. corp. lin. $1-1\frac{1}{4}$.

Habitat formicarum nidos; in horto publico ad Jamestown, in trunco quodam Palmæ emortuo prolapso, copiosissime captus.

The only spot in which this most interesting *Phalacrus*-like insect has hitherto been observed (so far at least as I am aware) is the Castle-garden at Jamestown,—where it was taken in profusion by myself, and subsequently by Mr. Gray, in company with the common house-ant (*Ecophthora pusilla*), within the dead and fibrous stem of an old felled palm. Its convex, elliptical, highly polished, unpubescent, minutely punctulated surface, added to its rich castaneous hue (the elytra being generally a little paler, and with a tendency to be so far diluted towards their apex as *occasionally* to appear well-nigh bimaculate), its short, thick, abruptly clavate antennæ, and its testaceous, compressed legs, will sufficiently characterize it.

From the Madeiran *E. Parkii* the present *Euxestus* differs in being a little larger and more oblong, in its antennæ (particularly as regards the third joint) being appreciably longer, and in its surface being not only more densely and distinctly punctulated, but also (especially the head and prothorax, the central region of the elytra, and sometimes the club of the antennæ) darker or more infusate.

Sectio 12. HETEROMERA.

Fam. 40. OPATRIDÆ.

Genus 82. OPATRUM.

Fabricius, *Syst. Ent.* 76 (1775).

191. *Opatrum hadroides*.

O. parallelo-oblongum, latiusculum, valde alatum, nigrum, opacum,

ubique granulato-rugulosum et setulis brevibus demissis fulvescentibus vestitum; capite lato, ad latera ante oculos subangulatim exstante; prothorace brevi, ad latera subæqualiter leviter rotundato, antice late emarginato, postice trisinuato, angulis posticis acutiusculis ac leviter productis; scutello subdeclivi, nitidiusculo; elytris parallelis (ad humeros incrassatos rectangulis), subpunctato-striatis, interstitiis convexiusculis; antennis pedibusque (setosis) concoloribus, unguiculis solum piceo-testaceis.

Long. corp. lin. 4-4½.

Opatrum hadroides, Woll., *Journ. of Ent.* i. 215 (1861).

— —, *Id.*, *Ann. Nat. Hist.* v. 30 (1870).

Hopatrum hadroides, Melliss, *St. Hel.* 160 (1875).

Habitat ab orâ maritimâ fere ad cacumina montium; sub lapidibus, præcipue in aridis cultisque apricis, vulgaris.

The present *Opatrum*, which belongs to the *winged* section of the genus (or *Gonocephalum*, Solier), is a most universal insect at St. Helena,—occurring beneath stones, more or less abundantly, from the sea-level to the central ridge; nevertheless it is decidedly more common in hot and arid spots of a rather low altitude than elsewhere. About Jamestown it often swarms; and I have seen it in considerable profusion at Plantation and West Lodge, as well as on the slopes of Flagstaff Hill; and it was brought by Colonel Warren from the Barn, where it attains a slightly larger size than in most other districts. Mr. Melliss mentions that he has frequently observed it in great profusion on ploughed fields at Longwood, and in potato-grounds; though I cannot agree with him that it is “of all the Coleoptera in the island the most plentiful.”

The winged *Opatra* are generally moulded so much on the same pattern that it requires a careful examination to separate the species from each other; nevertheless, after comparing it accurately with various closely allied forms from the Cape-Verde, Canarian, and Madeiran archipelagos, I am satisfied that the *O. hadroides* is perfectly distinct from all of them. It is perhaps more nearly akin to a species which was taken by the late Mr. Bewicke (in 1860) at the Cape of Good Hope; and since it seems to me, unless indeed I am much mistaken, to be absolutely identical with another which was met with by Mr. Gray, rather abundantly, during his late visit to that same locality, I cannot but feel it probable that it will turn out, sooner or later, to have been well known and described, previous to my publication of it (under the name of *O. hadroides*) in 1861.

Genus 83. **HADRODES** (nov. gen.).

Corpus oblongo-ovale, minute setulosum; *clypeo* antice late emarginato; *prothorace* transverso, ad latera æqualiter subrotundato et explanate subrecurvo, basi profunde trisinuato, angulis anticis et posticis acutiuscule productis; *scutello* brevissimo, valde transverso, declivi; *elytris* longitudinaliter tuberculato-inæqualibus; *prosterno* subcarinato, inter coxas anticas lobo brevissimo obtusissimo terminato. *Antennæ* longiusculæ, apicem versus gradatim leviter incrassatæ, art^o 3^{tio} paululum elongato. *Labrum* subquadratum, antice fere integrum, angulis anticis obtuse rotundatis ac longe ciliatis. *Mandibulæ* breves, triangulares, incrassatæ, supra transversim strigosæ, apice breviter acutæ, intus infra apicem denticulo minuto armatæ. *Maxillæ* bilobæ, lobis apice pubescentibus; *externo* paulum longiore sed vix latiore, apice acutiusculo. *Palpi maxillares* 4-articulati, art^o 1^{mo} parvo angusto flexuoso, 2^{do} multo majore crassiore elongato, 3^{tio} quam hic brevior (sed haud crassior) obtriangulari, ult^{mo} maximo securiformi; *labiales* 3-articulati, art^o 1^{mo} parvo, 2^{do} paulum majore, ult^{mo} magno incrassato ovali apice suboblique truncato. *Mentum* transverso-quadratum, antice latissime sed leviter emarginatum (lobo medio brevissimo obtusissimo rotundato), angulis anticis acutissimis. *Ligula* subcordato-quadrata, antice fere integra, angulis anticis rotundatis ac longe pilosis. *Pedes* longiusculi, subgraciles; *tibiis anticis* paululum latioribus et ad apicem externum in angulum breviter productis, extus minute spinulosi; *tarsis* art^o 1^{mo} in *anterioribus* nullo modo, et etiam in *posticis* vix, elongato.

Ab *Hadrus*, et *eîdos*, aspectus.

Obs.—Genus *Hadro* (insularum Maderensium) affinis; sed *corpore* multo minore, *clypeo* minus profunde excavato, *labro* antice integro, *scutello* multo brevior transverso declivi, *elytris* tuberculato-inæqualibus, *prosternali lobo* brevior, *antennarum art^o 3^{tio}* necnon *tarsorum posticorum art^o 1^{mo}* multo minus elongatis, *tibiisque* (præsertim *anticis*) ad apicem externum magis angulatis (nec oblique truncatis) conspicue differt.

With the exception of the *Opatrum hadroides*, the *Mordella Mellissiana*, and the two species of *Anthicodes*, the present insect and the following one are the only truly indigenous exponents of the *Heteromera* which have hitherto been detected at St. Helena; and there can be no question whatsoever that they are both of them aboriginal members of the fauna. They seem to belong to the *Opatridæ*, and to occur (though very sparingly) in the elevated parts of the island.

In its general contour and aspect, the genus *Hadrodes* has a good

deal in common with *Hadrus* of the Madeiran archipelago ; nevertheless its type is very much smaller, and has the elytra (instead of being comparatively unsculptured) coarsely-sulcate and tuberculose ; its upper lip is entire in front ; its clypeus is less deeply excavated ; the last joint of its maxillary palpi is less broadly securiform ; the lobe of its prosternum is shorter ; its scutellum is much narrower, or more abbreviated,—being extremely *thin*, transverse, and tilted ; the third articulation of its antennæ and the basal one of its hinder feet are *conspicuously* less elongate ; and its tibiæ (particularly the anterior pair) are more angulated at their outer apex,—not being obliquely lopped off as in that group.

192. *Hadrodes helenensis*, n. sp.

H. oblongo-ovalis, convexus, opacus, niger aut piceo-niger setulisque brevissimis erectis brunneis obsitus, necnon sæpius quasi luto plus minus tectus ; capite minute et parce granulato, genis (ante oculos) rotundate vix exstantibus ; prothorace transverso, ad latera æqualiter subrotundato et late explanato-subrecurvo, confuse punctato ; elytris grosse subcrenato- (aut subpunctato-) sulcatis, interstitiis obtuse convexis, alternis interruptis nodulos obtusos inæquales efficientibus, ad humeros noduloso-exstantibus ; antennis piceo-ferrugineis ; pedibus piceis.

Long. corp. lin. 3-3½.

Habitat in subelevatis insulæ, rarissimus sed tamen valde gregarius ; sub lapide quodam magno in præruptis supra West Lodge semel tantum, tamen copiose (sc. exemplaria 33), collegi.

Apparently extremely scarce, and occurring at a high altitude. Indeed it was only once that I captured it ; and yet, so gregarious is it in its mode of life, that I secured no less than 33 examples from beneath a single stone. It was at the extreme edge of the tremendous precipice immediately above West Lodge, overlooking the great Sandy-Bay crater, that I obtained them ; and although we frequently revisited the same spot, and searched in the immediate vicinity, I was never able to meet with so much as another specimen.

Genus 84. **TARPHIOPHASIS** (nov. gen.).

Genus præcedenti subsimilis, sed *corpore* minore et magis inæquali (sc. in elytris multo grossius sculpturato et tuberculato, necnon etiam in prothorace conspicue inæquali) ; *capite* postice tuberculo centrali armato, *genisque* (ante oculos) magis elevatis necnon

magis angulatim exstantibus; *palporum maxillarium art^o ult^{mo}* minus late securiformi, *lobis maxillaribus* sublatioribus ac valde pubescentibus; *mento* paulum minus quadrato (sc. postice sensim subangustiore); *prothorace* mox intra angulos (anticos et posticos) multo profundius excavato; *abdominis segm^{tis} 1^{mo} et 2^{do}* inter se arctissime connatis (nec lineâ profundâ divisis); *antennis pedibusque* (præsertim *tarsis posticis*) multo brevioribus.

A *Tarphius*, et *φάσις*, facies.

As already mentioned, the extremely rare Heteromerous insect from which the above generic diagnosis has been compiled has something in common with *Hadrodes*, though at the same time manifestly distinct from it even structurally. Thus it is not only very much smaller and more roughly and coarsely sculptured, but its head is armed with a central tubercle behind and has the genæ considerably more *prominent*, elevated, and angularly developed; its prothorax is grooved and uneven on the disk, and is *much* more deeply scooped out within the anterior and posterior angles; its abdomen has the first and second joints completely soldered together (instead of being divided by a strongly indented line); and its antennæ and legs, especially the two posterior feet, are conspicuously more abbreviated. Its entire surface is so densely coated with brownish scales as completely to conceal the scutellum, and *almost* the sculpture; its body is less convex and more shortly oblong than in the *Hadrodes helenensis*; and the tubercles of its elytra are greatly enlarged, elevated, and numerous.

193. *Tarphiophasis tuberculatus*, n. sp.

T. breviter et obtuse oblongus, opacus, nigro-fuscus, dense brunneo-squamosus setulisque brevissimis suberectis cinereo-brunneis vestitus; capite inæquali (sc. utrinque ad genas, mox ante oculos subangulatim valde exstantes, subito elevato, necnon postice in medio tuberculo minore instructo); *prothorace* mox intra angulos valde profunde excavato (quare, antice et postice, in medio distincte lobato), ad latera æqualiter subrotundato et late explanato-recurvo, in disco inæquali (sc. antice canaliculato, et postice canaliculâ et costâ quasi figuræ V notato); scutello haud visibili (squamis obtecto); elytris grossissime et profunde sulcato-punctatis (punctis magnis) et ubique tuberculis magnis obtusis valde exstantibus (præsertim postice et ad humeros) rugatis; antennis pedibusque breviusculis, illis piceo-ferrugineis, his piceis.

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

Habitat in locis subeditioribus, rarissimus ; juxta West Lodge a meipso parcissime repertus.

The only two examples of this coarsely tuberculated, *Tarphius*-like insect which I have seen were captured by myself beneath pieces of rotten wood in the *Aster*-grove beyond West Lodge and overlooking Lufkins ; and there can be no doubt that the species is amongst the rarest of the St.-Helena Coleoptera.

Fam. 41. ULOMIDÆ.

Genus 85. ALPHITOBIUS.

Stephens, *Ill. Brit. Ent.* v. 11 (1832).

194. *Alphitobius diaperinus*.

A. oblongus, latiusculus, depressiusculus, nitidus, piceo-niger, calvus ; capite prothoraceque vix dense punctatis, hâc breviusculo, transverso, basi profunde trisinuato, ad latera rectiusculo et anguste marginato ; scutello parce punctato ; elytris striato-punctatis, interstitiis parce punctulatis ; antennis pedibusque piceis, his parce spinulosis.

Long. corp. lin. circa 3.

Tenebrio diaperinus, Kugel., in Pnz. Fna Ins. Germ. 37. 16 (1797).

Alphitobius diaperinus, Woll., Col. Atl. 419 (1865).

— —, *Id., Col. Hesp.* 208 (1867).

— —, *Id., Ann. Nat. Hist.* v. 31 (1870).

— —, *Melliss, St. Hel.* 160 (1875).

Habitat in domibus repositoriisque insulæ ; certe ex alienis introductus.

The widely-spread *A. diaperinus* would seem to have established itself at St. Helena as completely as it has done in most other countries of the civilized world,—occurring about houses, and amongst farinaceous substances, principally in Jamestown. It has in like manner become naturalized in the Madeiras, Canaries, Cape-Verdes, and at Ascension ; but I need scarcely add that it is utterly without significance as a member of any particular fauna,—its presence being merely due to indirect human agencies.

195. *Alphitobius piceus*.

A. oblongus, angustulus, convexiusculus, subopacus, piceo-niger, calvus ; capite prothoraceque dense punctatis, hâc brevi, trans-

verso, basi trisinuato et utrinque evidenter impresso, ad latera subrotundato et distinctius marginato; scutello dense punctulato; elytris leviter striato-punctatis, interstitiis sat dense et subconfuse punctulatis, ad humeros denticulo minutissimo armatis; antennis pedibusque piceis, tibiis subangustioribus ac paululum minus spinulosis.

Long. corp. lin. circa 3.

Tenebrio mauritanicus, *Fab.* [nec *L.*, 1767], *Ent. Syst.* i. 113 (1792).

Helops piceus, *Oliv.*, *Ent.* iii. 58. 17. 32 (1795).

Tenebrio fagi, *Panz.*, *Fna Ins. Germ.* 61. 3 (1799).

Alphitobius piceus, *Woll.*, *Col. Atl.* 419 (1865).

— —, *Id.*, *Col. Hesp.* 208 (1867).

— —, *Id.*, *Ann. Nat. Hist.* v. 32 (1870).

— —, *Melliss.*, *St. Hel.* 161 (1875).

Habitat in locis similibus ac præcedens; sed etiam sub lapidibus in hortis interdum occurrit.

Likewise an imported insect into St. Helena, and one which has no kind of connexion with the true fauna of the island; nevertheless it appears to be pretty common about bakehouses and stores, and indeed in houses generally,—my own examples being principally from Jamestown. It differs from the *diaperinus* in being a little smaller, narrower, less shining, and a trifle more convex; in its prothorax (which is more distinctly margined at the sides and base) being relatively somewhat shorter, more rounded at the lateral edges, and more thickly punctured, as well as obsoletely marked on either side behind with an obscure fovea; in its scutellum being more densely and finely punctulated; in its elytra being armed with an extremely minute point, or denticle, at the humeral angles, with their striæ still more lightly impressed, and the punctures of their interstices both more numerous and more confused; and in its tibiæ being conspicuously slenderer and rather less spinulose.

The *A. piceus* has established itself equally in the Azores, Madeiras, Canaries, Cape-Verdes, and at Ascension,—in which last-mentioned island it was found abundantly, in company with the *A. diaperinus*, by the late Mr. Bewicke, *not*, however, about houses and amongst farinaceous substances (as we should have anticipated), but “in the dung of sea-birds, miles from habitable parts;” a *modus vivendi* which must be admitted to be somewhat singular for these common and well-nigh cosmopolitan insects to have assumed. I believe, however, that, like many of these allied forms, it will attach itself, when pressed for food, to almost any thing. Thus in Madeira it often swarms amongst decaying garden-refuse.

Genus 86. **GNATHOCERUS.**Thunberg, *Act. Holmiens.* 47 (1814).196. **Gnathocerus cornutus.**

G. parallelo-oblongus, subcylindricus, angustulus, subnitidus, clare rufo-ferrugineus, calvus; capite prothoraceque minute et dense punctulatis, clypeo ad latera explanato, subrecurvo, hinc transverso-subquadrato sed antice conspicue latiore, convexo, basi recte truncato et utrinque foveolâ minutâ obscurâ punctiformi impresso; elytris parallelis, leviter striato-punctatis, interstitiis minutissime parceque punctulatis; antennis pedibusque paulo clarioribus, illis (in utroque sexu) a basi usque ad apicem gradatim incrassatis, tarsis elongatis.

Mas fronte breviter bicornutâ, clypeo antice profunde trisinuato necnon ad latera latius explanato magisque recurvo, mandibulis magnis, porrectis, superne curvatis.

Long. corp. lin. $1\frac{1}{2}$ –2.

Trogosita cornuta, *Fab., Ent. Syst. (Suppl.)* 51 (1798).

Cerandria cornuta, *Woll., Ins. Mad.* 490 (1854).

Gnathocerus cornutus, *Id., Col. Atl.* 420 (1865).

— —, *Id., Col. Hesp.* 204 (1867).

— —, *Id., Ann. Nat. Hist.* v. 32 (1870).

— —, *Melliss, St. Hel.* 161 (1875).

Habitat in domibus officinisque pistoriis, præcipue inter farinas et panicea; proculdubio introductus.

The almost cosmopolitan *G. cornutus*, so remarkable for the horn-like developments of its male sex (which has two small triangular processes on the forehead, a more laterally-recurved and anteriorly-sinuated clypeus, and the mandibles not only enlarged and porrecte but somewhat *upwardly* bent), has established itself in the houses and bakehouses of St. Helena, as is the case in so many parts of the civilized world,—occurring more particularly amongst flour, and being often found baked accidentally in loaves of bread. My examples are chiefly from Woodcot, where they were taken by Mr. P. Whitehead; but the species has, of course, no connexion with the true fauna of the island. It has become naturalized in like manner in the Madeiras, Canaries, Cape-Verdes, and at Ascension.

Genus 87. **TRIBOLIUM.**MacLeay, *Annul. Javan.* 47 (1825).197. **Tribolium ferrugineum.**

T. parallelo-elongatum, angustum, subopacum (saltem in ♀), obscure

ferrugineum, calvum ; capite prothoraceque dense punctulatis, clypeo in ♀ subsimplici, hōc brevi, transverso-quadrato, basi subrecte truncato et utrinque intra angulos posticos obsolete foveolato ; elytris parallelis, elongatis, tenuiter costulato-striatis (costulis versus suturam obsoletis) et ubique minute punctulatis ; antennis pedibusque piceo-ferrugineis, illis brevibus (art^{is} 3 ulterioribus in ♀ clavam efformantibus), tibiis anticis subtriangulariter dilatatis.

Mas sensim clarior, minusque opacus ; clypeo antice evidentius emarginato necnon ad latera paulum latius explanato-recurvo, mox ante oculos magis angulatim exstante ; prothorace postice paululum subangustato ; antennis gradatim incrassatis (nec clavatis).

Long. corp. lin. $1\frac{2}{3}$ –2.

Tenebrio ferrugineus, *Fab.*, *Spec. Ins.* i. 324 (1781).

Tribolium ferrugineum, *Woll.*, *Col. Atl.* 402 (1865).

— —, *Id.*, *Col. Hesp.* 204 (1867).

— —, *Id.*, *Ann. Nat. Hist.* v. 33 (1870).

— —, *Melliss.* *St. Hel.* 161 (1875).

Habitat in locis similibus ac præcedens ; in insulam certe invectum.

Found under much the same circumstances as the *Gnathocerus cornutus* and the *Alphitobii*, and equally an introduced species through the medium of commerce. It is perhaps the most strictly cosmopolitan of them all, there being scarcely a civilized country in which it has not become more or less naturalized. I met with it amongst loaves of bread at Plantation ; but it doubtless only requires to be searched for in the proper places to be obtained in abundance. It has been introduced equally into the Azorean, Madeiran, Canarian, and Cape-Verde groups.

Although in size and colour somewhat similar to that species, it is impossible to confound the present insect with the *Gnathocerus cornutus* ; for, in addition to the sexes being (externally) comparatively alike, or with less conspicuous male developements about the head, it is narrower, more opaque (particularly the females), and a little darker in hue ; its prothorax is shorter, *not* widened anteriorly (though in the *male* sex just appreciably narrowed behind), and more coarsely punctulated ; its elytra (instead of being punctate-striate) are simply marked (in addition to the interstitial punctures) with a few minute thread-like costæ, which however are evanescent towards the suture ; its antennæ are very much more abbreviated, and *dissimilar in the sexes*,—the *female* ones (instead of being gradually thickened from the base to the apex) having their last three

joints formed into a distinct club; its two front tibiæ are more triangularly dilated, and its feet are less elongate*.

Fam. 42. TENEBRIONIDÆ.

Genus 88. TENEBRIO.

Linnæus, *Syst. Nat.* edit. vi. (1748).

198. *Tenebrio obscurus*.

T. parallelus, angustus, elongatus, niger, fere opacus, ubique densissime ruguloso-punctatulus, calvus; genis (ante oculos) rotundatis, obtusis, vix exstantibus; prothorace transverso, convexo, angulis ipsis posticis acutiusculis, ad latera subæqualiter rotundato, basi in medio lineâ elevatâ subduplicatâ (utrinque foveolâ terminatâ) instructo; scutello magno, pentagono; elytris levissime striatis, interstitiis obtuse paululum elevatis; antennis pedibusque vix picescentioribus, tibiis anticis (præsertim in ♂) sensim curvatis. Long. corp. lin. 7-8½.

Tenebrio obscurus, *Fab., Ent. Syst.* i. 111 (1792).

— — —, *Woll., Col. Atl.* 424 (1865).

— — —, *Id., Ann. Nat. Hist.* v. 33 (1870).

— — —, *Crotch, in Godm. Azor.* 86 (1870).

— — —, *Melliss, St. Hel.* 161 (1875).

Habitat in domibus, stabulis, officinisque pistoriis, passim; proculdubio introductus.

The European *T. obscurus*, which has acquired for itself so wide a geographical range through the medium of commerce (and which has become completely established in the Azorean, Madeiran, and Canarian groups, as well as at Ascension), does not seem to be very abundant at St. Helena,—though perhaps sufficiently common if searched for in the proper localities. It occurred occasionally at Plantation; and Mr. P. Whitehead obtained it for me at Woodcot,—

* In my 'Catalogue of Canarian Coleoptera,' published by the Trustees of the British Museum in 1864, I drew attention to the fact (*vide* p. 496) that in every diagnosis to which I had had access the sexes of *Tribolium* are regarded as perfectly similar (externally) *inter se*. It appears to me, however, that there is a very decided difference between them,—the *males* being not only less opaque (and perhaps of a slightly clearer hue), but with their clypeus more evidently scooped out in front and more expanded (and recurved) at the sides (the *genæ*, immediately in front of either eye, being more angular and prominent); added to which, their prothorax is just appreciably narrowed behind, and (which is the most important of all) their antennæ, instead of having a perceptibly 3-articulated club, are regularly and evenly thickened from the base to the apex. I think there can be no question that these discrepancies are *sexual* ones, and are by no means indicative of a separate but closely-allied species.

its usual *habitat* being, as elsewhere, about houses and bakehouses, amongst farinaceous substances and in granaries. Mr. Melliss mentions that he met with it amongst straw in stables,—a *modus vivendi* which is in keeping with its frequent presence, in the Canarian and Madeiran archipelagos, beneath the refuse which has accumulated around the base of corn-stacks.

At Ascension large numbers of this *Tenebrio* (which are called by the inhabitants “hardbacks”) were stated by the late Mr. Bewicke to make their appearance annually about the season of the Turtle; but it is in the open country, quite as much as about the houses, that they were said to swarm.

Genus 89. ZOPHOBAS.

(Dejean) Blanch., *Hist. Nat. des Ins.* ii. 15 (1840).

199. *Zophobas concolor*.

Z. angustulus, elongatus, postice paulum attenuatus, niger, nitidulus sed hinc inde quasi nebulose opacior, calvus; capite antice parce, postice parcissime punctato, genis (ante oculos) rotundatis, obtusis, haud exstantibus, clypeo mox intra angulos anticos foveolâ minutâ impresso; prothorace (elytris angustiore) transverso, antice rotundato, postice angustiore, subconvexo, punctis perpauca in disco irrorato, angulis anticis obtusis, rotundatis, posticis subproducte acutiusculis, basi in medio lineâ crassâ elevatâ obtusâ (antice impressione, et utrinque foveolâ minutâ, terminatâ) instructo; scutello subsemicirculari; elytris postice gradatim attenuatis, grosse punctato-sulcatis, interstitiis obtuse elevatis; antennis pedibusque elongatis, crassis, concoloribus, in utroque sexu similibus.

Mas clypeo antice profunde excavato-emarginato, tibiis anticis omnino calvis, posterioribus intus versus apicem breviter fulvo-pubescentibus.

Fcem. clypeo antice recte truncato, tibiis omnibus intus versus apicem breviter fulvo-pubescentibus.

Long. corp. lin. $9\frac{1}{2}$ –10.

Zophobas concolor, Woll., *Ann. Nat. Hist.* v. 33 (1870).

— —, Melliss, *St. Hel.* 162 (1875).

Habitat circa domos et in hortis, ad Jamestown; minus frequens.

Whether this large and uniformly black Tenebrionid, which I have but little doubt has been naturalized at St. Helena, was already described, previous to my enunciation of it in 1869, I will not undertake to say; but, as I then mentioned, it might possibly agree with Fabricius's *Helops morio* from the West Indies and Equatorial

America,—though the sexual peculiarities did not appear to me to tally with what I was able to gather elsewhere concerning those of that insect. Be this, however, as it may, the *Z. concolor* (which in the male sex has its clypeus deeply scooped out and its front tibiæ perfectly bald; whilst in the female one the clypeus is straightly truncate and *all* the tibiæ are, like the posterior four of the opposite sex, minutely fulvo-pubescent towards their inner apex) may be known by its thick and robust elytra (which are wider at the base than the prothorax) being gradually attenuated posteriorly and very coarsely punctate-sulcate, by its prothorax (which is slightly rounded in front and narrowed behind) having only an extremely few large and scattered punctures on the disk, and a transverse impression in the centre of its base, and by its limbs (which are alike in both sexes) being elongate and thickened. Its surface is rather shining, but at the same time more or less *dulled* or beclouded in parts (especially towards the sides and behind) with a kind of *bloom*,—much in the same manner as one observes in some of the Hegeters; and its clypeus has a small fovea (strongest in the female sex) on either side in front, immediately within the anterior angles.

It is only in Jamestown (beneath the felled trunk of an old palm in the Castle garden) that I observed this large and robust Tenebrionid; and it was likewise procured for me by the Rev. H. Whitehead in Jamestown, where it was also taken (though sparingly) by Mr. Melliss.

Fam. 43. MORDELLIDÆ.

Genus 90. MORDELLA.

Linnæus, *Syst. Nat.* edit. i. 420 (1758).

200. *Mordella Mellissiana*.

M. angusto-elliptica, supra arcuata, brunnea (interdum rufo-brunnea), subnitida sed pube brevi valde demissâ fulvescente dense sericata; capite deflexo, subsemicirculari, oculis magnis sed demissis; prothorace basi lato et trisinuato; elytris postice regulariter attenuatis, suturâ postice subcarinulatâ, apice singulatim rotundatis, pygidium (in mucronem elongatum productum) haud tegentibus, nullo modo striatis; antennis, palpis, pedibusque anterioribus (elongatis, gracilibus) plus minus picescenti-testaceis, pedibus posticis subtestaceo-piceis.

Long. corp. lin. 2–vix 3.

Mordella Mellissiana, Woll., *Ann. Nat. Hist.* v. 35 (1870).

— —, *Melliss*, *St. Hel.* 162 (1875).

Habitat in intermediis, locisque subelevatis insulæ, rarior; nisi fallor, *Commidendro robusto*, DC., (anglice "Gumwood") præcipue propria.

This large and dark-brown *Mordella*, which is densely sericated with a decumbent fulvescent pubescence (usually of a slight golden lustre), is, on the whole, rather scarce, though widely spread over the intermediate districts of the island. I strongly suspect that it belonged originally to the gumwood fauna, now so rapidly disappearing, though perhaps attached likewise, less abundantly, to the arborescent asters; at any rate I have taken it amongst the old gumwoods in Peak Gut and Thompson's Wood, and about the *Aster gummiferus* above West Lodge; whilst its occurrence, sparingly, at Plantation and Oakbank, which must once have abounded with gumwoods, is quite in accordance with this hypothesis.

Its convex *arcuated* upper surface and the powerful spine into which the apex of its abdomen is produced, added to its curious capacity for *skipping*, or somewhat clumsily hopping, although mere *generic* characters of *Mordella*, will at once serve to distinguish the *M. Mellissiana* from every thing else with which we are here concerned.

Fam. 44. ANTHICIDÆ.

Genus 91. ANTHICODES (nov. gen.).

Genus *Anthico*, Payk., affinis, sed capite majore, prothorace magno, lato, subquadrato (nec postice angustato, constricto), scutello alisque obsoletis, tarsisque minus gracilibus.

Ab *Anthicus*, et *είδος*, aspectus.

The members of this curious genus, which I have enunciated below, cannot, I think, by any possibility be admitted into *Anthicus* proper; nor indeed do they appear to be embraced by any of the few nearly-allied groups which have hitherto been established. They differ from the *Anthici* mainly in their larger head and in their *very* much larger, broader, more robust, and *quadrate* prothorax (which has no tendency whatever to be constricted posteriorly, but is quite as broad behind as it is in front), in their wings and scutellum being obsolete, and in their feet being less slender. The two

species which have hitherto been brought to light, and which were detected by myself, are essentially inhabitants of the loftier regions, though not ascending perhaps into the loftiest of all,—the portion of the central ridge from High Peak to West Lodge, and the summit of Flagstaff Hill being the districts in which I have myself observed them. I may just add that I *believe* a third exponent, smaller and nearly black, was found by Mrs. Wollaston at Cason's; but as I unfortunately lost it before I had had time to examine it critically, I would desire to speak somewhat cautiously on that particular point.

201. *Anthicodes maculatus*, n. sp.

A. elongato-ovalis, pube griseâ omnino demissâ vestitus; capite prothoraceque minute et densissime rugulosis, fere opacis, illo magno subquadrato (postice recte truncato), oculis (longissimè a basi capitis sitis) parvis sed prominulis; elytris (ad basin ipsam latitudine prothoracis) ovalibus, convexis, vix nitidioribus minusque rugulosis, haud striatis sed maculis duabus obscuris (unâ sc. magnâ humerali subobliquâ, quasi e 3, et alterâ minore in disco postico, quasi e 2, confluentibus, compositis) utrinque ferrugineo-ornatis; antennis, palpis, pedibusque plus minus piceo-testaceis.

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

Habitat in regionibus insulæ parum elevatis, ligno ramulisque fractis desiccatis humi jacentibus adhærens.

The first spot in which I met with this robust and singular Anthicid is the *Aster*-grove beyond West Lodge, on the inner slope of the great Sandy-Bay crater and overlooking Lufkins; and it was not until after the early summer rains, about the end of January, that it began to make its appearance more abundantly. At that time, however, it was found by Mrs. Wollaston and myself in comparative profusion,—at the edge of the tremendous precipice immediately above West Lodge, adhering to small pieces of stick which were lying on the exposed rocky soil, as well as on the only available portion of the almost inaccessible ground behind High Peak.

In addition to its generic characters, of enlarged head and *quadrate* prothorax, the *A. maculatus* may be known by its oval and convex elytra (which at their extreme base are of about the same breadth as the prothorax) being each of them ornamented with two obscure ferruginous patches,—one of which is somewhat oblique and humeral, and composed as it were of *three* which are confluent, whilst the other is smaller and on the hinder disk, and appears to

be made up of *two*. Its entire body is clothed with a decumbent griseous pubescence; its surface, at any rate of the head and prothorax, is nearly opaque and minutely and densely rugulose; and its eyes, which are rather small but prominent, are placed at a great distance from the base of the head.

202. *Anthicodes fragilis*, n. sp.

A. præcedenti similis, sed minus niger et concolor (elytris sc. nullo modo maculatis, solum per suturam interdum anguste dilutioribus), paululum minus opacus, et ubique dense cinereo- (nec parcius griseo-) sericatus; capite basi sensim minus recte truncato, oculis paulum majoribus; antennis pedibusque sublongioribus, fragilibus, pallidioribus, illarum art^o ult^{mo} sensim minus abbreviato.

Long. corp. lin. $1\frac{1}{3}$ – $2\frac{1}{4}$.

Habitat in intermediis et locis parum elevatis, sub lapidibus in aridis ventosis hinc inde congregans.

This very distinct *Anthicodes* was detected by myself and Mrs. Wollaston, on the 10th of February, 1876, beneath stones on the *extreme* summit of Flagstaff Hill,—one of the most exposed and windy spots it is possible to imagine; and one can but marvel how an insect which is so eminently fragile (its limbs being so liable to be cast off that if kept for more than a few hours in the laurel-bottle it is most difficult to ensure even a single perfect example) should be able to exist in a locality so uniformly boisterous. It was, however, met with a few months later, and after we had left the island, by Mr. P. Whitehead,—who obtained several specimens of it at a somewhat lower altitude but in the same direction, namely in Sane Valley (at no great distance from Napoleon's Tomb).

Although descending to a rather smaller size, the *A. fragilis* in its general outline and structure closely resembles the last species. Its elytra, however, are completely without spots (the suture alone being *occasionally* a little diluted in hue); and its entire surface is less black and more densely sericated with a *whiter* decumbent pubescence, which gives the insect a more cinereous and silken appearance. Its head too is not quite so *straightly* truncated at the base; and its eyes are appreciably larger; its limbs are a trifle longer, paler, and more fragile; and the terminal joint of its antennæ is not quite so abbreviated.

APPENDIX.

WHILE this volume has been going through the press a most important addition has been made to the Coleoptera of St. Helena by Mr. P. Whitehead, who has sent me a single example of the curious little *Cossyphodes Wollastonii*, which he obtained at Woodcot. Considering the practically blind condition, and the ant-associating habits, of this most remarkable beetle, and the fact that it had hitherto been observed nowhere except in the Madeiran, Canarian, and Cape-Verde archipelagos, the importance (geographically) of so unexpected a capture could scarcely have been overrated did it not occur to me as at least *possible* that the species may originally have been imported into the island along with consignments of plants. In favour of this supposition is the fact that the self-same kind of ant with which it is found in company in the more northern groups, namely the *Ecophthora pusilla*, Heer (or the common "House-Ant" of Madeira), is the particular one which abounds at St. Helena from the sea-level to the summit of the central ridge; and (universal as it is now) it is hardly *likely* that it was ever a truly aboriginal member of the fauna; in which case, if the ant was originally introduced, there seems no reason why the *Cossyphodes* should not have come with it. But, on the other hand, if the *Cossyphodes* is literally confined to our Atlantic-island "province" (of which, however, we possess no proof, beyond the circumstance that it does not happen as yet to have been noticed elsewhere), there is nothing more improbable than that it should have found its way *accidentally*, along with the *Ecophthora*, to St. Helena; for I am not aware that the latter has ever had any intercommunication with the three more northern archipelagos, which are entirely in the hands of the Spaniards and Portuguese. Yet so plentiful is this especial ant at Madeira that, *if* it should so happen that shrubs and plants have ever been received from that island, it would be well-nigh impossible that they should have been packed for consignment without numbers of the *Ecophthora* being intermingled with the earth used for that purpose; and, as just urged, if the *ant* can be

imagined to have been thus transmitted, I see no reason why the presence of its little Coleopterous associate should not be tested by the same hypothesis. At the same time, if the *Cossyphodes* should be ascertained ultimately (as is highly probable) to exist elsewhere than in these particular Atlantic groups, the main difficulty which suggests itself as regards its introduction will be at once removed. And I may just state, in this connexion, that the *genus* at all events is *not* a purely insular one, but likewise *African*,—a second exponent of it (the *C. Bewickii*, Woll.) having been discovered by the late Mr. Bewicke, in 1860, within an ants' nest ("on the Atlantic side of the promontory of the Cape, about three or four hundred feet above the sea"), near Capetown; whilst a third (the *C. Raffrayi*, Gestro) was communicated to me a few years ago as having been obtained in Abyssinia; so that there is no reason why even this actual *species* (namely the *C. Wollastonii*, Westw.) should not be African equally, and have been established at St. Helena from some *other* district than the islands which lie so much further to the north.

In the general enumeration, the family *Endophlœidæ*, in which I would provisionally place this anomalous little form, should be made to follow immediately after p. 42 and just before the *Trogositidæ*; and the species may be thus cited:—

Fam. 6*. ENDOPHLÆIDÆ.

Genus 17*. COSSYPHODES.

Westwood, *Trans. Ent. Soc. Lond.* i. 168 (1851).

39*. *Cossyphodes Wollastonii*.

C. elliptico-oblongus, valde depressus, in lineâ dorsali obtuse carinatus sed versus latera valde explanato-subrecurvus, ubique ferrugineus, minutissime subsericato-alutaceus, subopacus; capite semicirculari, utrinque (inter discum et latus) lineolâ (oculum obsoletum continente) impresso: prothorace transverso, antice et postice sinuato, ad latera subrecto, utrinque lineis aut costulis tribus longitudinalibus instructo; elytris ovalibus basi late truncatis, utrinque costulis quatuor longitudinalibus notatis; antennis pedibusque brevissimis, sub margine corporis explanato absconditis. Long. corp. lin. $1\frac{1}{2}$.

Cossyphodes Wollastonii, *Westw.*, *l. c.* 170 (1851).

— — —, *Woll.*, *Ins. Mad.* 146, t. 3. f. 3 (1854).

— — —, *Id.*, *Col. Atl.* 130 (1865).

— — —, *Id.*, *Col. Hesp.* 65 (1867).

Habitat in intermediis insulæ; a Dom. P. Whitehead ad Woodcot lectus.

Apart from its minute stature and extremely flattened, *Cossyphus*-like body (the largest examples measuring no more than a line and a half in length), the *C. Wollastonii* may be recognized by its elliptical-oblong outline—the head, prothorax, and elytra, all of which are much dilated at the sides, being in the *same continuous curve*,—by its uniformly reddish-ferruginous hue, its only slightly shining subalutaceous surface, and by its obtusely keeled dorsal region—which is supplemented on either side by a few longitudinal costæ, of which the prothorax has three and the elytra four. Although its limbs are so short as to be concealed beneath the expanded edges of the body, and although its eyes are strictly obsolete, the *C. Wollastonii* is nevertheless able to run with considerable velocity.

The South-African *C. Bewickii* has its (nevertheless very minute and rudimentary) eyes rather more traceable than those of the *C. Wollastonii*; it is also a trifle broader, less keeled down the dorsal region; and its entire margin (especially behind) is a little more recurved. Its prothorax is shorter, and nearly free from longitudinal costæ (there being only the faintest possible indication of an obsolete line on either side); and its elytra, which are more acute posteriorly, have only *three* (instead of four), and those exceedingly fine, elevated costæ down each. For a description and figure of the *C. Bewickii*, vide 'Journ. of Ent.' i. 133, pl. xi. f. 2.

CATALOGUE.

GEODEPHAGA.

Carabidæ.

1. HAPLOTHORAX, Waterh.
 1. *Burchellii*, Waterh.
2. CALOSOMA, Weber.
 2. *helenæ*, Hope.
 - β. *haligena*, Woll.
3. PRISTONYCHUS, Dej.
 3. *complanatus*, Dej.
4. BEMBIDIUM, Latr.
 - (*Notaphus*, Dej.)
 4. *Mellissii*, Woll.
 - (*Apteromimus*, Woll.)
 5. *platyderoides*, Woll.
 - (*Pseudophilochthus*, Woll.)
 6. *nubigena*, Woll.
 7. *Grayanum*, Woll.
 8. *sublimbatum*, Woll.
 9. *trechoides*, Woll.
 - (*Endosomatium*, Woll.)
 10. *megalops*, Woll.
 11. *dicksoniæ*, Woll.
 12. *rufosuffusum*, Woll.
 13. *gemmulipenne*, Woll.
 14. *fossor*, Woll.
 15. *evanescens*, Woll.

PHYLHYDRIDA.

Sphæridiidæ.

5. CYCLONOTUM, Erich.
 16. *dytiscoides*, Fab.
6. DACTYLOSTERNUM, Woll.
 17. *abdominale*, Fab.

TRICHOPTERYGIA.**Trichopterygidæ.**

- 7. PTINELLA, Mots.
- 18. *Matthewsiana*, Woll.

BRACHELYTRA.**Staphylinidæ.***(Aleocharides.)*

- 8. ALEOCHARA, Grav.
- 19. *puberula*, Klug.
- 9. HOMALOTA, Mann.
- 20. *coriaria*, Kraatz.
- 21. *helenensis*, Woll.

(Staphylinides.)

- 10. CREOPHILUS, Steph.
- 22. *maxillosus*, Linn.
- 11. PHILONTHUS (Leach), Curt.
- 23. *flavoterminalis*, Woll.
- 24. *longicornis*, Steph.
- 25. *discoideus*, Grav.
- 26. *nigritulus*, Grav.
- 27. *turbidus*, Erich.

(Xantholinides.)

- 12. XANTHOLINUS, Dahl.
- 28. *morio*, Woll.
- 29. *armatus*, Woll.

(Pæderides.)

- 13. LITHOCHARIS, Erich.
- 30. *ochracea*, Grav.
- 31. *debilicornis*, Woll.

(Oxytelides.)

- 14. OXYTELUS, Grav.
- 32. *sculptus*, Grav.
- 33. *alutaceifrons*, Woll.
- 34. *nitidifrons*, Woll.
- 15. TROGOPHLEUS, Mann.
- 35. *corticinus*, Grav.

NECROPHAGA.**Nitidulidæ.**

- 16. CARPOPHILUS, Steph.
- 36. *hemipterus*, Linn.
- 37. *dimidiatus*, Fab.

Monotomidæ.

- 17. MONOTOMA, Hbst.
- 38. spinicollis, Aubé.
- 39. picipes, Hbst.

Endophleuidæ.

- 17*. COSSYPHODES, Westw.
- 39*. Wollastonii, Westw.

Trogositidæ.

- 18. TROGOSITA, Oliv.
- 40. mauritanica, Linn.

Cucujidæ.

- 19. LÆMOPHLEUS, Casteln.
- 41. pusillus, Schön.
- 42. carinulatus, Woll.
- 20. CRYPTAMORPHA, Woll.
- 43. musæ, Woll.
- 21. SILVANUS, Latr.
- 44. surinamensis, Linn.

Cryptophagidæ.

- 22. CRYPTOPHAGUS, Hbst.
- 45. badius, St.
- 46. affinis, St.
- 47. gracilipes, Woll.

Latridiidæ.

- 23. ANOMMATUS, Wesm.
- 48. 12-striatus, Müll.
- 24. CORTICARIA, Mshn.
- 49. elongata, Gyll.
- 25. LATRIDIVS, Hbst.
- 50. nodifer, Westw.
- 51. approximatus, Woll.

Mycetophagidæ.

- 26. MYCETÆA, Steph.
- 52. hirta, Gyll.
- 27. TYPHLEA, Steph.
- 53. fumata, Linn.

Dermestidæ.

- 28. DERMESTES, Linn.
- 54. cadaverinus, Fab.
- 55. vulpinus, Fab.
- 29. ATTAGENUS, Latr.
- 56. gloriosæ, Fab.

Histeridæ.

- 30. TRIBALUS, Erich.
57. 4-striatus, Woll.
- 31. SAPRINUS, Erich.
58. bicolor, Fab.

LAMELLICORNIA.**Aphodiidæ.**

- 32. APHODIUS, Illig.
59. granarius, Linn.
60. lividus, Oliv.

Trogidæ.

- 33. TROX, Fab.
61. Whiteheadii, Woll.

Rutelidæ.

- 34. ADORETUS, Casteln.
62. versutus, Harold.

Dynastidæ.

- 35. HETERONYCHUS, Burm.
63. arator, Fab.
- 36. MELLISSIUS (Bates), Woll.
64. eudoxus, Woll.
65. adumbratus, Woll.

PRIOCERATA.**Elateridæ.**

- 37. ANCHASTUS, Lec.
66. compositarum, Woll.
67. atlanticus, Cand.

Cleridæ.

- 38. CORYNETES, Hbst.
68. rufipes, Thunb.

Ptinidæ.

- 39. GIBBIUM, Scop.
69. scotias, Fab.

Anobiidæ.

- 40. ANOBIUM, Fab.
70. velatum, Woll.
71. paniceum, Linn.
72. domesticum, Fourc.
73. confertum, Woll.

Bostrichidæ.

- 41. RHIZOPERTHA, Steph.
- 74. bifeveolata, Woll.
- 75. pusilla, Fab.

RHYNCHOPHORA.**Tomicidæ.**

- 42. TOMICUS, Latr.
- 76. æmulus, Woll.

Hylesinidæ.

- 43. HYLURGUS, Latr.
- 77. ligniperda, Fab.

Cossonidæ.*(Stenoscelides.)*

- 44. STENOSCELIS, Woll.
- 78. hylastoides, Woll.
- 45. PSEUDOSTENOSCELIS, Woll.
- 79. sculpturata, Woll.
- 80. asteriperda, Woll.
- 81. longitarsis, Woll.
- 82. alutaceicollis, Woll.
- 83. compositarum, Woll.
- 84. minima, Woll.
- 46. PACHYMASTAX, Woll.
- 85. crassus, Woll.

(Cossonides.)

- 47. PHLÆOPHAGUS, Schön.
- 86. æneopiceus, Bohem.
- 48. HEXACOPTUS, Woll.
- 87. ferrugineus, Woll.

(Pentarthrides.)

- 49. PENTARTHRODES, Woll.
- 88. dicksoniæ, Woll.
- 89. filicum, Woll.
- 50. PSEUDOMESOXENUS, Woll.
- 90. minutissimus, Woll.
- 91. subcæcus, Woll.
- 92. scrobiculatus, Woll.
- 51. ISOTORNUS, Woll.
- 93. retractilis, Woll.
- 94. aterrimus, Wol

52. MICROXYLOBIUS, Chév.
95. *tritiratus*, Woll.
96. *Whiteheadii*, Woll.
97. *oculatus*, Woll.
98. *lucifugus*, Woll.
99. *calcaratus*, Woll.
100. *dimidiatus*, Woll.
101. *bisectus*, Woll.
102. *sculpturatus*, Woll.
103. *bicaudatus*, Woll.
104. *granulosus*, Woll.
105. *lacertosus*, Woll.
106. *opacus*, Woll.
107. *vestitus*, Woll.
108. *Westwoodii*, Chev.
53. ACANTHOMERUS, Bohem.
109. *armatus*, Bohem.
110. *conicollis*, Woll.
111. *ellipticus*, Woll.
112. *monilicornis*, Woll.
113. *similis*, Woll.
114. *debilis*, Woll.
115. *cylindricus*, Woll.
116. *angustus*, Woll.
117. *asperatus*, Woll.
118. *terebrans*, Woll.
119. *obliteratus*, Woll.
54. EULOPTODERUS, Woll.
120. *vermiculatus*, Woll.
121. *affinis*, Woll.
55. CHALCOTROGUS, Woll.
122. *apionides*, Woll.
123. *oblongior*, Woll.
124. *semipolitus*, Woll.
56. LAMPROCHRUS, Woll.
125. *cossonoides*, Woll.
57. XESTOPHASIS, Woll.
126. *nasalis*, Woll.
58. TAPIROMIMUS, Woll.
127. *gibbistrostris*, Woll.
59. TYCHIORHINUS, Woll.
128. *variolosus*, Woll.
129. *porrectus*, Woll.
130. *inæqualis*, Woll.
131. *subochraceus*, Woll.
132. *lineatus*, Woll.

60. CRYPTOMMATA, Woll.
133. *cucullata*, Woll.

Rhynchophoridae.

61. CALANDRA, Clairv.
134. *oryzæ*, Linn.

Tanyrhynchidæ.*(Synaptonychides.)*

62. NESIOTES, Woll.
135. *squamosus*, Woll.
136. *barbatus*, Woll.
137. *fimbriatus*, Woll.
138. *breviusculus*, Woll.
139. *horridus*, Woll.
140. *gracilis*, Woll.
141. *minor*, Woll.
142. *simplex*, Woll.
143. *asperatus*, Woll.
144. *ascendens*, Woll.

Trachyphlœidæ.

63. TRACHYPHLÆOSOMA, Woll.
145. *setosum*, Woll.

Otiorhynchidæ.

64. SCIOBIUS, Schön.
146. *subnodosus*, Woll.
65. OTIORHYNCHUS, Germ.
147. *sulcatus*, Fab.

Brachyderidæ.

66. SITONA, Germ.
148. *lineatus*, Linn.

Anthribidæ.*(Aræocerides.)*

67. ARÆOCERUS, Schön.
149. *fasciculatus*, De Geer.

(Notioxenides.)

68. NOTIOXENUS, Woll.
150. *Bewickii*, Woll.
151. *subfasciatus*, Woll.
152. *alutaceus*, Woll.
153. *dimidiatus*, Woll.
154. *Janischi*, Woll.
155. *Dalei*, Woll.
156. *Grayii*, Woll.
157. *æneus*, Woll.
158. *congener*, Woll.
159. *rufopictus*, Woll.

68. NOTIOXENUS, Woll. (*continued*).160. *rotundatus*, Woll.161. *ferrugineus*, Woll.(*Homœoderides*.)

69. HOMŒODERA, Woll.

162. *elateroides*, Woll.163. *nodulipennis*, Woll.164. *Edithia*, Woll.165. *major*, Woll.166. *compositarum*, Woll.167. *pygmæa*, Woll.168. *pumilio*, Woll.169. *rotundipennis*, Woll.170. *alutaceicollis*, Woll.171. *asteris*, Woll.172. *Paivæ*, Woll.173. *coriacea*, Woll.174. *globulosa*, Woll.

70. ACARODES, Woll.

175. *gutta*, Woll.

Bruchidæ.

71. BRUCHUS, Geoffr.

176. *rufobrunneus*, Woll.177. *advena*, Woll.

EUCERATA.

Cerambycidæ.

72. CURTOMERUS, Steph.

178. *pilicornis*, Fab.

Lamiidæ.

73. COPTOPS, Serv.

179. *bidens*, Fab.

PHYTOPHAGA.

Halticidæ.

74. LONGITARSUS, Latr.

180. *helenæ*, Woll.181. *janulus*, Woll.182. *Mellissii*, Woll.

Cassididæ.

75. ASPIDOMORPHA, Hope.

183. *miliaris*, Fab.

PSEUDOTRIMERA.

Coccinellidæ.

76. CHILOMENES, Chev.

184. *lunata*, Fab.185. *vicina* (Dej.), Muls.

77. THEA, Muls.
186. *variegata*, Fab.
78. EPILACHNA, Chevr.
187. *chrysomelina*, Fab.

Corylophidæ.

79. SERICODERUS, Steph.
188. *lateralis*, Gyll.
80. ORTHOPERUS, Steph.
189. *atomarius*, Heer.

Erotylidæ.

81. EUXESTUS, Woll.
190. *phalacroides*, Woll.

HETEROMERA.**Opatridæ.**

82. OPATRUM, Fab.
191. *hadroides*, Woll.
83. HADRODES, Woll.
192. *helenensis*, Woll.
84. TARPHIOPHYSIS, Woll.
193. *tuberculatus*, Woll.

Ulomidæ.

85. ALPHITOBIVS, Steph.
194. *diaperinus*, Kugel.
195. *piceus*, Oliv.
86. GNATHOCERUS, Thunb.
196. *cornutus*, Fab.
87. TRIBOLIUM, MacL.
197. *ferrugineum*, Fab.

Tenebrionidæ.

88. TENEBRIO, Linn.
198. *obscurus*, Fab.
89. ZOPHOBAS, Blanch.
199. *concolor*, Woll.

Mordellidæ.

90. MORDELLA, Linn.
200. *Mellissiana*, Woll.

Anthicidæ.

91. ANTHICODES, Woll.
201. *maculatus*, Woll.
202. *fragilis*, Woll.

187. *Chrysomelidae*
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190. *Chrysomelidae*
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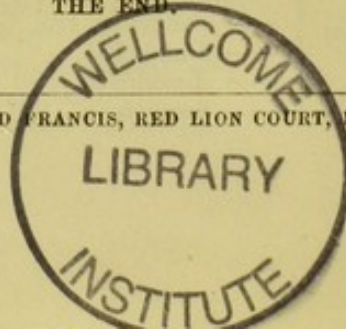
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